THE EXPERIENCE OF STRESS AMONGST IRISH NURSES

A Survey of Irish Nurses Organisation Members

MAIN REPORT
The experience of stress amongst Irish nurses -
A survey of Irish Nurses Organisation members
As President of the Irish Nurses Organisation, it is with a tremendous sense of pride and achievement I welcome the publication of the Stress Study Report.

Much credit is due to the delegates at Annual Delegate Conference, in 1991, for the adoption of the motion to fund the Study and to the Executive Council, in 1992, for commissioning it.

The INO acknowledges with grateful thanks the partial funding received from the EC.

I wish to publicly acknowledge and record my sincere appreciation to Dr Richard Wynne and his staff at the Work Research Centre for their professional approach, patience and guidance throughout the Study.

A steering committee was set up to assist in devising the questionnaire and to monitor the progress of the Study on your behalf. The members of that committee were - Anne Cody, Liz Guinan, Siobhan McSweeney, Anna Monaghan, Peg Nealon, Dympna Walsh and Kathy Foy, staff member, INO. This involved a commitment of their time which they gave willingly and unquestionably with a firm sense of purpose and commitment to the task. I thank each of them most sincerely and commend them for their diligence to the project.

All of you, who responded to the questionnaire, provided the results necessary for the authenticity leading to this publication. I am truly grateful.

In welcoming this Study, it is as well to remind you that the Study must be of benefit to our members in determining better conditions of employment, education, occupational health counselling and, not least, the need to be consulted in the development of future health policies in general and nursing policies in particular. This Study is also useful as a reference and should be a mandatory purchase for every Nursing Library in the country.

Stress is a concept which evolved from engineering - it describes how material, when unequal to the pressures placed upon it, eventually weakens and breaks, causing total failure of function. Not all stress is negative. Stress can act as a stimulus - working under a certain amount of pressure generates positive action in some individuals. Stress can be functional, leading to learning and increasing the ability to cope. It can also be dysfunctional, leading to poor performance and attainment. A sense of personal control is important. If the demands made exceed the ability to cope then stress is felt - if the demand is met then one has a sense of achievement. So, stress is pertinent to individuals and their level of ability to cope.
We will never have a stress-free working environment because of the nature of nursing. A strategy of coping needs to be developed and there are two ways of doing this:

Direct - By change of work practices;
- Prioritising work at ward level
- Peer support.

Indirect - By education in nursing and training development;
- By a properly-focused leisure and relaxation plan.

At present a palliative method of coping is most frequently used but it is the least acceptable.

Employing Agencies have a duty of care to employees and that must be invoked. The high level of morbidity amongst nurses is a serious problem in financial terms, not to mention the interference in the smooth running of the Health Service.

Absenteeism, owing to stress-related illness, must be addressed - not least by an active and realistic Occupational Health Service for nurses, which would include a comprehensive and confidential counselling service.

We must not be ashamed to say when we are stressed, to shout STOP so we do not reach the point of no return - "Burnout". If, as professionals, nurses are unable or unwilling to care for themselves, how can they be expected or even trusted to care for others?

The publication of the Report will ensure a healthy debate on coping strategies and the development of coping mechanisms for the nurse of the nineties and a fitting legacy of professional awareness for the twenty-first century.

KATHERINE J. CRAUGHWELL
PRESIDENT

FOREWORD

This Study represents a major break-through by which nurses, speaking for themselves, and having their comments scientifically and analytically interpreted, identify the level and extent of stress in nursing.

The Study is the first comprehensive, objective and scientific study of this major and growing area of concern to the profession.

The Irish Nurses Organisation invited the Work Research Centre to undertake the Study in order to validate its claim of several years that nurses and midwives are subject to stress while providing positive health care to all other members of society.

The fact that the Study confirms the arguments presented on many previous occasions by the Organisation should not be interpreted negatively. Rather, the Study is presented to provide an opportunity to academics, analysts, professionals and employers to evaluate, on the one hand, the contribution made by nurses (the single largest element in any health service workforce) to the health services and, on the other, to enable employers to identify the cost to the Health Services of not providing nurses with a stress-free work environment.

All of this must be seen against the background of the growing demands being made on employers arising from EC Directives which, in turn, are themselves applying elements of the Safety, Health and Welfare at Work Act (1989). In evidence of this we are pleased to record our appreciation to the European Commission for part funding this Study.

In order to guarantee the integrity of the analysis presented in these pages, and the conclusions drawn from them, no commercial sponsorship was sought by the Organisation for the Study. It has been funded, aside from the generous contribution of the EC, by the members of the Irish Nurses Organisation.

The result is, therefore, the property of the Irish Nurses Organisation and one in which every nurse and midwife should take pride and to which each should also claim ownership.

In a particular way the Executive Council of the Organisation wish to place on record their appreciation to each nurse and midwife who took the trouble to respond to the very-detailed questionnaire whose results form the basis of the analysis.
Through the involvement of the Work Research Centre, whose staff were responsible for all elements of structuring the questions and analysing the data - the Executive Council remaining at arms length from the exercise in order to guarantee its validity - we are satisfied that the Study will prove valuable to academicians, researchers, employers and, not least, to all nurses and midwives, including student nurses.

Finally, it is the hope of the Executive Council that this Study, in raising issues which require further analysis, will, in turn, be an agent for additional, more-specialised studies which can only benefit this historic, important, ever-relevant profession, to a broadening of its research base.

Acknowledgements

The authors would like to thank the following people for their help in conducting this survey:

- The INO Stress Committee - Anne Cody, Liz Guinan, Siobhan McSweeney, Anna Monaghan, Peg Nealon, Dympna Walsh and Kathy Foy, staff member, INO - for their invaluable efforts in helping to design the questionnaire, helping in the administration of the study and commenting on the results of the survey as they emerged.

- Ms Katherine Craughwell, President of the INO, for her continuing interest in the survey.

- Mr P. J. Madden, General Secretary of the INO, for his interest, support and advice during the conduct of the study.

- Mr Kevin Downey, INO, for his help in drawing up the sample.

- Ms. Audrey Sherlock, WRC, for her help in administration and data entry.

- The European Year of Safety, Hygiene, and Health Protection at Work (through the Health and Safety Authority) for their financial support.

- All of the nurses who helped ensure the return of the questionnaires.

- All of the nurses who returned completed questionnaires, without whom there would have been no survey.
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Chapter 1 The nature of stress

1.1 A definition of stress

There is often confusion concerning the meaning of the word stress. Originally derived from engineering practice where the concepts of stressors and strain are applied to the behaviour of materials in demanding conditions, these concepts are also applied to the study of stress in humans. In humans a significant addition to these concepts has been defined, and that is the issue of coping strategies or the adaptive mechanisms used by the individual to manage stress.

When asked about the meaning of the word stress, many people volunteer replies centred on anxiety, pressure or demands as definitions. In fact these factors are all subsumed by the model of stress which is now current. A useful definition of the word stress is that:

Stress occurs when the demands on people exceed their capacity to meet them.

This definition is significant in that it identifies all three aspects of what might be termed the stress process. It identifies sources of stress in the form of demands, it refers to the outcomes of stress when capacity is exceeded, and it refers to the coping process in terms of the individual’s capacity to meet demands. (Figure 1.1 outlines this model of the stress process).

![Figure 1.1 A model of the stress process](image)

1.2 What is it about situations which make them stressful?

A common observation is that many different kinds of situations (indeed most situations) appear to be capable of being stressful. An equally common observation is that people react in very different ways to similar situations. These two kinds of observations have led to confusion about the meaning and validity of stress. In fact, stressful situations involve a range of psychological, social and physical characteristics. Research shows [1] that if situations can be described as being:
then these situations are likely to be stressful for most people. An interesting point about
these situations is that some of them are generally regarded as being positive. For example, a
challenging situation is usually seen as being a positive experience, and in many ways is the
reverse of a threatening situation. Equally, monotonous situations can be sought as an
antidote to challenge.

1.3 What actually happens when we come under stress?

When we face situations which have the characteristics outlined above, a stress response is
initiated. This is an adaptive mechanism which allows us to meet the demands of the full
range of situations in which we find ourselves. The stress response or reaction involves:

- Information about potentially stressful situations is picked up through our
  sensory receptors, our eyes, our ears, etc.

- This information travels via sensory pathways to the brain where two parallel
  processes occur. Firstly, a cognitive interpretation of the situation occurs
  (taking place in the cortex or surface area of the brain), i.e. we assess what
  we think about the situation. Secondly, an affective integration of the
  situation also occurs (taking place in the limbic system of the brain located in
  the brain stem) i.e. we assess what we feel about the situation. These two
  parallel processes enable decisions to be made about how to react to the
  situation.

- If, as a result of these two processes, a threat or challenge is perceived, a
  stress response is initiated. On the other hand, if no threat or challenge is
  perceived no stress response occurs. The stress response is driven by the
  hypothalamus (a gland located just below the brain which produces
  hormones that control and regulate a range of physiological functions) and
  produces two parallel reactions in the body which are slightly staggered in
  time.

- The first reaction is in the nervous system while the second takes place in the
  endocrine system (a system of glands which produce and inject hormones
  into the bloodstream for the purpose of controlling and regulating a range of
  physiological functions). In combination this response has been called the
  "flight or fight" reaction. In other words, the mind and body are prepared for
  either fighting or fleeing in relation to the stressful event. This is an
  adaptive response in so far as it focuses our concentration, moves blood flow
  from the digestive system to the peripheral muscles, increases heart rate and
  it increases respiratory rate, thereby allowing ready response to the situation.

These kinds of reactions are useful if the option is available to fight or to flee. The problems
with stress, and particularly occupational stress, is that it is rarely appropriate to fight or flee
in the face of stress in the workplace. Stress which builds up over time, which is unresolved
or which comes from multiple sources tends to cause problems in the longer term.

1.4 What are typical sources of stress at work?

There are many ways of looking at stress. One of the most useful ways of viewing stress is to
classify the sources of stress which we experience into:

- those occurring in the workplace;
- those occurring outside of work; and
- those arising from personal sources.

Looking briefly at the sources of stress outside of work, situations which have been called
Life Events have been found to be important.

These are major situations which happen to us more or less infrequently but nonetheless
carry an imperative for change and coping. Examples of life events include births, deaths,
marriages, borrowing money, taking holidays, financial pressures, family pressures and living
conditions.

In the questionnaire which was designed for this stress survey among nurses, life events were
extensively examined as a means of investigating and controlling for stress arising outside of
the workplace. The information collected in this way has been used to help answer the extent
to which work and non-work stressors are related to the outcomes of stress.

Personal sources of stress basically stem from our personality. For example, there is the so-
called Type "A" personality or behaviour pattern which is characterised by competitiveness,
by aggression and by being over-involved in the job. These have been shown to be related to
a range of stress related outcomes such as:

- hypertension;
- coronary heart disease;
- ulcers; and
- some of the social effects of stress.

Unrealistic expectations of behaviour by ourselves or others can also be a major source of
stress. In addition, the outcomes of stress themselves (for example, high blood pressure,
ulcers, anxiety) can become sources of stress in their own right. This can result in a situation
of negative feedback about our personal condition which tends to amplify the experience of
stress.

1.5 What are occupational stressors?

One of the most useful frameworks, the one which has been adopted in this particular survey,
looks at occupational stress in terms of eight different dimensions, i.e.

- working conditions;
- the roles we fulfil;
- the work/home interface;
- the nature of the job;
- relationships at work;
- organisational structure/climate;
- career development;
- the physical work environment.
In the present context the 'organisation' may be taken as referring to the nurses work environment, be it a hospital, the community, an industrial setting or the health care system as a whole.

Stress arising from working conditions refers to issues such as shift work, the way work is organised, pay and conditions under which we work, the number of hours worked, etc.

Relationships at work refer to the quality of relationships with peers, subordinates or supervisors. It also covers such issues as consultation, communications, and feedback about performance at work.

A further source of stress resides in the nature of the roles that we fulfil in our jobs. Specific aspects of interest here concern role conflict and role ambiguity. There are other aspects of role which may cause stress but role conflict and ambiguity are among the more important features which must be examined. Role conflict can refer to actual conflict within the role where there is an expectation to perform tasks which are inherently in conflict with one another. It can also reflect the situation where roles are structurally in conflict with the roles of other people. Role ambiguity, which is perhaps more common, refers to the situation whereby the work roles are not clear and well defined, either to the role holder or to related other role holders.

The organisational structure and climate refers to those often intangible issues which characterise the "feel" of an organisation. However, these issues set the tone of how an organisation works and how it influences the processes which are necessary for organisational survival and development. Important issues here include communications policy and practice, major changes in the workplace and the mood or climate of the organisation.

The work/home interface (and stresses arising from it) are becoming an increasing source of stress for many people in recent years particularly given the increase in the number of dual income couples in the labour force. In addition, there is evidence of raised expectations (among both men and women) of what men must do in the home. Finally, there is also some evidence of a lessening of commitment to the employing organisation among employees. These three factors have combined to make the home/work interface a more important source of stress than perhaps it was twenty or thirty years ago.

Stresses arising from career development almost always occur due to lack of career development rather than too much of it. Career blocks, underutilisation of skills or failing to reach full potential can be severe sources of stress for many in work. However, it should also be noted that over-promotion can occur, the so called Peter Principle, and this again can be a major source of stress for some. It should be noted that career development is not confined solely to issues of promotion or grading, but also includes issues relating to the core tasks and basic skills of any given job.

Stresses arising from the nature of the job (intrinsic factors) concern demands which are an intrinsic part of the job, and to some extent, go with the job.

Taking nurses as an example, intrinsic stresses concern for example, dealing with death and dying, inadequate preparation for the job, conflicts with nurses and physicians and high workload. Different aspects of workload can be examined. For example, workload should not be judged merely in terms of quantitative overload, but also in terms of qualitative overload which refers to the difficulty and complexity of doing a job given the time and resources at the worker's disposal. Similarly, the issue of underload must be noted. These sources of stress are also examined in the survey.

Finally, sources of stress can arise from the physical work environment. Here the focus is not so much on the actual effects of physical stresses such as heat or cold or noise, but on the psychological results of these sources of stress. The physical environment can have physical effects in its own right, but it also has psychological and social effects which are of particular concern in this context. For example, we are concerned not so much with the levels of noise as with the levels of annoyance and interruptions to social relations that nurses experience due to noise. There is a comprehensive examination of the sources of physical stress contained within the questionnaire.

1.6 Is stress always negative?

Stress is not necessarily a negative phenomenon. A well known finding from the scientific literature, based on the early work of Yerkes and Dodson [2], states that stress has an inverted "U" relationship with performance, satisfaction and many other desirable outcomes (See Figure 1.2). In practice this means that too little stress or too little challenge leads to under-stimulation and we tend to experience symptoms of boredom, fatigue, frustration and dissatisfaction. However, as stress increases an optimum stimulation level is reached which is characterised by creativity, rational problem solving, progress, change and a general level of satisfaction. When stress becomes a real problem we become over-stimulated or overloaded by stress. Typical responses include irrational problem solving, exhaustion, illness, low self-esteem and many other undesirable outcomes.

![Figure 1.2 Stress and performance (after Selye, 1978)](image-url)
1.7 What are the consequences of stress?

Stress is a pervasive phenomenon and can, in theory, be related to almost any physical, social or psychological outcome. A useful way of looking at these consequences and particularly the negative consequences that can occur, is to examine them in terms of the effect they have on (i) the individual, (ii) the family and social group, and (iii) the organisation. (In this context the organisation is taken to mean the natural unit of analysis. For example, it could be the employer, a subsidiary, a plant or a hospital.)

Individual costs include effects on health, on behaviour, on wellbeing and on decision making. Family costs include reduced social interaction and poor quality of relationships. The effects on the social group include higher levels of conflict and lower participation. From the organisational perspective, negative effects on indicators of organisational performance such as:

- absenteeism;
- productivity;
- increased pay awards;
- opportunities for the organisation to grow and perform;
- risk taking;
- industrial relations

have been shown to be related to stress [3].

1.7.1 The physical effects of stress

In relation to physical effects of stress, research shows [4] that stress can have a major influence on the development of:

- many cardiovascular conditions such as increased blood pressure and ultimately coronary heart disease;
- gastrointestinal problems including ulcers and stomach upsets;
- musculoskeletal problems such as pains and aches in the neck, in the back and various other parts of the body; and
- skin problems.

High levels of stress also have an effect on the immune system such that the competence of the immune system is reduced, thus leaving the body more open to infection. Finally, sleep quantity and quality are often reduced as a result of stress. Sleep disruption is a good indicator of stress in personal terms since sleep is one of the first physical indicators likely to be affected by stress.

1.7.2 The behavioural and social effects of stress

Behavioural effects of stress largely refer to increased negative health related behaviours, i.e., increased levels of nicotine intake, increased levels of alcohol intake, and increased or decreased levels of food intake. A range of socio-behavioural effects are also related to stress. These include lower participation in both formal and informal social groups. One of the first social indicators of stress tends to be reduced levels of social interaction.

1.7.3 The psychological effects of stress

The psychological effects of stress are also many and varied. Typical signs include increased levels of anxiety, depression and irritability, and decreased levels of performance. It should be said that these changes can be made up of fairly low level increases in anxiety and depression for example, or they can be related to more fully blown clinical conditions.

1.8 What is coping?

The issue of coping is most important in any consideration of the issue of stress be it in the workplace or outside of work. It refers to the behaviours and actions taken to either manage demands, alter perceptions of stress or to manage the outcomes of stress (See Figure 1.1).

It is typically assumed that coping is the responsibility of the individual. However, this proposition must be examined with care as it often leads to a situation where the victims of stress are blamed for being victims, the so-called “victim blaming” syndrome. There is much evidence to suggest that the individual trying to cope with work related stress is perhaps not the most effective way to manage stress for either that individual or for the organisation.

An important study of this issue was conducted a number of years ago where it was found that the efficacy of different coping styles varied according to the nature of stress which people were facing and the arena in which they were actually trying to cope with it [5]. For example, it was found that in coping with stress arising from marital problems that an individually based, problem focused coping style, where the issues were addressed and discussed between the partners, was an effective way of reducing stress in terms of the levels of depression and anxiety that the individuals felt.

It was also found in this study that financial problems in the home were not best addressed by this strategy. The effectiveness of coping was highest when strategies involving denial of the problem were used. Lastly, it was found in this study that individual coping strategies for stresses arising in the workplace tended not to be very effective in reducing the stress level for the individual.

The common thread running through these findings relates to the level of control individuals have over the stresses they face. In the situation where marital problems are being dealt with the individual tends to be able to exert quite a lot of control and, given a willingness, most problems can actually be solved. In relation to financial problems, it is much more difficult to effectively control levels of income. In relation to stresses arising from the workplace, the individual often has almost no control over the level of these demands and it is in this situation that individual coping attempts tend to be at their least fruitful.

The implication of these findings is that for stress to be managed effectively, concerted action on behalf of both the individual and the organisation needs to take place. In the recommendations from this report it will be found that strategies which both the individual and the organisation could put into place will be proposed.

1.9 What are organisational coping strategies?

One framework for examining occupational stress contends that it arises from four principal sources - task demands, physical demands, role demands and interpersonal demands. This
framework provides a useful basis for considering what the organisation can do to cope with stress. In practice there are many programmes and initiatives which can be taken to manage the stress arising from these particular sources.

In relation to task and physical demands, task redesign and job design programmes can be instituted which seek to either reduce these demands or, in the case of boring or monotonous work, to increase variety of work. Similarly, the practice of participative management styles (where managers involve subordinates in decision making which affects them) has been shown to reduce task demands and physical demands on the basis that those who do the jobs often know best how to re-combine them into less stressful and more fruitful kinds of jobs. Career development programmes and the organisation of work in terms of the scheduling of work have also been found to be effective means of managing stress arising from these sources. In relation to role demands and interpersonal demands, techniques such as role analysis, goal setting programmes, instituting social support in the workplace and team building have been found to be effective in managing stress.

An organisation can also establish programmes which seek to boost the coping resources of the individual. In this context, health promotion programmes, employee assistance programmes, staff welfare programmes and training programmes directed at enabling individuals to manage health and wellbeing and work related behaviour (e.g. communications, time management) have also been shown to be effective.

1.10 What are individual coping strategies?

Individuals can, broadly speaking, cope at three levels. They can (i) direct coping strategies at the sources of stress at work over which they have some control. They can (ii) direct coping strategies at their own responses to stress or they can (iii) begin to manage the symptoms of stress which they experience.

In relation to coping strategies directed at the sources of stress individuals can try to alter perceptions of stress, can try to reduce some of these sources of stress by directly managing the personal work environment in a more effective way, or they can engage in lifestyle management.

In relation to coping with the responses to stress (e.g. anxiety, depression, irritability) individuals can engage in strategies such as relaxation training, yoga, having various physical outlets or having various emotional outlets.

Finally, when stress has become a major problem and symptoms have begun to emerge individuals can engage in such activities as counselling, psychotherapy or engaging the services of the medical profession.

1.11 How can coping be organised?

It is important when instituting any preventive stress management programme, be it for individuals or an organisation, that a coherent and rational approach is taken if the stress management plan is to be effective (see Figure 1.3 for the stages of the plan).

The first stage of any such plan is to conduct an organisational stress diagnosis (this survey/report represents this first stage). On the basis of this diagnosis, a plan must be drawn up for prevention (the recommendations section of this report contains such a plan).
Chapter 2 The State of the Art in Nursing Stress

This chapter contains a selective review of the nursing stress literature. It emphasises the general experience of nurse stress in other countries, the kinds of measures adopted to combat stress and points to where valid comparisons can be made.

2.1 Introduction

There are a vast number of international studies on the experience of stress in nursing. Unfortunately, much of this research is of poor quality because of several problems, primarily the unsystematic collection of data. Many studies were conducted using very small samples in very specific situations which questions the generalisability of results beyond the hospital in which the study was conducted [1]. Others are conducted on very large samples derived from multiple institutions without any control for factors across and within these organisations which may differentiate or influence the stress experienced [2]. Finally, many studies rely on anecdotal evidence to illustrate the experience of nursing stress - which makes it difficult to generalise either about the nature of problems or possible solutions to them. In addition, the cultural differences between countries and the structural differences between health care systems in different countries make comparisons difficult.

The main focus of this chapter is to provide the reader with an account of the sources of nursing stress, the outcomes of nursing stress, the coping strategies used by nurses and the intervention strategies which have been used to counteract stress in nursing. A small selection of studies which illustrate these topics are briefly reported on here to introduce the reader to the area.

Nursing is commonly thought to be by its very nature a stressful profession and many of the factors associated with contributing to the experience of stress are experienced by nurses on an almost daily basis. A quote from Hingley [3], while perhaps overstating the point, illustrates some of the stressful situations facing nurses in their daily jobs.

"Everyday the nurse confronts stark suffering, grief and death as few other people do. Many nursing tasks are mundane and unrewarding, many are, by normal standards distasteful and disgusting, others are often degrading, some are simply frightening" Hingley 1984.

Other factors which have been associated with the experience of stress amongst nurses include for example, working in an enclosed atmosphere, working against the clock, excessive noise or undue quiet, sudden swings from intense to mundane tasks, having no second chance to get things right, unpleasant sights and sounds and standing for long hours [4].

Even though nurses are continually confronted by such events they are expected to be caring, professional, supportive, and able to cope at all times, putting the needs of patients first [5]. Against this background it is perhaps hardly surprising that nurses report high levels of stress.

2.2 Stress and Burnout

Within the literature on nursing stress there are two distinct, if overlapping lines of investigation. One comes from the general body of research on work and stress (which emphasises sources of stress and multiple outcomes), while the other comes from a more recent area of study - burnout (which emphasises the outcome syndrome of burnout, sometimes to the exclusion of other outcomes).
Not surprisingly, given the long history of occupational stress research and the more recent tradition of burnout research, there are many definitions of stress and burnout. The following definitions have been used in the present study.

Stress is defined as a dynamic, complex interaction between man and his environment which is dependent on his perceptions of the demands placed on him and on his ability to cope with them [6]. With regard to the nurse, stress can culminate in the experience of unpleasant emotions such as tension, frustration, anxiety and anger resulting from aspects of her work as a nurse.

Burnout has been defined as a syndrome of emotional exhaustion which results from job-related stress and lack of positive conditions within the work environment of employees in various helping professions, e.g., nurses, police, teachers, social workers and psychologists. It has been described as the condition when professionals 'lose all concern, all emotional feeling for the people they work with, and come to treat them in a detached or even dehumanised way' [7]. Also associated with the burnout syndrome are feelings of low job satisfaction and depersonalisation of clients, i.e., where professionals come to view their clients as being in some way responsible for their condition, that blame is attached to clients and that treatment is given in rote rather than humanised fashion.

2.3 Models of nursing stress

Almost all studies of the experience of nursing stress use either explicit or implicit models of stress. These models all recognise the central role of the nurses perception of her circumstances as a trigger for the stress process.

This study employs the social-psychological model of stress, McGrath, 1976 [8] whereby the subjective experience of stress is regarded as highly dependent on the persons assessment of the situation in an organisational setting or work environment.

The model created below is based on the more general model described in chapter 1, but here it outlines the stress process from a nurses perspective. This model has been generated for the purpose of organising the literature and for providing a coherent overview of stress in nursing. It shows the types of issues which act as stressors, and the outcomes of the stress process and how the relationship between these is mediated by the nurses perception of stress and the coping strategies available to her.

2.4 Why is nursing stress a cause for concern

Stress is an important factor in determining job performance, sickness absence, job satisfaction and staff turnover. Occupational stress research shows that stress related illnesses carry a considerable human and economic cost. Typically, human costs have been measured in terms of both mental and physical ill-health, either of which may ultimately lead to impaired job performance, while, economic costs have been measured in terms of turnover and absenteeism.

Within nursing specifically, the economic costs related to stress include absenteeism, rapid staff turnover, reduced quality of patient care and inter-staff conflict [9,10,11,12], while the human costs attributed to high levels of stress are repeatedly shown to contribute to feelings of inadequacy, self-doubt, lowered self esteem, irritability, depression, somatic disturbance, sleep disorders and burnout [13,14,15]. It is apparent from these outcomes that nursing stress, not only affects the nurse, but also the organisation, the patient and the patients family.

Due, in part, to these issues there is growing concern about retention of nursing staff, the attrition rate amongst experienced nurses and the fall in trainee enrolments. One American journal [16] placed the fall in enrolments as high as 30% in 1986. Another article estimated that in Britain [17] the annual wastage rate (number of nurses leaving the profession) was 10% whilst the number of students applying for full time registration was only 8%. Amongst other things this has focused attention on the effects that these circumstances have on the health and well-being of those remaining in the profession [12].

2.5 Measuring stress

As stress is a complex process involving many factors in the psychosocial sphere there are multiple measures of the outcomes of stress available. These focus on physiological, physical health, psychological, behavioural and organisational measures. Estimating the extent of stress amongst nurses is difficult because of the lack of a single widely accepted 'objective' measure of stress.

Among the objective measures which have been used in the study of nursing stress are physiological and behavioural measures. Physiological measures include such measures as heart rate, blood pressure, galvanic skin resistance, endocrine measures and muscle tension. Behavioural indicators of the prevalence of stress in nursing include absenteeism, turnover, and substance abuse. Both these measures are limited in their capacity to provide a complete picture of the outcomes of occupational stress since they may be influenced by a multiplicity of factors.
Measures are also used of sources of stress, coping style and social supports. It is important to measure aspects from all three elements of the stress process if a comprehensive picture of the stress process is to be built up. All too few studies include measures of all three elements.

Other problems with measuring stress stem from the variety of different methodologies used in assessing the sources and levels of stress experienced by nurses. Some studies rely on anecdotal reports gathered during interviews with nurses, others focus on gathering data on specific issues rather than potential causes of stress.

There has also been a tendency on the part of some authors to establish a priori the sources of stress relevant to the nursing population, based on assumptions derived from industrial sources which give little emphasis to those situations which nurses themselves perceive as potentially stressful [1,2,18]. For example in examining the stress which arises from conditions of work, the author may have neglected to consider those difficulties which are specific to nursing, such as working long hours and working shifts and weekends.

The most widely used methods of assessment are subjective measures which rely on self-reporting of nurses' attitudes, emotional states and feelings about their job. Questionnaires are the most commonly used form of self-report [1,2,19,20]. A large number of instruments, which utilise a variety of different classifications to categorise sources of occupational stress amongst nurses, have been developed.

A comparison of the results of three such instruments [19] suggest that four situations appear to be commonly perceived as stressful:

- Difficulties in managing the workload has consistently been identified as a major source of stress (problems of insufficient time to complete nursing tasks while also having to deal with non-nursing tasks e.g. clerical work).
- Stress arising from conflicts between staff (lack of support, lack of involvement in decision making, poor communications between staff appear to be common characteristics underlying this conflict).
- Problems arising from inadequate preparation for the role (difficulty of dealing with the social and emotional needs of patients and relatives and in the case of the senior nurse sample, lack of confidence in the managerial role).
- Dealing with death and dying emerged as a major source of stress (though the WRC's own limited research prior to this study indicated that this may not be as large a source of stress for nurses as it appears to be in the US).

The present study employs a widely used questionnaire developed by Gray-Toft and Anderson [1981] [20] to assess nursing situations which may contribute to the experience of stress. The scale consists of 34 potentially stressful situations which nurses were asked to rate how frequently they experienced such situations as stressful. From the results of a study on 122 nurses they classified sources of nursing stress under seven headings:

- Death and Dying,
- Conflict with Physicians,
- Inadequate Preparation in Dealing with the Emotional Needs of Patients and Their Families,
- Lack of Staff Support,
- Conflict with Other Nurses and Supervisors,
- Excessive Work Load and
- Uncertainty concerning the Treatment of Patients.

Another commonly used measure of assessing the stressfulness of nursing is based on intentions to quit the profession. In a recent study carried out in Northern Ireland 59% of nurses reported that they had thought of leaving the profession at some point, with over a third of all respondents having considered leaving in the past year [23]. Another study showed that 6 out of 10 nurses said they intended to leave the profession eventually. This study also reported that those wanting to leave the profession experienced more stress than those desiring to stay [11].

2.6 A note on 'Objective' and 'Subjective' measures

There has been much scepticism expressed, particularly in medical circles, about the use of subjective measures in the study of occupational stress. The criticism of these measures is essentially that they are less reliable and valid than so-called objective measures of physiology and physical health. This criticism is fundamentally misplaced, as it betrays a misunderstanding of the nature of the stress process, which is a psychosocial phenomenon. It therefore needs a characterisation of subjective issues if the stress process is to be adequately described. Furthermore, there is increasing evidence [26] that subjective measures of health and wellbeing provide good early signs of the development of clinical disease, particularly in occupational settings.

Of course, this is not to say that any subjective measure is either valid or reliable. Many of the studies reported in the literature use subjective measures, known validity and reliability, and these measures produce results which are of questionable significance. Among the most important criteria for the selection of the measures used in this survey has been their reliability and validity.

2.7 Major Sources of Nursing Stress at work

The stress literature groups occupational stressors into those arising from the nature of the work itself, those occurring outside of work and those associated with the individual. While there has been a large number of studies identifying the sources of stress among nurses, the majority of studies focus on sources of stress arising in the workplace, while only a handful address stressors associated with the individual and very few address the outside of work stressors (all three sources of stress have been examined in the present study). The following studies have been selected to give the reader an insight into some of the sources of stress explored in the literature.

2.7.1 Type of hospital unit

Much of the early research of stress amongst nurses focused on the experience of stress across hospital units. The hypothesis was that nurses working in ICU, CCU and terminally ill units would experience greater stress than nurses working in other units, on the basis that 'high-tech' nursing carried more intrinsic stressors than more traditional nursing areas. Findings vary and recent research has found no indication that the sources of stress arising from these units in relation to others is either greater or radically different [2,20,21,22].

A study of 122 nurses in an American hospital [20], found that nurses on five different units (medical, surgical, cardio-vascular, hospice and oncology) and at 3 levels of training (registered nurses, licensed practical nurses and nursing assistants) reported experiencing the most stress from the same three sources - work load, feeling inadequately prepared to meet the emotional demands of patients and their families and death and dying. In relation to the frequency of stress reported, nurses on the medical unit reported the highest levels of stress and those on the hospice unit reported lowest levels of stress. This suggests that structural characteristics of the units may be important in accounting for differences in levels of stress experienced. The hospice unit was a new unit composed of specially recruited staff who were trained to deal with dying patients and their families, whereas the medical unit was an older unit that included patients with a wide variety of medical conditions.
A British study [21], of stress among 65 nurses from four hospital environments (a coronary care unit, a renal unit, a general medical ward and an acute geriatric ward) found that similarities among nurses working in different environments were far more striking that variations among them. Overall, the profile over four different wards was almost identical, with death and dying and work overload reported as the major sources of stress for all nurses.

Another recent American study [22] comparing the frequency and sources of stress experienced by 138 nurses from the ICU, hospice and medical-surgical units of a hospital found that there were no significant differences in reported stress levels between nurses working on these units on most of the sources of stress. However, ICU and hospice nurses were significantly more stressed by death and dying than medical-surgical nurses while medical-surgical nurses experienced significantly more stress in relation to work overload/staffing than hospice and ICU nurses. The differences in relation to workload may be explained by the fact that ICU and hospice units generally have a higher nurse patient ratio than medical-surgical units. (This is an issue which should be, but rarely is, investigated in many stress studies).

Overall, findings from various studies [20,21,22] tend to support the view that because of the apparent pervasiveness of certain stressors, it is factors inherent in the nursing role which are important determinants of experience of stress. In addition, the most common sources of stress tend to be similar irrespective of the type of ward or nursing specialty.

2.7.2 Stress and nursing grade

Findings from the general occupational stress literature usually show marked grade differences in levels of stress, both in terms of its sources and outcomes. Despite the consistency of these findings, grade has been investigated relatively little in the nursing context.

Findings from a study of 236 UK nurses show that nursing auxiliaries reported far less stress than the other groups (groups - charge nurse/ward sister, staff nurse, senior and state enrolled nurse, and nursing auxiliary) and that charge nurses and ward sisters reported the highest levels of stress [23]. Another study found that registered nurses experienced more stress than licensed practical nurses [2]. Findings from the present study contradict this and show that students report significantly more stress than other groups of nurses in relation to almost all stressors.

2.7.3 Type of hospital

A study comparing the experience of stress between nurses from the public and private sector reported that both groups experienced high levels of stress arising from work overload and from death and dying [24]. Also, an examination of the sources of stress revealed that public nurses reported experiencing stress from work overload more frequently than private nurses and private nurses reported experiencing stress from uncertainty over treatment more frequently than public nurses. The generality of these findings is unclear, since the conditions of work in public and private hospitals vary considerably from country to country, and are determined more by the structure of health services than by the public-private distinction.

2.7.4 Workload

From the studies outlined above it is evident that within nursing one of the most prevalent stressors is workload. Work overload results, in part, from multiple demands imposed on the individual by medical and administrative staff. Studies have indicated that these dual lines of authority may also result in inter-role conflict and role ambiguity among nurses [1,20]. Work overload has also been shown to be a function of the nurse-patient ratio [24], nurses experiencing too little time in which to undertake their work and a function of the shortage and rationing of resources [25].

2.7.5 Role Conflict and Ambiguity

Role theory states that when the behaviour expected of an individual is inconsistent with her actual behaviour this results in ambiguity and conflict and the individual may experience stress, become dissatisfied, and perform less effectively.

Nurses combine many roles in their jobs. As well as their nursing and administrative roles they are also expected to act as counsellors to relatives and friends to patients. There is an inherent conflict between the goal-oriented demands of helping the patient to get well and providing emotional and therapeutic support which the patient and his family needs [20]. It is likely that this source of stress is more prevalent in hospitals where the nursing process is not applied, since the technique and procedure driven style of nursing encourages the compartmentalisation of patients in the nurses mind.

2.7.6 Personality characteristics of nurses

As previously mentioned, the individual’s perception of stress is central to the experience of stress. Personality, demographic and professional variables have been found to influence the experience of stress amongst nurses [2]. One study found that nurses who scored high on a trait anxiety measure experienced greater stress [20]. A study which compared the experience of stress between Type A and Type B nurses [27] found that Type A nurses reported significantly higher levels of stress caused by work overload, time pressures and role conflict, they also had higher cholesterol levels and systolic blood pressure readings. These findings are consistent with findings from the general occupational stress literature.

2.7.7 Shiftwork

Shiftwork has both positive and negative aspects, positive aspects may include, longer periods of time off at any one time, financial rewards, while negative aspects are those which interfere with the physiological, psychological, social and family life of an individual. (It should be noted in the case of Irish nurses, that the amounts of time off as a result of shifts are generally not great, particularly for those working 8 hour shifts, that the practice of split-shifts is still prevalent, and that shift premia paid hardly constitute a financial reward, particularly when compared to shift premia paid in industry).

In the nursing profession, shiftwork is essential to provide continuity of care to patients. Working shifts has been shown to have major health effects which, the dominant theory proposes [28], result from interference in the circadian rhythm and lead to physiological symptoms as fatigue, loss of appetite, sleep disturbance and gastro-intestinal disorders. The competing theory for these shift related effects (and there is little dispute about them), proposes that these deficits are largely due to the altered social circumstances in which shiftworkers find themselves [29].

A study of 1505 female hospital workers, (66% of whom were nurses) looking at stress at work found that by comparison with women on the morning shift, women on the night shift were at a higher risk of sleep impairment, fatigue and had higher GHQ scores [14].

Studies seem to suggest that nurses working on rotating shifts experience more stress than those working either day or night shifts. One such study looked at the influence of day, afternoon, night and rotating shift schedules on job performance and job related stress of nurses and found that overall job performance was highest for the nurses on the day shift, followed by the night, afternoon and rotating shifts. Rotating shift nurses experienced the most job related stress followed in turn by the afternoon, day and night shift nurses [36]. Another study which looked at nurses on nights only and those on rotating shifts found that nurses on night only shifts experienced more job satisfaction than those on rotation shifts [37]. The explanation for this perhaps counter-intuitive finding is likely to reside in the fact that most permanent night nurses choose to work this shift, unlike nurses on rotating shifts.
Findings from the general shiftwork literature of specific concern to nurses include:

- increased levels of gastrointestinal disorders, musculoskeletal disorders and sleep disruption [30]
- social and family difficulties due to sleep disruption, long commuting times and low levels of income [31,32]
- increases in error/accident rates [33,34,35]

These findings are consistent with the general shiftwork literature.

### 2.7.8 Organisational factors

Several important social-psychological factors characterise the influence process in multi-level human organisations, namely organisational climate, supervisory style and work group relations [38]. These factors are important because they set the context in which work is carried out in an organisation, and in particular set the management style and the organisational culture of an organisation. A good exposition of the kind of organisational factors which affect Irish nursing is to be found in Scanlan, (1991) [39].

Organisational climate refers to conditions created for work groups by others higher in the organisational hierarchy. These conditions provide the environment in which work groups operate. Organisational climate has been shown to directly affect staff role perceptions and job satisfaction [15,1], and has been demonstrated to be a major source of stress in its own right [42].

#### 2.7.9 Supervisory style

Research suggests that the behaviour of supervisors has important effects on work group relations as well as on subordinate motivation, satisfaction, and performance [15,38]. Findings show that staff are more satisfied and perform more effectively when administrative and supervisory practices result in an environment that permits an open expression of views and joint problem solving and in turn reduced role conflict ambiguity and stress increased job satisfaction and lower levels of absenteeism among the nursing staff.

Oaklander and Fleishman [40] in a study of 118 supervisors in three hospitals, on the effects of supervision on work group relations, found significantly less interpersonal conflict and hostility and allowed the subordinates greater participation in decision making and encouraged two-way communication.

### 2.8 Outcomes of Nursing Stress

The purpose of this section is to report briefly on studies which have explored the manifestations of stress amongst nurses. It is important, however, to note that the distinction between sources of stress and effects of stress may often be unclear and that any given stressor does not have a specific or characteristic outcome.

As described in Chapter 1, the consequences of negative stress can be examined in terms of the effects they have on the individual, the family and the social group and in terms of the effects it has on the organisation. Studies of nursing stress have tended to focus mainly on the effects stress has on the individual and on the organisation.

Findings from empirical research indicates that the long-term effects of occupational stress can be measured in psychological, physical and behavioural terms. However, the studies reported in this section will show that these categories are not mutually exclusive. This may be attributed to the complexity of the nature of the stress process.

#### 2.8.1 Psychological outcomes

Psychological manifestations of stress are amongst the most widely reported effects of stress on nurses. There is substantial general evidence that high levels of occupational stress are strongly associated with low levels of self-reported health and well-being [8,20,41]. The experience of occupational stress among nurses has been found to be positively correlated with levels of depression [41] anxiety [20] and tension and tiredness [43].

The GHQ measures health status and scores of 3 or more can be regarded as an indicator of possible health problems. Many studies of occupational stress (including the present one) use this measure. Tyler et al [24] found that one third of both public and private sector nurses experienced scores of 3 or more on the GHQ and that work load was the best independent predictor of health and well-being status. They suggest based on this evidence that it would appear that the stressors experienced by nurses take their toll in terms of health and wellbeing. Other studies using the GHQ have substantiated these findings including a recent study conducted in Northern Ireland [25], which found 27% of nurses with scores of 3 or more. In a study of hospital workers in France, of which 43% were nurses, 28% scored 3 or more on the GHQ [13].

These findings can be compared to the Irish findings of the ESRI [44], Wynne [45] and Ronayne et al [46], all of which demonstrate that nurses are among the occupational groups with highest levels of impaired psychological wellbeing.

#### 2.8.2 Physiological outcomes

As well as poor mental health and psychosomatic illnesses, occupational stress has been linked with numerous physiological symptoms amongst the most common of these are coronary heart disease, hypertension, increased cholesterol levels [47]. Physiological measures are known to be easily influenced by factors other than stress or by differences in the way which individuals react to stress and this should be kept in mind when interpreting findings using these measures.

Data on mortality amongst nurses corroborates the effects of these physiological outcomes. An OPCS report (1978) [42] revealed that at 45 nurses have a lower life expectancy than comparable female occupations i.e. teachers, social workers and secretaries (their life expectancy is no more than 26.9 years - only one year more than miners working underground). Nurses are also listed 8th on the list of occupations with the highest morbidity rates. (Morton-Cooper 1984).

It is also worth noting that certain physiological health effects are particularly prevalent amongst shiftworkers as a result of interference in the circadian rhythm. These can lead to such physiological symptoms as fatigue, loss of appetite, sleep disturbance, musculoskeletal and psychosomatic symptoms, and gastro-intestinal disorders [37].

#### 2.8.3 Behavioural outcomes

Behavioural manifestations of occupational stress can result in a deterioration in work performance and a deterioration in personal relationships. Widely attributed consequences of nurse stress are absenteeism, turnover, and reduced job satisfaction. These may arise for a number of reasons and can reflect inter alia such factors as physical and psychological health problems due to either work-related stress, outside-of-work stress or an interaction between these.

Labour turnover represents one of the major problems for nursing and health care in terms of cost, the ability to care for patients, quality of care given, and disruption of organisational performance [20]. It is evident that nursing turnover rates are increasing world-wide [16,17]. Anecdotal evidence would suggest that this is also the case in Ireland, and the present study shed some further light on this issue.
Studies have found that nurses who experienced high levels of stress were less satisfied with their work, with their level of supervision and also evidenced the highest turnover rates [11,20,25]. However, whether these nurses left the profession entirely or left to go to other areas of nursing or other hospitals is not clearly established in these studies.

Amongst the reasons given for nursing staff turnover are inadequate salary, lack of administrative support, lack of opportunities for continuing education, lack of availability of child care facilities, poor provisions for in-service education and poor interactions with physicians [48].

Suicides are also considered behavioural outcomes of health, social and economic difficulties. Findings [42] have shown that rates of suicide and suicide related causes of death were unusually high amongst nurses (it should be taken into account however, that there is no direct evidence that stress is the cause). An American study [49] which compared the mortality pattern of registered nurses to a control group of female professionals from 1963 to 1977 found 41 suicide deaths amongst the nurses compared to 27 from the control group.

2.9 Approaches to reducing stress

In studies of occupational stress considerable attention has been given to identifying the causes and consequences of stress, whereas it is only recently, that studies have begun to focus on and identify the coping strategies nurses use and the importance of developing techniques for reducing stress levels.

Much of the literature focuses on individual coping strategies. Different studies tend to subscribe to a large number of different classifications of strategies. Broadly speaking, strategies fall into two categories. The first is action oriented and involves positively dealing with the sources of stress, for example, setting priorities and dealing with important tasks first. The second strategy is to use palliative techniques which essentially accept the source of stress but attempt to fight the emotional consequences of stress, whereas it is only recently, that studies have begun to focus on and identify the coping strategies nurses use and the importance of developing techniques for reducing stress levels.

Many studies of nurses and indeed other occupational groups classify stress management techniques aimed at the individual, for example, assertiveness, training, developing coping strategies, as organisational strategies. It is becoming widely recognised that these are individual strategies and that organisational strategies refer to those strategies which focus on the hospital or work environment as an organisation, for example, strategies to improve management, work organisation, communication and to provide formal support systems for nurses.

Studies which actually consider the nurses' experience of stress in an organisational context are difficult to find. There a few studies [61,62,63] which have recommended and indeed described organisational actions to reduce stress but unfortunately studies which report the implementation of these actions are rare.

The following section outlines the types of coping strategies nurses use, the interpersonal strategies and organisational intervention programmes.

2.9.1 Personal coping strategies

Studies in this area have tried to identify the strategies nurses use, whether different groups of nurses use different strategies and to assess the relationship between stress and coping style.

One study shows that levels of stress and burnout are related to the types of coping strategies used, where nurses with lower burnout scores used coping strategies of planned problem solving, positive reappraisal and seeking social support whereas nurses with higher burnout scores used strategies of escape, avoidance and confronting [50].

Studies [43,51] which have identified and compared the coping strategies of groups of nurses with different levels of nursing experience and from a variety of ward specialisms have found that more experienced staff showed greater use of problem focused ways of coping whilst students used more emotion-focused strategies to deal with stressful situations. This finding is supported in the present study. In general, studies have attributed differences in coping style to number of years nursing experience, training, levels of responsibility and discretion.

2.9.2 Interpersonal coping strategies

Effective social support systems are consistently recommended as a means of coping with occupational stress. The theory is that social support is expected to moderate the relationship between stress and strain so that stressors are less strongly related to strains in the presence of strong social support than they are under conditions of less social support. Social support from persons both in and outside of the work environment are said to moderate, or even prevent the effects of stress from emerging. It should be borne in mind, that social support does not necessarily lower the level of stress experienced by the worker, but instead aids the employee in coping with stressful aspects of the job.

Findings from research of the effects of social support upon burnout amongst nurses is inconsistent. While some studies have found that the negative effects of a work environment were buffered by high levels of supervisor support [52], and that as social support increased burnout decreased [53,54], others have found quite the opposite, that social support strengthened the positive relationship between stressors and strains [55].

2.9.3 Organisational strategies

Traditionally, nurses and those who work with nurses have treated nursing stress as an individual problem and alleviation of stress as a personal responsibility. This has meant that organisational interventions have been geared towards training the individual to cope mainly through programmes such as stress inoculation, relaxation therapy, assertiveness training and peer and supervisor support programmes [51,54,56,58]. Stress inoculation programmes, for example, aim to give participants preparatory information to enable them to increase their tolerance for subsequent threatening events through a three staged approach. In stage one participants identify situations they find stressful, in stage two appropriate coping skills are discussed and in stage three newly learned coping skills are applied to hypothetical and actual stressful situations through role play techniques.

Many studies also point to the success of staff support programmes. While there is widespread confirmation of the positive effects of these programmes research shows that these generally work best if: initiated in response to need felt by nurses; the group facilitator is felt by nurses to be helpful; the group is highly structured and does not allow discharge of negative feelings; if problems are interpersonal rather than environment or administrative [59].

The programmes outlined above address the outcomes of stress and not the causes per se. Programmes like those which focus on the individual assuming responsibility and target intervention strategies at individuals rather than the organisations often ignore the relative powerlessness of individuals within large organisations and allow maladaptive organisational practices to remain unchallenged (Handy, 1986) [60]. There is also evidence to suggest that when these programmes are applied in isolation, the effectiveness in terms of symptom reduction is less than what might be
expected [57]. However, when demanding situations clearly result from difficult bureaucratic rules, regulations or procedures, then it is as Handy suggests, clearly preferable to tackle these rather than to divert attention away from them by placing the onus for change on the individual.

When considering the nature of possible organisational intervention strategies, nursing and hospital administrators should be aware of those aspects of the work environment which give rise to the perception of stress. There are factors inherent in the hospital organisation which predispose the staff to stress and burnout—factors such as heavy workloads, large numbers of new graduates or students, rotation of shifts and working weekends [43]. Within the literature there were few studies which identified organisational burnout programs [61,62,63]. While they proposed strategies such as team building, communication, appraisal and career development as organisational interventions, they cited few instances where these were implemented.

Programmes which want to be realistic about organisational strategies to overcome stress should look at such structural factors as adequate staffing, flexible scheduling, increased participation in decision making, adequate compensation, providing continuing education programmes, providing career advancement, acceptable roster systems, shift design, as well as providing the absolutely necessary training in interpersonal skills, giving recognition and arranging formal and informal support groups [64,65].

2.10 Summary

Much of the research on stress in nursing is only of moderate quality, and is hampered by adopting a narrow focus, using limited measures and proposing restricted models of stress. Nevertheless the concordance among studies from many parts of the world with regard to the principal sources of stress is impressive, these include for example workload, death and dying, lack of support and poor working conditions. The outcomes of stress are also generally recognised to include burnout, psychological distress, low job satisfaction and intentions to quit.

The approaches to managing stress described in the literature have generally been limited, and focus on altering the individuals methods of managing the effects of stress.

Chapter 3. Introduction to the survey

This section outlines the reasons why the study was commissioned, the methods used in the survey, the measures used in the questionnaire and the analysis strategy used to evaluate the data from the survey.

3.1 Background to the survey

The study of stress among nurses was undertaken against the background of a generally prevailing perception that nursing carried a considerable stressful load. Anecdotal evidence suggested that the outcomes of stress were being experienced by nurses with increasing frequency. An obvious sign of this concerned the increasing number of nurses leaving the profession often apparently due to stress related illnesses. Furthermore there was a common perception both by nurses and the media that nursing was a stressful profession.

There were also more general reasons to suppose that the level of stress in nursing was high. Throughout the 1980s a number of structural factors had impacted on the nursing profession, which from a theoretical standpoint, would be expected to lead to increases in stress.

At a global level, the 1980's saw financial constraints placed on health services world-wide. In particular, these have had the effect of:

- increasing the ratio of patients to nurses;
- increasing patient turnover due to shorter hospital stays;
- cutting resources; and
- introducing part-time and student staff;

all of which have added to and increased the burden on the service and on those who provide the service. Alongside these problems are those of rapid technological change and increasing organisational complexity.

It was against this background that the Irish Nurses Organisation proposed a survey of stress among their members. This survey has four principal aims:

- Describing the principal sources of stress among nurses;
- Outlining the major coping strategies of nurses;
- Describing the principal effects of stress among nurses; and
- Proposing courses of action to manage stress among nurses.

The methods used to meet these aims are the subject matter of the remainder of this Chapter.

The survey has coincided with the European Year of Safety, Hygiene and Health Protection at Work, of which one of the key areas for activity is Wellbeing at Work. The WRC and INO
applied for financial support for the survey, and was successful in this aim. The survey therefore stands as one of the major Irish contributions to European Year activities in this area.

3.2 Methods used in the survey

This section outlines the methods used in the survey, including sampling, the pilot study, and the various questionnaire tailoring activities.

The first action in the project was to set up a project team which was comprised of INO members and the WRC team (see Acknowledgements section at the front of this report for details of membership). This team had responsibility for overseeing the process of conducting the survey, contributing to questionnaire development, supporting the return of questionnaires, planning publicity and commenting on drafts of this report. They were intimately involved with all aspects of running the survey, and provided large amounts of contextual information and interpretation of results which was of major benefit to enriching the final report.

3.2.1 The pilot survey

Typically in large scale survey procedures it is normal to use a pilot survey to assess the acceptability of the questionnaire to potential survey participants, to ensure that the questionnaire is gathering the information it is intended to gather and to provide input for modification of the survey questionnaire. This procedure was followed in the present survey. Designing the pilot questionnaire involved two processes.

The first process involved initial questionnaire design in which the WRC proposed a core questionnaire which examined generic sources of stress, specific sources of stress related to nursing, coping, health related behaviours, and the outcomes of stress.

The second process involved a series of discussions with the Stress Committee of the INO, which was made up of nurses representative of different grades and areas of nursing, in order to assess issues relating to stress as perceived by nurses. The information collected during this process provided valuable input into both the contextual part of the questionnaire as well as into the part specifically relating to the nurses experience of stress.

The pilot questionnaire was issued to 59 nurses from the INO. Approximately 80 per cent of the pilot sample replied to the questionnaire. Modifications were made to reduce its length; improvements were made to the questionnaire layout; to the instructions which accompanied questions, and a limited number of alterations were made.

On the basis of the pilot survey, the questionnaire was redesigned. This stress questionnaire can be divided into two parts. One part examines the issues concerned in the stress process per se. The other part concerns the provision of contextual information about the nurses and the workplaces in which they work. It is used to assess which factors contribute to nurse stress.

<table>
<thead>
<tr>
<th>Section</th>
<th>n in database</th>
<th>n in sample</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>4412</td>
<td>441</td>
<td>10</td>
</tr>
<tr>
<td>Midwifery</td>
<td>767</td>
<td>77</td>
<td>10</td>
</tr>
<tr>
<td>Theatre</td>
<td>416</td>
<td>42</td>
<td>10</td>
</tr>
<tr>
<td>Mental handicap</td>
<td>439</td>
<td>44</td>
<td>10</td>
</tr>
<tr>
<td>Paediatric</td>
<td>337</td>
<td>34</td>
<td>10</td>
</tr>
<tr>
<td>Psychiatric</td>
<td>112</td>
<td>44</td>
<td>40</td>
</tr>
<tr>
<td>Army</td>
<td>47</td>
<td>47</td>
<td>100</td>
</tr>
<tr>
<td>PHN</td>
<td>922</td>
<td>92</td>
<td>10</td>
</tr>
<tr>
<td>Supt and Senior PHN</td>
<td>54</td>
<td>40</td>
<td>74</td>
</tr>
<tr>
<td>Occupational health</td>
<td>72</td>
<td>36</td>
<td>50</td>
</tr>
<tr>
<td>Emergency and general</td>
<td>226</td>
<td>45</td>
<td>20</td>
</tr>
<tr>
<td>Associate</td>
<td>13</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Retired associate</td>
<td>102</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Student</td>
<td>2476</td>
<td>248</td>
<td>10</td>
</tr>
<tr>
<td>Welfare homes</td>
<td>64</td>
<td>32</td>
<td>50</td>
</tr>
<tr>
<td>CSSD/Staff</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>INO elderly</td>
<td>1549</td>
<td>155</td>
<td>10</td>
</tr>
<tr>
<td>Nursing home</td>
<td>44</td>
<td>36</td>
<td>80</td>
</tr>
<tr>
<td>GP practice</td>
<td>103</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Hospice</td>
<td>35</td>
<td>35</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3.1 The composition of the sample.

3.2.2 The samples drawn for the survey

In view of the large numbers of nurses available to respond to the questionnaire (12178 INO members on the membership database), it was necessary to select a sample of nurses which would be representative of the membership of the union. In drawing this sample the assumption was made that a 50% response rate would be achieved, and the target was to achieve approximately 800 responses from the sample.

A 10% random, stratified sample frame was used to generate the sample. The stratification variables were Section (the area of the INO membership database in which the nurse was working, e.g. general, midwifery, occupational health), and grade. Some over-sampling took place in relation to the smaller sections as the target was to ensure that a minimum of 30-40 respondents replied from each section. When the sample had been stratified by section, checks were made to ensure that sufficient numbers were present in each of the major grades. The only grades where over-sampling took place were amongst tutors and matrons. Table 3.1 below depicts the composition of the sample in terms of section.
encouraging recipients to respond. In addition, the opportunity was taken at the INO Annual Conference and other gatherings of nurses to encourage response.

Assuring confidentiality was viewed as being an important issue with regard to stimulating response rates given the sensitive nature of some of the questions contained in the questionnaire. In order to ensure confidentiality, each recipient was issued with a randomly assigned number and questionnaires were mailed directly back to the WRC. Reminder letters were issued to non-respondents on an average of three weeks following the initial issue of the questionnaire. In addition, INO representatives in the major workplaces were encouraged to support returns from nurses included in the sample.

The questionnaires were issued in July 1992, The closing date for receipt of completed questionnaires was early November. In practice, however, questionnaires received from any nurses which arrived at the WRC prior to early December were included in the survey analysis.

3.2.4 Response Rates

In all, 777 questionnaires were returned by the closing date from an initial sample of 1662, giving an apparent response rate of 46.8%. However, 6 nurses refused to participate in the survey, while 6 respondents did not complete the questionnaire fully enough to be included in the data analysis. Two other factors should be taken into account when estimating the true response rate - the fact that there is a high turnover of nurses within and out of the profession, (it is estimated in Chapter 4 that the turnover rate runs at approximately 10%), and the fact that the membership database always has a time lag between changes of address and updating of the database - this could account for up to 5% of database entries being out of date. If the sample size is altered for these factors, the response rate then becomes 777 divided by 1413 which is 54.6%.

The overall response rate represents a high response for a postal questionnaire survey, particularly in view of the comprehensive nature of the questionnaire (it was estimated to take up to one hour to complete) and the sensitive nature of some of the issues examined in the questionnaire. This level of response should be compared to response rates which the INO typically achieve when seeking postal returns - these have been no higher than 20%.

Non-responses may have occurred for a number of reasons. These include errors in the database from which the sample was drawn, the sensitive nature of some of the questions and the length of the questionnaire. Of particular relevance here is the accuracy of the database from which the sample was drawn, since there was some evidence from returned, but non-completed questionnaires that some of the respondents either no longer functioned as nurses, or had moved to other hospitals or workplaces.

An analysis was carried out of the characteristics of responders and non-responders in order to see if there were systematic differences between these groups in terms of the workplace (mostly hospitals) they worked in or grade. There was a slightly higher base line response from those working in larger workplaces of 50% compared to a response rate of 45.1% from smaller workplaces. This probably reflects the greater numbers of INO reps who helped ensure the return of questionnaires in the bigger workplaces. The results in relation to grade (for the major grades) are outlined in Figure 3.1 below.

3.3. The measures used in the survey

As stated above the measures used in the survey comprise a set of standard occupational stress measures which have been augmented by a range of questions which contextualise the questionnaire, and make its contents more relevant to the concerns of the INO. The questionnaire (which is contained in Appendix 1 to this report) is made up of a number of dimensions which are outlined in Table 3.2.

Respondent demography refers to such variables as the age, gender, marital status, family background, number of years nursing, job tenure, the registrations held by the nurse, the area in which she worked and the number of hours spent on different aspects of nurses job.

Workplace demography refers to variables which characterise the nurses’ workplace, and varied depending on the area in which the nurse worked. In the survey separate sections were included which examined the work environment of hospital nurses, public health nurses and nurse tutors. Variables differed in each section, in the case of hospital based nurses these included such variables as: size of the hospital, whether or not it was a training hospital, the level of turnover of nurses and of patients, the number of beds on the ward. In the case of public health nurses variables included, number of patients, patient groups, public health nurse turnover, and the section on nurse tutors included variables on number of students, other duties besides teaching, and qualifications of tutors.

Both respondent demography and workplace demography variables are potentially important predictors of levels of stress and its outcomes. The effects of these variables are outlined in Chapter 7.
Sources of stress at work were measured using a standard questionnaire which assessed the generic sources of occupational stress, a nursing specific questionnaire which assessed the sources of stress particular to nurses and from three open ended questions which asked respondents to list what they considered to be the three major sources of stress in their job.

Outside of work stress refers to life events that carry a stressful potential. Such events range from quite major events as births, deaths and marriages to quite minor events such as borrowing money and separation from partner due to work or travel reasons. The important point about these events is that they all must be coped with as they involve change for the individual.

Social support refers to the levels and adequacy of support the individual receives from those around them both inside and outside of work. Social support has been found to be a major moderator of stress and constitutes an important coping mechanism.

Health and coping behaviours refer to a range of behaviour which may be used in the process of coping with stress. They may also be viewed as outcomes of stress. The dimensions in this category in Table 3.2 are self-explanatory with the exception of Type A behaviour, which refers to a personal coping style characterised by competitiveness, aggression and job involvement. People who can be categorised as Type A are more likely to suffer from the effects of stress.

The outcomes of stress refer to a range of physical and psychological indicators of wellbeing. While all of these dimensions are related to stress, many of them are also influenced by other factors. They represent an assessment of the physical and psychological status of the individual, and the analysis of the results will tell to what extent the individuals health and wellbeing status are related to stress.

Table 3.2. The dimensions of the questionnaires

<table>
<thead>
<tr>
<th>Background Information</th>
<th>Sources of Stress at work</th>
<th>Outside of work stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent demography</td>
<td>The nature of the job</td>
<td>Number of life events</td>
</tr>
<tr>
<td>Workplace demography</td>
<td>Role stress</td>
<td></td>
</tr>
<tr>
<td>Outcomes of stress</td>
<td>Relationships at work</td>
<td>Social support</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>Career development issues</td>
<td>Sources of support</td>
</tr>
<tr>
<td>Digestive symptoms</td>
<td>Organisational structure</td>
<td>Adequacy of support</td>
</tr>
<tr>
<td>Musculoskeletal symptoms</td>
<td>and climate</td>
<td></td>
</tr>
<tr>
<td>Psychosomatic symptoms</td>
<td>Home-work interface</td>
<td>Health/coping behaviour</td>
</tr>
<tr>
<td>Total symptomatology</td>
<td>Workload</td>
<td>Smoking</td>
</tr>
<tr>
<td>Serious illness</td>
<td>Death and dying</td>
<td>Alcohol consumption</td>
</tr>
<tr>
<td>Cognitive anxiety</td>
<td>Lack of staff support</td>
<td>Caffeine consumption</td>
</tr>
<tr>
<td>Physical anxiety</td>
<td>Uncertainty concerning</td>
<td>Exercise</td>
</tr>
<tr>
<td>Mental wellbeing</td>
<td>treatment of patients</td>
<td>Sleep</td>
</tr>
<tr>
<td></td>
<td>Conflict with nurses</td>
<td>Type A behaviour</td>
</tr>
<tr>
<td></td>
<td>Inadequate preparation</td>
<td>Coping style</td>
</tr>
</tbody>
</table>

These dimensions of the questionnaire, which are derived from a range of standard questionnaires, were augmented by a range of questions which provide contextual information and which help in the interpretation of results from the analysis. These additional questions will be referred to, where appropriate, during Chapters 4 and 5.

3.4 The analysis strategy

The strategy for analysing the data from the survey comprises two main analyses. The first of these, known as descriptive analysis, outlines the findings concerning personal and workplace demography (Chapter 4), and the findings concerning levels of stress, health and coping behaviour and the outcomes of stress which are reported in Chapter 5. This analysis effectively provides a snapshot of the state of these variables among nurses at the time of the study.

The second analysis, known as inferential analysis, attempts to explain why various outcomes were seen. It was carried out at two levels, the first broadly involves hypothesis testing, and profiles the highly stressed nurses in terms of the range of personal and workplace demographic variables measured in the study (chapter 6) and the second aims to assess which of a range of variables (demographic, sources of stress, coping styles, support) best predict health and wellbeing status amongst the nurses in the sample (chapter 7). This kind of analysis forms the basis for the recommendations which can be made to address the stress issues in teaching (Chapter 9). It enables measures to be targeted at high risk groups and the establishment of preventive measures.

Not all of the data collected during the course of the survey are reported on in this report. Firstly, only statistically significant findings are reported. Secondly, a specific approach has been taken to the analysis which is based on the theories of occupational stress. Other questions may be asked of the data, and these could form the basis of a separate report. In essence, the data which have been collected should be viewed as a resource which can be returned to.

When interpreting the results from surveys such as these, one should be aware of the strengths and weaknesses of the survey approach. They are good at documenting the experience of stress, through taking a snapshot of a representative sample of nurses at a given point in time. This allows statements to be made with confidence regarding the prevalence of stress at that point in time.

They are also good at identifying factors which are associated with the experience of stress - statements can be made regarding stress levels in different groups of nurses. Statements can also be made about the factors which are most associated with stress, all other factors being controlled for.

However, it is difficult to make statements regarding the process of stress, and the mechanisms whereby stress related outcomes are produced solely on the basis of the data collected from the survey. In an ideal world, longitudinal surveying (and other methods) would be used to make completely confident statements on causation. However, one can use knowledge gained elsewhere to make informed statements about likely causation, and this is what has been done in reporting the results from the present survey.
Chapter 4. Demographics of the sample

This chapter describes the principal features of the sample in terms of nurse demography, working conditions, shift work issues, occupational health issues, and hospital demography. The principal variables of interest here concern the personal circumstances of the nurse and the kind of places they work in.

4.1 Introduction

In this chapter the characteristics of the nurses who made up the sample and the kinds of workplaces they work in are described. The information sought from the sample on these issues was wide-ranging, and was informed by two purposes. Firstly, it is of importance to know about personal demography and workplace demography for purposes of relating these issues to the experience of stress (statistical analyses relating these areas are reported on in Chapters 6 and 7). Secondly, these data are of interest in their own right - in fact many of the questions asked in these areas were prompted by the INO stress committee.

4.2 Personal demography

The age distribution of the sample as shown below in Figure 4.1 suggests a relatively "older" sample population with only 23.8% under 30 years of age and 39.7% over 40. This represents an age profile of a population older than might have been expected. The sex of the respondents, 97.3% female and 2.7% male, reflects the perception of nursing as a predominantly female occupation. With almost 50% of the sample having no children it is interesting to contrast this with the relative age of the sample. Of those with children the small family size reported reflects the increasing tendency in the general population towards having fewer children. 10% of the sample reported having other dependants.

![Figure 4.1 Distribution of age among the sample](image)

Analysis of the data relating to years of nursing experience reveals a sample with considerable experience, only 20.1% of the sample having less than 6 years experience and 65% having more...
than 10. Figure 4.2 below, outlines the percentage of the sample holding different nursing registrations. As might be expected, the majority of the sample held at least two nursing registrations, the most common pairing being general and midwifery.

When the relative age and experience of the sample is taken into account the fact that almost 60% of nurses are in their present position for less than 5 years reflects a volatile labour market with considerable movement either between or within workplaces.

Figure 4.2 Registrations held by the sample

The distribution of the sample by grade reveals a wide range of work areas and job roles captured by the survey, the largest group being staff nurses at 52.2%. Students, at 13.1%, represented a sizeable portion of those who responded as did PHNs who made up 9.4% of the sample. Tutor grades were represented by 3% of the sample.

The table below, table 4.1, illustrates the wide range of workplaces investigated by the survey by detailing the percentage of the sample reporting working in each area. Though these figures indicate substantial levels of hospital based working, there is a wide range of nurses working in non-general hospital settings and outside of hospitals.

<table>
<thead>
<tr>
<th>Area</th>
<th>Percent</th>
<th>Area</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical</td>
<td>10.0</td>
<td>Surgical</td>
<td>8.3</td>
</tr>
<tr>
<td>Maternity</td>
<td>6.6</td>
<td>Mental Health</td>
<td>1.7</td>
</tr>
<tr>
<td>Paediatric</td>
<td>3.6</td>
<td>Special Care Unit</td>
<td>4.5</td>
</tr>
<tr>
<td>Public Health Nurse</td>
<td>9.0</td>
<td>Geriatric</td>
<td>16.0</td>
</tr>
<tr>
<td>Psychiatric Nurse</td>
<td>1.2</td>
<td>Accident and Emergency</td>
<td>6.6</td>
</tr>
<tr>
<td>Theatre</td>
<td>5.9</td>
<td>Other</td>
<td>26.6</td>
</tr>
</tbody>
</table>

Table 4.1 Areas worked in by the sample

60% of the sample reported being in continuous employment since qualifying. When those who had not been in continuous employment were asked why they had taken a break the predominant reason concerned family reasons, though 41.9% said that their reasons were either "to go abroad" or "due to unemployment". These figures highlight the high labour turnover within nursing, while the figures relating to leaving the country or the profession point to a situation whereby nursing jobs are hard to acquire. Figure 4.3 below outlines these results in percentages.

4.3 Working Conditions

The working week

Although the mean working week for the sample was 38.5 hours, a sizeable portion, 12.5%, work more than an average of 40 hours per week. 62.7% officially work a 39 hour week and 37.3% a 40 hour week. Those who officially worked a 39 hour week were asked how they get the extra hour back when they work on a forty hour week basis. The results obtained are outlined in figure 4.4, below. The fact that 17% of respondents do not seem to get their extra hour back at all together with other results presented below relating to going off duty late suggest, at minimum, a workforce under pressure, and also that a sizeable proportion of nurses do not obtain their contractual rights in this regard.
**Job tenure**

66% of the sample held full-time permanent contracts, with a further 3.5% holding part-time permanent contracts. 12.5% held full-time temporary contracts and 4.2% held part-time temporary contracts. Of the remainder of the sample, 8% were job-sharing, 0.4% were agency nurses, while the remaining 5.4% had 'other' types of job tenure.

Figure 4.5 below shows the length of contracts held by the sample. While almost 70% of the sample have permanent contracts it should be noted that such a large percentage reported having no contract at all (10.1). The 'other' category here was made up largely of agency nurses, though some agency nurses reported weekly or monthly contracts. In general, with the exception of those on permanent contracts, there seemed to be some confusion in the minds of the sample regarding the nature (if any) of the contracts they were employed under.

**Time off and breaks**

In relation to meal breaks 49.3% of respondents who reported not taking their meal breaks at appointed times either sometimes or never and over 21% reported rarely or never taking meal breaks off the ward. These findings suggest a workforce under a great deal of pressure.

While 86.4% reported that they can request annual leave, the high proportion of 50.8% said that they could not obtain leave at the time requested by themselves.

Figure 4.6 below illustrates the percentage of respondents who had experienced various difficulties associated with their shifts. The percentages refer to those who responded "occasionally" and "frequently". As many as 44.9% of nurses reported frequently going off duty late, and ninety percent of nurses reported going off duty late either occasionally or frequently, this finding suggests that there are serious scheduling difficulties which may in part be due to the lack of staff reported by the sample.

**Job sharing**

When asked about the possibility of job-sharing 39% responded that this was possible in their workplace. Of the remainder, 34.6% reported that either to "some" or a "great extent" the lack of such a possibility had impacted on their family lives. A lack of easy access to child care arrangements for 43.9% of those with children (50.4% of the sample) may represent an important contributing factor to non-work related stress experienced by the sample. Those respondents who reported "to some extent" or "to a great extent" represent 55.8% of those to whom the question was applicable. (These findings go some way to explaining the importance of stress from the home-work interface in generating stress related outcomes - see Chapter 7).

**Non-Nursing tasks**

The amount of time spent on nursing versus non-nursing tasks is related to a number of issues to be discussed later and is of particular significance in relation to the disparity between what nurses see as their role and their ability to fulfil that role. It also has considerable importance in devising measures to combat work overload. The findings indicated that a mean of 4.7 hours was spent on nursing tasks by hospital based, clinical (as opposed to administrative) nurses, and that only 22.4% of these spend more than 6 hours on nursing tasks. These findings strongly indicate that, for this sample at least, a considerable amount of time, on average almost half the working day, is spent on non-nursing tasks.

The type of non-nursing tasks performed and the average amount of time spent on them per shift is presented in Figure 4.7 below. The findings indicate that nurses undertake considerable amounts of clerical work, at least part of which may be a legitimate part of the nursing role, though it should be noted that clerical support may be completely absent in many settings. In relation to the other categories of non-nursing tasks, all hospitals would provide staff dedicated to domestic, portering and catering duties. However, it seems clear from these findings, that there are considerable problems within hospitals in providing sufficient services in these areas, with nurses making up the shortfall in these services. The obvious question must be asked: is this an effective use of a highly trained resource?
Figure 4.7 Average amount of time per shift spent on non-nursing tasks

Professionalisation in Nursing

A major concern of the INO stress committee related to the extent to which nursing is regarded as a profession or a vocation - in essence the issue of the professionalisation of nursing. While there is a literature regarding the features of professions (e.g. regulatory bodies, high level training, areas of discretion etc.), the literature does not provide a convenient measure of these attributes. Accordingly, a set of measures was developed which allowed nurses to contrast their actual experience of the professional role (if, in fact, it exists) with what they regarded as being ideal. Though the dimensions selected for assessment are not definitive of a profession, and the method used (the gathering of opinions) does not allow conclusive answers to the issues concerning professionalisation, the data offer powerful evidence of the disparity between what the sample regarded as being important and their experience of their working lives.

The sample were asked to respond on a 5 point scale the extent to which they agreed with seven nursing activities being actually a part of nursing and the extent to which they should be. Examination of Figure 4.8 below reveals serious disparities between what nurses perceive their role should involve and what it actually does involve. For example, 40.8% reported that the nursing role at present involves nursing care completely, whereas 69% said it should. In other words, nurses perceive their role as carers as involving aspects which are being neglected. Large disparities were seen in relation to each of the other aspects, with particularly large discrepancies between the ideal and the actual in relation to management skills, communication skills, counselling skills and teaching.

These findings indicate a high level of dissatisfaction with the current operationalisation of the nursing role. The sample reported a considerable deficit regarding important dimensions of professionalisation in their actual working lives. The findings concerning the extent of non-nursing tasks also have relevance for the extent to which nursing is regarded as a profession or a vocation. Though the findings cannot be conclusive, the balance of evidence would suggest that while professional aspirations are high, in practice nurses are employed to and actually work at non-professional jobs.

4.4 Shiftwork

Type of shift pattern

The high percentage of the sample working shifts (66.9) reflects the 24 hour nature of hospital-based nursing and is likely to be a major factor in determining the health and wellbeing of the sample. The five most common shifts worked by the shiftworkers in the sample account for 75.7% of the shift systems worked. All are rotating systems (usually associated with negative impacts on health and wellbeing), with the majority involving night work, either on a blocked basis (34%) or on an more regular basis (26%).
Day shifts

Data were also obtained on the length of day shifts and on the average number of shifts per week in an attempt to further characterise the shift systems worked, and this is presented in Table 4.2 below. The data on longest shifts indicates the continuing prevalence of 12 hour (or often longer) shifts. As far back as 1979, Henry and McHale provided data on shift lengths for nurses in Irish hospitals (though from a small sample), which indicated that shift schedules were particularly severe, and the current data indicates little change in this judgement.

The data on shortest day shifts is also interesting, since the high proportion of the sample reporting shift lengths of less than 8 hours (74.9%) indicates that there are serious imbalances in shift length, and also that the practice of split-shift working is still prevalent. This interpretation is supported by the data on the average number of shifts per week, with a mean of 4.6 being worked (this is less than five because of the presence of some part-time nurses in this group), but with as many as 18.4% reporting working more than five shifts on average. This also indicates the presence of split shifts and of either systematic overtime or double-jobbing or both. In fact, in response to the question, ‘do you work split shifts’, 24% of the shiftworking groups indicated that they do. This is a very high proportion, and indicates the need (along with the findings on day and night shifts - see below) for a considerable rethink of shift schedule design.

<table>
<thead>
<tr>
<th>Longest day shift</th>
<th>Shortest day shift</th>
<th>Average shifts per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours</td>
<td>Percent</td>
<td>Hours</td>
</tr>
<tr>
<td>&lt;8</td>
<td>2.0</td>
<td>&lt;4</td>
</tr>
<tr>
<td>8</td>
<td>20.7</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>9.9</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>2.4</td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>8.5</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>47.1</td>
<td>8</td>
</tr>
<tr>
<td>&gt;12</td>
<td>9.3</td>
<td>&gt;8</td>
</tr>
<tr>
<td>Mean</td>
<td>10.8 hours</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean</td>
</tr>
</tbody>
</table>

Table 4.2 Length of day shifts and number of shifts per week

Night shifts

The data concerning night shifts revealed cause for concern with regard to the number, duration and number of consecutive night shifts from the point of view of health and wellbeing (see Table 4.3 below). While just over a quarter of the shiftworking nurses did not work nights, the kind of night shift schedules worked by the remainder reinforces the judgement of Henry and McHale that nurses work some of the most severe shift schedules. The number of nights worked by the majority of shiftworkers in the past six months indicates that 46.6% worked between 1 and 30 nights. This indicates an average of 5 nights per month, and if these were spread evenly there would be little cause for concern. However, the data strongly indicates that typical pattern for working nights involves seven consecutive nights (worked by 81.3% of night workers). In some cases the length of night shift was longer - a proportion of the ‘other’ category worked in excess of 12 hours per night.

Shifts systems of the sort typically worked by nurses (rotating, with long periods of lengthy night shifts) are precisely the type of system which run against current recommendations on shift design. (See Chapters 8 and 9 for more details). Despite this background of fundamentally flawed shift systems, the sample professed themselves reasonably happy with their shift systems, as measured by their preference for working different types of shifts. 35.3% of the sample expressed preference for rotating shifts, 10.1% for night shifts, while a further 8.3% had no preference. On the other hand 45.6% expressed preference for early shifts and 0.6% for late shifts. These findings should be interpreted with caution, since it is likely that nurses have little or no experience of other shift systems (although the literature suggests that 25-30% of people actively prefer shiftworking). In addition, the preference for night shifts in particular may reflect family circumstances rather than an active choice. (Many permanent women night workers work this system because of the perceived ease with which they can balance the demands of child rearing and work, particularly if they are lone parents. There is however a downside to this mode of living and working, as illustrated by Gadbois, (1981 a,b [2,3]).

Effects of shifts

The effects of the adverse shift patterns on various facets of health and wellbeing and working life are reflected in the findings presented below in Figure 4.10. The pattern of reported adverse effects on respondents' lives as presented below, in particular the first four, are typical of nurses working shifts and also of shiftworkers in general.

Table 4.3 Characteristics of night work

<table>
<thead>
<tr>
<th>Number of nights in the past 6 months</th>
<th>Percent</th>
<th>Duration of night shift</th>
<th>Percent</th>
<th>Max. number of consecutive night shifts</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>26.2</td>
<td>12 hour</td>
<td>79.3</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>1-10</td>
<td>12.2</td>
<td>10 hour</td>
<td>1.9</td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td>11-20</td>
<td>10.1</td>
<td>8 hour</td>
<td>1.9</td>
<td>3</td>
<td>8.0</td>
</tr>
<tr>
<td>21-30</td>
<td>23.3</td>
<td>other</td>
<td>17.7</td>
<td>4</td>
<td>7.1</td>
</tr>
<tr>
<td>31-40</td>
<td>11.9</td>
<td></td>
<td></td>
<td>5</td>
<td>1.1</td>
</tr>
<tr>
<td>42-50</td>
<td>11.3</td>
<td></td>
<td></td>
<td>6</td>
<td>0.2</td>
</tr>
<tr>
<td>50+</td>
<td>5.0</td>
<td></td>
<td></td>
<td>7</td>
<td>81.3</td>
</tr>
</tbody>
</table>

Figure 4.10 Effects of shiftworking on individual and social wellbeing and work
Notification of shift patterns

With 68.2% of the sample receiving 7 days or less notice of their duty roster and only 15.5% more than two weeks, these data reflect what appears to be the unplanned and haphazard nature of shift scheduling in nursing settings. It is also a factor with important implications for nurses' wellbeing. Lack of opportunity to plan ahead any reasonable amount of time can have severely limiting effects on the nurses' ability to maintain and develop the social support available to them. In addition, the constraining effects of this lack of notice of shifts has a major impact on family and social life. This, in addition to restrictions due to shiftwork and long hours, may have adverse effects by depriving nurses of an important buffer against the effects of stress.

4.5 Occupational health structures

One of the key structures for practical action in the occupational health sphere is the presence and activity of occupational health services and health and safety committees. In addition, these structures are of central importance to dealing with occupational stress, both because they have a legitimate role to play in this area, and, potentially at least, have the reach to effect change in all workplaces. It was against this background that a range of questions were asked of the sample in order to assess both awareness of, and the prevalence and activity of occupational health structures within the range of nursing workplaces present in the sample.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>With qualified doctor</td>
<td>25.1</td>
<td>62.9</td>
<td>12.0</td>
</tr>
<tr>
<td>With nursing staff</td>
<td>33.5</td>
<td>54.6</td>
<td>11.9</td>
</tr>
</tbody>
</table>

Table 4.4 Prevalence of workplaces with on-site occupational health services

The high percentage of the sample reporting no occupational health service is perhaps not surprising, and should be a cause for concern. Moreover, more than a third of the sample reported not having or not knowing of a health and safety committee in their workplace. 51.2% of the sample reported that their workplace had no safety statement, or they did not know of one, while only 16.2% reported that their workplace had an explicit or written health policy. When asked if their workplace had a policy on sexual harassment only 10.3% responded positively. A disturbing 42.7% of the sample did not know who their health and safety representative was. These findings reflect a lack of priority placed on occupational health issues in nursing workplaces and a lack of effective communication systems within workplaces. In addition, they pose a barrier to the implementation of the recommendations from this report.

4.6 Hospital demography

In this and the following sections, details of the kinds of workplaces in which the sample worked are provided. Information was sought on the workplaces in which the majority of the sample (and of nurses in general) work - the hospital, the community care area and education. It was not possible to seek detailed information regarding some of the more disparate workplaces, such as those worked in by occupational health nurses for reasons of length of the questionnaire and the relatively small numbers in these categories in the sample. Throughout these sections, the percentages quoted refer to only those nurses working within a particular type of workplace.

In this section 584 nurses reported working in hospitals.
sampled, giving an average of no more than 1.4 per ward. Second, many nurses would not have been working on their ward for the past three years, and therefore would underestimate the numbers leaving. Thirdly, in asking nurses for figures over the past three years, there is likely to have an underestimation of numbers due to forgetting who had left.

34% of the sample reported more than 5 members of staff having left their ward in the last three years, 9.1% more than 10. The estimate of annual turnover rate was 9.76% (1734 nurses were reported leaving over three years from ward population of 4490 staff and 1427 student nurses). This is a very high turnover rate (in industry, turnover rates are generally of the order of 1-3%).

The reasons for leaving are shown in Table 4.5. It should be noted that it was possible to cite more than one reason. The three most frequently reported reasons reveal a volatile population in that they all relate to movement from one workplace to another. The most common reason was “to take up a position in another country”, followed by “in another hospital” and “another unit”. 21.1% cited retirement as a reason. Given that a representative sample of INO members was selected and that INO members are representative of Irish nurses at large, and the fact that only 1.6% of this sample was over 60 years of age, such a high figure for retirement suggests that considerable levels of early retirement takes place. A figure of 21.8% was associated with “giving up nursing permanently”. This is an extremely high attrition rate. A similar figure of 18.5% associated with “for health reasons” reinforces the conclusion that we are dealing with a “survivor” population.

In general, the reasons given for people leaving the ward suggest two processes occurring. The first concerns what might be termed ‘natural’ mobility in the labour market (although how much of this is forced by lack of employment opportunities is unknown). The second gives rise for particular concern in the context of stress and occupational health. The high figures concerning leaving for health reasons and for purposes of early retirement strongly suggest that the sample we are dealing with and, by extension, the nursing population as a whole constitutes a ‘survivor’ population.

4.7 Workplace demography - Tutors

Because nurse tutors make up a relatively large proportion of the INO membership, and because of their key position with regard to nurse development, a separate section on nurse tutor demography was included in the questionnaire. This section sought information on topics such as tutor-student ratios, support available to tutors, the kinds of tutors they were and reasons for tutors leaving their teaching schools.

The sample of tutors and working conditions

Only 26 tutors from a sample of 40 replied to this section of the questionnaire. Of these, 45% were clinical tutors, 35% were tutors based in both classroom and clinical areas, and 20% were solely based in the classroom. Tutors were asked if they held teaching qualifications. 23.1% responded negatively. Almost one-in-four not having formal teaching qualifications (although this was a quite a small sample) is a disturbing figure, with implications for the quality of training provided to those entering nursing. In addition, it has relevance to the debate concerning professionalisation of nursing (see Section 4.3 above).

The sample reported that they were responsible for a mean of 156.7 students. The average number of tutors in the hospital was 7.4. The average number of hours taught per day was 3.4 hours. However, 80.8% of the tutors reported having other duties besides teaching. The most commonly reported of these were administrative duties (27.1%), committees (17.2%), curriculum design (16.7%), supervising/teaching at ward level (15.7%), and counselling students (11.8%). When asked if the pupil-tutor ratio had increased over the last three years 50% reported either “somewhat” or “greatly”.

Tutor turnover in hospitals

The same qualifications apply to the data described below in relation to tutors, as applies to the discussion on reasons for leaving among hospital based clinical staff. It was estimated that the turnover rate among tutors was 9.3%, though particular caution should be used when interpreting this figure due to the small sample size.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>to take up a nursing position in another country</td>
<td>55.9</td>
</tr>
<tr>
<td>because of a promotion</td>
<td>21.6</td>
</tr>
<tr>
<td>to retire</td>
<td>21.1</td>
</tr>
<tr>
<td>to take up a nursing position in another hospital</td>
<td>54.6</td>
</tr>
<tr>
<td>to take up a nursing position in another unit</td>
<td>41.1</td>
</tr>
<tr>
<td>to go on a career break</td>
<td>31.7</td>
</tr>
<tr>
<td>to give up nursing permanently</td>
<td>21.8</td>
</tr>
<tr>
<td>for health reasons</td>
<td>18.5</td>
</tr>
<tr>
<td>don't know</td>
<td>8.1</td>
</tr>
<tr>
<td>other</td>
<td>12.5</td>
</tr>
</tbody>
</table>

Table 4.5 Reasons for leaving - hospitals

Tutor support

When asked about the adequacy of the clerical support available to them 50% of tutors reported it to be bad or very bad and only 24% reported that they had adequate time for preparation within
duty hours. 30% reported spending 6 hours or more per week preparing classes outside duty hours. Similarly, only 26.9% reported adequate time during duty hours for correcting written work. 47.4% spent 4 hours or more per week outside duty hours on correction of written work. These results suggest a population under severe time pressure and considerable workload.

### 4.8 Workplace Demography - PHNs

Public Health nurses also make up a relatively large proportion of the INO membership, and because of their very different working circumstances, a separate section on PHNs was included in the questionnaire. In all, a total of 70 PHNs completed this section of the questionnaire. This section sought information on topics such as the kinds of patient they deal with, turnover among PHNs and the unique sources of stress and support available to them.

#### Working Conditions

Figure 4.12 outlines the distribution of patient numbers among PHNs. These figures reveal some very high levels of patient numbers. The figure of 41.2% of PHNs sampled having more than 1000 patients is an astonishing figure with implications for the nurse in terms of the difficulties in effectively meeting this level of demand and also for the quality of service to those who need it. 33.8% of the sample reported having less than 16 colleagues in their community care area and 92.1% reported that client turnover had increased somewhat or greatly over the last three years.

![Figure 4.12 Distribution of patient numbers among PHNs](image)

Table 4.7 below presents the type of patient groups and the percentage of PHNs reporting having patients in these categories. It illustrates the wide variety of demands and expertise required by PHNs and the fact that such high percentages are found for each suggests that almost all those surveyed had patients in the majority of groups, the exception being AIDS and HIV Positive patients.

#### Table 4.7 Distribution of types of patient among PHNs

<table>
<thead>
<tr>
<th>Type of patient</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elderly</td>
<td>90.0</td>
</tr>
<tr>
<td>Mothers and Infants under 3 years</td>
<td>93.3</td>
</tr>
<tr>
<td>School Clinics</td>
<td>72.4</td>
</tr>
<tr>
<td>Domiciliary Nursing Duties</td>
<td>85.0</td>
</tr>
<tr>
<td>At risk or vulnerable families</td>
<td>91.7</td>
</tr>
<tr>
<td>Mothers and Children over 3 years</td>
<td>90.0</td>
</tr>
<tr>
<td>Health Clinics</td>
<td>90.0</td>
</tr>
<tr>
<td>Physically Disabled</td>
<td>88.3</td>
</tr>
<tr>
<td>Mentally Disabled</td>
<td>88.3</td>
</tr>
<tr>
<td>Terminal Care</td>
<td>91.0</td>
</tr>
<tr>
<td>Child Welfare Clinics</td>
<td>84.7</td>
</tr>
<tr>
<td>HIV + AIDS Positive</td>
<td>30.4</td>
</tr>
</tbody>
</table>

#### Table 4.8 Reasons for leaving - PHNs

When asked why colleagues had left their area during the last three years the results reveal similar trends to those discussed above in the case of hospital based nurses. However, the most commonly cited reason was retirement (58%) of those asked reporting that a colleague had left for this reason. This argues for a relatively ageing cohort of PHNs. Almost a third of the sample reported PHNs leaving the country while as many as 25.4% cited health reasons as contributing to PHNs leaving. This high level of leaving for health reasons prompts similar questions to those asked in the case of hospital-based nurses regarding hidden occupational health problems.

#### PHN Stress and Support

The sources of stress which were particularly thought to apply to PHNs are outlined in Figure 4.13 below. In this Figure the percentages of the sample reporting stress either 'frequently' or 'always' is reported. From this data it can be seen that much of the stress unique to PHNs comes...
from the social conditions of their clients. In particular, social problems, problem families, families who abrogate their responsibilities rate highly as sources of stress. In addition, factors relating to the structuring of the job rate highly - demands for care which can't be met, queries from the public and inadequate staff relief are features of this trend. In general however, it should be noted that even the least common of these sources of stress occurs ‘frequently’ or ‘always’ exceeds 25% - in other words stress, from all ten of these sources is very common indeed. 

In general, these findings indicate that there is relatively little support provided to PHNs by fellow members of their Community Care team. (These findings are supported by earlier, small scale, WRC research on this topic. It should be noted however, that other disciplines perceive themselves as receiving relatively little support from PHNs). The overall impression is that there is relatively little teamwork within Community Care teams, despite the high levels of demand which PHNs (and other members) face.

These findings support the view that the outcomes of stress may be relatively high among PHNs, as the level of support available to them is likely to be insufficient to buffer them from the demands of their job. It should be borne in mind however, that the high levels of turnover among PHNs may make those remaining in the job a ‘survivor’ population.

4.9 Training

The issue of training has important implications for nurses and the amount of stress they suffer. If an individual feels inadequately prepared for the demands placed upon them they are exposed to what is termed qualitative work overload. This is a significant predictor of stress and the negative effects associated with it. Also, related to this is the issue of personal and professional development where feelings of stagnation can reduce job satisfaction and performance. The results presented earlier in relation to what respondents feel the role of the nurse should be should also be considered here as, if those desires are to be realised, training must play an integral part.

Considering these points the figure of 30.5% reporting no in-service training in the last year is perhaps indicative of a lack of ongoing training policy. A further 32.6% reported only 1 or 2 days training. When asked what was covered in these training courses the most commonly reported topic was “updating knowledge in a specialised area (72.1 %). Training to use new equipment was next at 32.4% and management training followed at 24.9%.

Considering the low number of days devoted to training the two latter figures are of interest. The constant development of new technology puts an ever increasing burden on users and access to adequate training is critical. The perception of management skills as a significant part of what the nurses role should be cannot be addressed adequately if the above figures remain the same in the future. Given the relative experience of this sample in terms of years nursing the fact that 20.2% report not having completed one external course, and 50.4% between one and three, since qualifying is of concern.

When taken into consideration that 47.9% and 37.6% report receiving financial assistance for training either none of the time or only some of the time respectively, that 73.5% report not being allowed any time off to study, that 51.5% report not being allowed time off for exams, 65.1% report ‘never’ or ‘sometimes’ being encouraged to enhance their education, 83.7% report ‘always’
or sometimes having difficulty gaining access to training, 91.1% report no financial rewards, 82% report no recognition for training, a picture emerges that describes an extremely negative environment which will have to be addressed if the wishes of nurses for professional and personal development are to be realised. In essence, it seems clear from this data that post-qualification training plays no significant part in most nurses working lives.

When asked what reasons best describe why it was difficult to further their training the most common response was "no funding". Figure 4.15 below presents these results.

**Figure 4.15** Barriers to further training for nurses

It is of interest is that the least common barrier is the outside of work factor of family commitments. This finding runs contrary to many common prejudices held regarding the commitment of married nurses with children. When asked if they had ever received financial rewards in lieu of training 91.1% said no. 62.4% reported that relief staff were not arranged during training. Thus, an already stretched workforce is put under more pressure and this awareness may act as a constraint on individuals who do not want to expose their colleagues to even greater workloads while they are training. Furthermore, 55.9% of the sample reported that they were not entitled to any days training while the average for the sample was only 2 days. This indicates either that there is a lack of training policy or that there is a lack of awareness of what that training policy actually is.

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Chapter 5. The Experience of Stress Among INO Members

This chapter outlines results from the survey with reference to sources of stress, coping strategies and the outcomes of stress. The main sources of work stress are examined, the ways in which nurses cope with the stress arising from these sources, and the major outcomes of stress reported by the sample are presented and discussed. In addition, results relating to the issue of assault of nurses are also presented. A later chapter describes the relationships between the experience of stress and nurse and workplace demography.

5.1 Sources of stress

5.1.1 General sources of stress

This survey employed a number of ways of examining occupational stress. It examined both generic and nursing specific sources of stress, using both standard scales and open-format questions. Figure 5.1 presents the seven most highly rated items from the generic sources of stress scale.

**Figure 5.1** Highest scoring items from generic sources of stress scale

The Figure above presents the seven items with the highest percentage of the sample reporting that they caused them stress 'frequently' or 'always'. A number of these items, those ranked 2, 3, 4 and 6 may be said to represent the more general issue of organisational climate, which is typical of occupational groups sampled by the WRC in Ireland. This can be taken to indicate that it is...
not the work per se which causes most stress, but the way in which it is organized. "Overwork" was the item associated with the highest level of stress with 56.3% of the sample responding "frequently" or "always". High levels of stress were also associated with "lack of consultation/communication" (46.6%) and "being undervalued" (44.1%)

5.1.2 Nursing specific sources of stress

The nursing stress questionnaire was concerned with a wide range of potential sources of stress in the nursing context. It should be noted that much of the content of this questionnaire deals specifically with patient nurse interactions, and is of questionable relevance to nurses from administrative backgrounds. The results outlined below are therefore particularly related to nurses with direct interaction with patients. The following Figure, 5.2, highlights the eight highest scoring items from the nursing stress scale. The percentages refer to the percentages of nurses reporting these sources of stress either 'frequently' or 'very frequently'.

It is interesting to note from the results presented in Figure 5.2 that involvement in policy/decision making" at 48% is similar to the general source item regarding the amount of non-nursing tasks undertaken by nurses. The single most important sources of stress amongst nurses were reported stress, which are reported below. The next item, "lack of involvement in policy/decision making" at 48% is similar to the general source item "lack of consultation/communication" at 46.8%.

Apart from the general and nursing stress questionnaire the respondents were asked to spontaneously report the three most important sources of stress for them and the three most important measures that could be taken to reduce stress amongst nurses. The Figure below, 5.3, details the percentage of the sample reporting that a particular issue is an important one. Similarly the percentage of the sample reporting measures to reduce stress associated with a particular issue are presented. This Figure outlines only the most prevalent sources of stress and measures to reduce stress.

![Figure 5.3 Spontaneously reported sources of stress and ways to reduce stress](image)

Research has shown that for those under severe workplace stress the only option may be to leave the profession. In order to examine this issue, respondents were asked about the likelihood of their leaving nursing assuming the availability of another job. A disturbing 40.2% of the sample reported that they would be either "quite likely" or "very likely" to give up nursing if another job was available. This is indicative of a population under severe stress and is considerably higher than most comparable data from other professions.
5.1.3 The assault issue

Assault during the career

The issue of assault in the workplace has been one of increasing concern in the health care area particularly in Britain and the United States. The prevalence of assault amongst a nursing population in Ireland has not been systematically documented to date. This study investigated a range of aspects of this issue. Data on frequency, source, severity of injuries received, outcomes and support received for both physical and verbal assault were examined.

A startling figure 39.3% of the sample reported experiencing assault from patients at some time in their career, with 5% of nurses reporting assault from visitors (see Figure 5.4). Small percentages also reported assault from intruders, fellow nurses or other hospital colleagues. These figures mean that in excess of 46.6% of the sample had been assaulted at some time during their course of work (almost making it a normative feature of nursing), and that physical assault is a considerable source of threat to health and wellbeing.

![Figure 5.4 Frequency of assault by source](image)

Physical assault during the past year

Respondents were also asked how often they had been assaulted by any of the following in the previous year. Figure 5.5 presents the results from nurses who reported having been assaulted in the past year. 30.9% of the sample reported assault from patients in the past year while the figures for fellow nurses, hospital colleagues, intruders and visitors were 1.3%, 1.4%, 1.4% and 4.3% respectively. These findings are perhaps even more striking, as they indicate that assault is not an isolated nor a chance phenomenon. With regard to assaults from patients, those who had been assaulted (n=238) reported an average of almost 4 assaults in the past year, while assaults from fellow nurses (n=10) and other hospital colleagues (n=11) averaged more than two in the past year. Assaults from intruders (n=11) occurred on average twice during the past year, while assaults from visitors (n=33) occurred 1.8 times on average. This evidence of consistent physical assault asks important questions regarding the steps which are taken to reduce the phenomenon.

![Figure 5.5 Number of assaults by source in the past year](image)

Injuries from physical assaults

The most commonly reported and most severe injury as a result of assault was an emotional one, see Figure 5.6 below. Of those who have experienced assault only 22.3% experienced no emotional distress while 65.9% reported minor or moderate distress and 11.8% severe distress. Another disturbing finding is the reporting of severe injuries in the "other" category on the part of 16.0% of the sample, while 15% of the sample reported bruising as a result of assault.

Surprisingly though, in spite of the prevalence of assault and its apparent severity, the amount of time taken off by those who have been assaulted is negligible. 96.4% (346) of the sample reported having taken no time off as a result of assault, 2.2% between 1 and 3 days, 0.3% between 4 and 6 days and 1.1% more than 10 days. These findings are indicative of a nursing culture where showing signs of distress is discouraged (and it is hard to imagine a situation which is more likely to induce distress than physical assault) and again calls into question the structures and policies in place to deal with assault.

![Figure 5.6 Injuries from physical assaults](image)
Analysis of the data on the incidence of verbal abuse reveals the most frequent sources being patients and patients' relatives with 27.9% and 20.0% of the sample respectively reporting abuse "often" or "regularly". However, between 8% and 10% of nurses reported frequent verbal abuse from fellow hospital staff. These findings are sufficiently strong to suggest that verbal abuse is an intimate part of hospital culture and management style. Figure 5.7 below presents these results.

![Figure 5.7 Frequency of verbal abuse](image)

The most significant sources of support after incidents of physical or verbal assault are perceived to be other nurses and the spouse/partner. The least significant sources of support according to the sample are the INO and nursing administration with 83.3% and 62.7% reporting no support from these sources respectively. It should be noted however, that nurses may not perceive the INO to be a source of support when assault incidents occur. This interpretation is supported by anecdotal evidence from the INO, who report only infrequent notification of assault incidents. Figure 5.8 below presents the percentages of the sample reporting none, some or a lot of support from various sources.

![Figure 5.8 Amount of support available following assault or abuse](image)

These figures give us a disturbing picture of frequent physical and verbal abuse which is not being addressed by other professionals other than nurses themselves. They also provide strong evidence that the policies (if they actually exist) for dealing with assault or abuse are severely deficient.

5.1.4 The physical work environment

This final section on sources of occupational stress examines the descriptive data gathered on aspects of the physical work environment as sources of stress. Respondents were asked to report how frequently range of aspects of their environment such as excessive heat or cold, poor ventilation, lifting patients and infectious agents caused them stress. Figure 5.9 below presents the results from this part of the questionnaire.

The percentages below represent those who responded 'frequently' or 'always'. As can be seen from the chart, by far the most frequent sources of stress in the physical work environment are lack of space, lifting patients and excessive heat, with in excess of 40% of the sample reporting. An interesting point concerns the relatively high levels of stress caused by having to deal with bodily fluids (25% reported stress 'frequently' or 'always' from this source). This may indicate a lack of awareness of, a lack of belief in, or even a lack of workplace policy and procedures to deal with the problems posed by HIV and Hepatitis viruses.
In order to determine if the outcomes observed in the sample could be due to factors outside the workplace, respondents were asked to provide information on possible sources of stress from this source. A common approach to investigating non-workplace stressors deals with the amount of change a person has experienced in the recent past. Life changes or major life events are associated with a potential stress load for the person and subsequent physical and psychological outcomes. Such events range from potentially severely stressful events such as the death of a spouse or close family member to more “minor” potential stressors such as getting engaged. Although the questionnaire used contains some items related to work the framework in which the events as a whole are viewed is one of major stress occurring outside work. Respondents reported whether or not these events occurred in the previous 12 months. Figure 5.10 presents the seven most frequently reported life events.

It is interesting to note that 31.4% of the sample reported a change in work situation. It is significant that one of the few work related events in this part of the questionnaire should be the most frequently reported. This is further evidence to support the hypothesis that a significant amount of the stress experienced by the sample is due to workplace factors especially when compared with the frequency of reported stress from other non-workplace stressors. Such a finding is also in accordance with other data suggesting a very mobile workforce. However it should also be noted that some of the most frequently reported life events are amongst those considered most potentially stressful.

5.3 Coping and health related behaviours

This section examines the closely related issues of coping and health related behaviours. To...
To examine coping it is necessary to consider both coping measures or strategies and coping resources.

The survey obtained six measures of work related coping strategies used by nurses (this is a taken from a scale specifically designed to measure nursing coping styles [1]). The dimensions of coping provided by this scale are:

- problem-oriented behaviour - attacking the source of stress directly
- trying to unwind and put things into perspective
- expressing feelings and frustrations
- keeping the problem to yourself
- accepting the job as it is and trying not to let it get to you
- passive strategies for handling the situation

Though all of these coping strategies can be appropriate in dealing with stress, active coping strategies, such as problem oriented behaviour are more effective than palliative strategies such as passive strategies or keeping the problem to yourself.

Social support is a category of coping resource which is of importance in buffering the individual from the effects of stress. To determine the coping resources available to the respondents a measure of the amount of social support they receive from the both work and outside of work sources was included.

Finally, also included were measures of health related behaviours which are often viewed as coping strategies as they can directly affect the relationship between demands and the outcomes of stress. These involve smoking, alcohol intake, exercise patterns, caffeine consumption and sleeping patterns.

5.3.1 Coping strategies

Figure 5.12 below presents the six most frequently reported strategies used by the sample. The percentages represent those who reported using these strategies either 'often' or 'very often'. It is notable that the most commonly used strategies are all constructive - they relate to addressing the problem directly, engaging in social support, and thinking your way through problems, i.e. adopting cognitive strategies appropriate to the problems faced. The prevalence of these forms of coping strongly indicates that the sample had a series of positive coping strategies at their disposal which they practised. In essence, the effects of stress reported below were unlikely to be due to failures in personal coping strategies.

This interpretation is supported by the results from the coping factors (i.e. where the individual coping items are grouped together into broad coping strategies), which are outlined in Figure 5.13 below. The most common coping strategies were problem-oriented coping and acceptance, while the least common strategies were feeling expression and passive coping. This profile strongly suggests that nurses, on the whole, cope well with stresses they face. However, the question as to whether this is effective or not in preventing the outcomes of stress will be addressed later.

![Figure 5.12 Most commonly used coping strategies](image_url)

![Figure 5.13 Use of coping strategies](image_url)
the light of research findings which show that support at the workplace is more effective than support outside of the workplace in combating workplace stress.

Other staff in your workplace
Your workplace management
Your nurse colleagues
Your supervisor
Your neighbours
Relatives and other friends
Your spouse or partner

Figure 5.14 Amount of social support available to the sample

The adequacy of social support was also investigated, as this can be an even more important predictor of stress outcomes. People have different needs for support. In essence, adequacy of the support received from various sources may be low even though levels of support are high and vice versa. In the present study, a mean score of above 4 indicates that the level of support tends to be adequate. For the present sample the mean was 4.2. However, even though on average the amount of support received by the respondents was adequate this finding indicates considerable room for improvement.

5.3.2 Health related behaviours

The health related behaviours outlined above can be viewed either as moderators of the stress process or as outcomes of stress in their own right. In the present context it is more appropriate to view them as moderators as they have direct influences on the kinds of outcomes reported below in Section 5.4.

Smoking

The percentage of smokers in the sample was 24.5. However although less than one in four was a smoker 42.7% of these reported smoking more than 10 cigarettes a day. The finding that 40.7% of smokers reported “frequently” smoking more when under stress, and 37.4% “sometimes”, indicates that for the smokers in this sample the smoking habit is deeply ingrained as a means of coping with stress.

Caffeine intake

Caffeine intake can be an important moderator of the stress reaction, since, in pharmacologically active doses, it raises blood pressure and heart rate. It has been estimated that taking more than five cups of tea and/or coffee per day produces a sustained rise in heart rate and blood pressure, which provides a background for the action of the stress reaction.

The data from the study indicate that many nurses effectively amplify the effects of stress through their daily caffeine intake (see Table 5.1). With an average intake of 7.7 cups per day and almost three-quarters of the sample ingesting a pharmacologically active dose, caffeine intake is high.

<table>
<thead>
<tr>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5</td>
<td>27.5</td>
</tr>
<tr>
<td>6-7</td>
<td>25.7</td>
</tr>
<tr>
<td>8-10</td>
<td>30.4</td>
</tr>
<tr>
<td>&lt;10</td>
<td>16.4</td>
</tr>
</tbody>
</table>

Table 5.1 Prevalence of caffeine intake

Exercise

The taking of regular exercise is one of the best ways of increasing resistance to the effects of stress. Research shows that people with higher fitness levels can function under higher levels of demand and can generally cope more effectively with stress.

Those reporting taking exercise amounted to 82.8% of the sample which is similar to other Irish samples. The finding of 17.2% reporting taking no exercise at all is also not unusual but is a cause for concern. A high proportion of those who take exercise report exercising either every day or every few days (68.2%), which is higher than a recent teachers sample. This may reflect a high awareness of the benefits of exercise among a population who are, by the nature of their job, health conscious. (It should also be noted that studies of clinical nurses have indicated that there is a high energy output during the course of work - effectively nurses receive quite a lot of exercise just by working).

Respondents were asked their most frequent type of exercise. The vast majority (70.2%) reported walking as their most frequent type of exercise. This finding is almost twice that of other samples and may be a reflection of a shiftworking population.

Fifty-eight percent of those taking exercise reported taking exercise sometimes or frequently to cope with stress. This is a considerable higher percentage than other samples. Although exercise as a coping strategy is essentially passive in nature, it nevertheless builds up resistance to the effects of stress.

Alcohol consumption

Alcohol consumption is often associated with stress both directly as an outcome and as a means of coping with stress. A range of indices of alcohol consumption were obtained from the respondents. These included weekly alcohol intake, use of alcohol when under stress, and trends in alcohol consumption. It should be noted that surveys of alcohol consumption almost always produce an underestimate of alcohol consumed, and therefore the findings below should be viewed with caution. Table 5.2 outlines the results from this section of the questionnaire.
Percentage consuming alcohol 79.9
Average no. of days per week on which alcohol is consumed 1.7
Average consumption per week - pints of beer 1.3 = 2.6 units - glasses of wine 1.5 = 1.5 units - half glasses of spirits 1.6 = 1.6 units - total 4.4 = 5.7 units
Percentage drinking more than 12 months ago 9.7
Percentage regularly* drinking more when under stress 24.6

Table 5.2 Alcohol consumption by the sample
*regularly = sometimes or frequently

These figures suggest on average moderate alcohol consumption by the sample. Recommended maximum weekly intake of alcohol amounts to 21 units for men and 14 for women whereas this sample reports an average of just 5.7. Those reporting drinking the same or less than 12 months ago amount to 90.2% of drinkers. However, although the percentage regularly drinking more when under stress (and by implication, as a means of coping with it) is lower than in some other Irish samples, a finding of almost 1 in 4 must be of concern as it represents a way of coping which is potentially particularly harmful.

Sleep quality
Respondents were asked for a global rating of sleep quality and about specific types of sleep disruption. Sleep can be viewed as a moderator of stress or as an outcome of stress in its own right. In this case it is being viewed as a moderator of stress.

Although only 7.4% rated their quality of sleep as bad or very bad when asked about three specific types of sleep disruption a very different pattern emerged. 36.3% reported difficulty getting to sleep, 24.8% difficulty staying asleep, and 65.2% that they felt their sleep had not refreshed them. This apparent contradiction may be due to respondents difficulties in accurately estimating the general quality of sleep, but being better able to answer questions about specific types of sleep disruption. Almost 10% answered yes to all three questions which indicates serious sleep disruption in these individuals.

These results, which are outlined in Figure 5.15, suggest that a high proportion of the sample are not getting enough benefit from sleep, with the probable result that they would be more susceptible to the outcomes of stress. However, other samples investigated by the WRC have reported higher levels of sleep difficulties. This suggests, particularly in view of the fact that the majority of the sample are shiftworkers, that a selection effect is in operation, in other words those who cannot tolerate nursing (or shiftworking) have selected themselves out of the profession, thereby leading to a healthy worker effect.

5.4 The outcomes of stress

This section details the descriptive findings relating to the outcomes of stress. These are so called because each of the measures reported on below have both empirical and theoretical links to the stress process. It is however known that each of these outcomes are influenced by factors other than stress. The issue of whether or not, and the extent to which, outcomes reported by this sample can be explained by the stress they reported will be dealt with in the next chapter. The outcome measures examined in the study are outlined in Table 5.3 below.

<table>
<thead>
<tr>
<th>Physical outcomes</th>
<th>Psychological outcomes</th>
<th>Job satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digestive symptoms</td>
<td>Cognitive anxiety</td>
<td>Intrinsic job satisfaction</td>
</tr>
<tr>
<td>Musculoskeletal symptoms</td>
<td>Somatic anxiety</td>
<td>Extrinsic job satisfaction</td>
</tr>
<tr>
<td>Psychosomatic symptoms</td>
<td>Psychological wellbeing</td>
<td>Overall job satisfaction</td>
</tr>
<tr>
<td>Total symptomatology</td>
<td>Major illnesses in the last five years</td>
<td></td>
</tr>
<tr>
<td>Menstrual distress</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.3 Outcome measures used in the study

5.4.1 Physical health

Respondents were asked to rate their general health on a four-point scale from 'excellent' to 'poor'. Only 7.5% rated their health as being 'fair' or 'poor'. 743 nurses reported 5,700 days absent which is an average of only 7.7 days. However, 64.7% reported 0-3 days absent in the last 12 months. This represents a rate of absenteeism which is far below the industrial norm in Ireland.

11.3% or 78 respondents reported having been hospitalised in the last 6 months. This figure is very high, though the majority of the hospitalisations were concerned with pregnancy. The remaining causes warrant investigation to ascertain if there is an occupational link. Of these 82% were hospitalised once. The average was 1.26 with an average stay of 6.0 days. When asked if they had suffered a major illness in the last five years 15% responded positively.
5.4.2 Physical symptoms

Figure 5.16 below shows the most prevalent physical symptoms among the sample. These occurred either 'frequently' or 'constantly' during the previous month. The finding of the most commonly reported symptom to be back pain is of interest in that lifting of patients was one of the highest stressors reported in the physical work environment. The findings that six of the top seven most prevalent physical symptoms were musculoskeletal in nature is also of interest. It indicates the heavy physical nature of much of the work undertaken by nurses, and also it constitutes evidence of occupation-related ill health.

Figure 5.16 Most prevalent physical symptoms

Figure 5.17 presents details of the findings regarding the four physical symptoms factors - digestive symptoms, musculoskeletal symptoms, psychosomatic symptoms and total symptomatology. From this it can be seen that the most prevalent symptoms were musculoskeletal in nature. This most probably reflects the physical demands of nursing. The next most prevalent symptoms were digestive and psychosomatic in origin, which reflects the fact that the majority of the sample were shiftworkers and also points to the likelihood of stress related outcomes.

The level of physical symptomatology seen among the sample is somewhat higher than that found in other Irish samples, and is roughly comparable to findings from the international literature.

5.4.3 Menstrual distress

The issue of menstrual distress is of importance amongst nurses for two reasons. Firstly, one of the outcomes of stress reported by women concerns menstrual disruption, while a second issue of concern in the case of nurses relates to the potential effects of shiftworking on menstrual cycles. The questionnaire sought to measure a range of menstrual symptoms using a scale developed by Tasto et al (1978) [2], which was used with a sample of more than 1000 nurses in the US.

Unfortunately there was some confusion in the results from the present sample regarding the numbers who still have a menstrual cycle (conflicting information was obtained from two different sources). The best estimate of a valid 'n' was that 647 out of 771 of the sample still had a menstrual cycle, i.e. 83.9%.

Of those nurses reporting still having periods 62.4% reported having painful periods, 4.6% reported that their periods keep them from work, 37.4% reported having irregular periods and on average, these nurses had to lie down as a result on 1.58 days per month. The sample were also asked about how they felt at the end of their periods. 15.1% reported feeling nervous, 11.6% reported feeling angry, 16.6% reported feeling weak or sick and 15.5% reported hot and cold flushes before periods.

The prevalence and severity of pre-menstrual tension was also investigated. In all, 85.1% of the sample reported experiencing PMT at least 'sometimes', with 13.4% reporting that they experienced PMT 'always'. Only 13.3% of the sample reported the symptoms of PMT to be negligible, while 18.2% suffered major or disabling symptoms. 'Minor' symptoms were reported by 68.5% of the sample.
5.4.4 Anxiety and Psychological Wellbeing

Figure 5.18 details the findings in relation to anxiety and psychological wellbeing. It indicates that 37% of the sample reported high levels of cognitive anxiety, 25% reported impaired levels of psychological wellbeing and 10% reported high levels of somatic anxiety. These findings give rise for concern, particularly in relation to cognitive anxiety, where levels of distress are high in relation to almost all other groups sampled by the WRC and to a lesser extent in relation to psychological wellbeing, where levels of distress are considerably higher than the average for Irish employees, if not as high as some other occupational groups under high levels of stress. This latter finding may reflect the positive coping strategies identified in the sample, but may also be indicative of a healthy worker effect, whereby those who cannot cope select themselves out of the working population.

![Psychological wellbeing, Somatic anxiety, Cognitive anxiety](image)

**Figure 5.18** Anxiety and psychological wellbeing among the sample

5.4.5 Job Satisfaction

A seventeen item questionnaire was used to assess levels of job satisfaction among the sample. This measure is best viewed as a measure of work related stress outcome. In addition to the information gathered on the seventeen separate items, the measure provides three factor scores - intrinsic job satisfaction, which relates to the satisfiers to be found in the nature of the job itself; extrinsic job satisfaction, which relates to the satisfiers to be obtained from the working conditions; and overall job satisfaction, which is a combination of these latter two factors.

Figure 5.19 outlines the main sources of dissatisfaction reported by the sample. The percentages given in this and the next Figure refer to the 'extremely' and 'very' categories - 'dissatisfied' in Figure 5.19 and 'satisfied' in Figure 5.20.

Rates of pay are by far the highest single sources of dissatisfaction amongst the sample, with 65% reporting themselves to be very or extremely dissatisfied. Of the remaining sources of dissatisfaction, three relate broadly to management style and organisational culture (the way the organisation is managed, industrial relations and recognition) while the other two refer to structural features of nursing (hours of work and promotion prospects).

![Main sources of job dissatisfaction among the sample](image)

**Figure 5.19** Main sources of job dissatisfaction among the sample

The principal sources of job satisfaction concerned job security (which is not surprising given the tenure of permanent nurses) and fellow workers, with almost half of the sample professing themselves very or extremely satisfied with these two aspects of work. The remaining items with which the sample were satisfied largely concerned the intrinsic items of challenge, responsibility and variety in the job. This finding indicates some scope for enhancing the amount of challenge and responsibility in the nursing role, particularly in light of the findings on professional development which were reported in Chapter 4.

![Main sources of job satisfaction among the sample](image)

**Figure 5.20** Main sources of job satisfaction among the sample

Figure 5.21 depicts the findings with regard to intrinsic, extrinsic and overall job satisfaction. These indicate a cause for concern, as on average, the sample were only barely on the satisfied side of the 7 point scale (a score of above 4 indicates satisfaction). This interpretation is
supported by the findings that 6.6% of the sample were extremely or very dissatisfied with the intrinsic factor, while only 16.1% were extremely or very satisfied with this factor. For a professional group, it would be expected that ratings of intrinsic factors would be far higher.

In relation to extrinsic job satisfaction, 5.3% were extremely or very dissatisfied with the intrinsic factor, while only 8.9% were extremely or very satisfied with this factor. This is perhaps surprising in light of the relatively secure job tenure of many nurses, but is probably outweighed by dissatisfaction with rates of pay. Finally, 6.4% were extremely or very dissatisfied with the intrinsic factor, while only 10% were extremely or very satisfied in terms of overall job satisfaction. In general this provides a picture of a working population who are not very happy with their jobs, the majority of whom are not much more than neutral towards a range of important aspects of working life.

### Figure 5.21 Distribution of job satisfaction factor scores among the sample

<table>
<thead>
<tr>
<th>Overall</th>
<th>Extrinsic</th>
<th>Intrinsic</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.9</td>
<td>3.95</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>4.05</td>
<td>4.1</td>
</tr>
<tr>
<td>4.1</td>
<td>4.15</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Mean score

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This chapter presents findings from the first stage of the inferential analyses carried out on the data. It relates personal and workplace demography to sources of stress, coping and outcomes. It is essentially exploratory in nature, as it takes pairs of variables at a time, but provides indications of the factors which are most important in determining levels of stress amongst nurses.

### 6.1 Introduction

This section uses bivariate analysis to examine the associations between each of the independent variables (demographic variables) and each of the dependent variables (sources of stress, outcomes and coping styles). The variables in Table 6.1 are the demographic (independent) variables which were used in the analysis. Table 6.2 depicts the outcome (dependent) variables used.

This inferential analysis is applied to answer questions such as for example: do nurses from different age groups experience a stressor like death and dying in a significantly different way, and do hospital based nurses experience more stress than community based nurses. In these analyses each of the demographic (independent variables) and the dependent variables (see Tables 6.1 and 6.2) are compared with each other, or at least if not each variable, then demographic variables which might be expected on theoretical or other grounds to be associated with outcome variables are compared. The results from these analyses are reported below. Only those results which were found to be significant at the 0.01 level are reported. (This means that there is a 99% chance that any differences observed are real, and not due to chance).

### Table 6.1 Independent variables used in the analyses

<table>
<thead>
<tr>
<th>Personal demography</th>
<th>Hospital demography</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade</td>
<td>Area</td>
</tr>
<tr>
<td>student</td>
<td>Medical</td>
</tr>
<tr>
<td>staff nurse</td>
<td>Surgical</td>
</tr>
<tr>
<td>Ward/theatre/night sister</td>
<td>Maternity</td>
</tr>
<tr>
<td>Tutor</td>
<td>Mental handicap/psychiatric</td>
</tr>
<tr>
<td>Matron/equivalent</td>
<td>Paediatric</td>
</tr>
<tr>
<td>PHN</td>
<td>Special care</td>
</tr>
<tr>
<td>OHN</td>
<td>PHN</td>
</tr>
<tr>
<td>Other</td>
<td>Geriatric</td>
</tr>
<tr>
<td>Age</td>
<td>A&amp;E</td>
</tr>
<tr>
<td>Under 20</td>
<td>Theatre</td>
</tr>
<tr>
<td>21-30</td>
<td>Other</td>
</tr>
<tr>
<td>31-40</td>
<td>Hospice</td>
</tr>
<tr>
<td>41-50</td>
<td>OHN</td>
</tr>
<tr>
<td>51-60</td>
<td>Specialist nurse</td>
</tr>
<tr>
<td>60+</td>
<td>Education and research</td>
</tr>
<tr>
<td></td>
<td>Type of hospital</td>
</tr>
<tr>
<td></td>
<td>Shift Schedule</td>
</tr>
<tr>
<td></td>
<td>day only</td>
</tr>
<tr>
<td></td>
<td>night only</td>
</tr>
<tr>
<td></td>
<td>rotate: earlies/lates</td>
</tr>
<tr>
<td></td>
<td>rotate: earlies/lates/interpersed with nights</td>
</tr>
<tr>
<td></td>
<td>rotate: earlies/lates/ blocks of nights</td>
</tr>
<tr>
<td></td>
<td>Patient turnover</td>
</tr>
<tr>
<td></td>
<td>Increased greatly/DK</td>
</tr>
<tr>
<td></td>
<td>Increased somewhat</td>
</tr>
<tr>
<td></td>
<td>Hasn't increased at all</td>
</tr>
<tr>
<td></td>
<td>Tenure</td>
</tr>
<tr>
<td></td>
<td>Full/part time</td>
</tr>
<tr>
<td></td>
<td>Perm./temporary</td>
</tr>
</tbody>
</table>

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Table 6.1 Independent variables used in the analyses
Sources of stress

Generic Sources
- nature of the job
- roles
- relationships at work
- career development issues
- organisational structure and climate
- the home-work interface

Nursing specific sources
- workload
- death and dying
- inadequate preparation for the job
- uncertainty concerning treatment
- need for support
- conflict with nurses
- conflict with physicians

Outside of work stress
- life events

Outcomes
- Physical symptoms
  - musculoskeletal
  - digestive
  - psychosomatic
  - general
- Wellbeing
  - cognitive anxiety
  - somatic anxiety
  - wellbeing
- Job satisfaction
  - intrinsic
  - extrinsic
  - overall

Coping strategies
- problem oriented behaviour
- trying to unwind and put things into perspective
- express your feelings or frustrations
- keeping the problem to yourself
- accepting the job as it is and trying not to let it get to you
- passive strategies for handling the situation

Table 6.2 Dependent variables used in the analyses

In presenting the results from these analyses, only statistically significant results have been selected, since the presentation of all of the analyses would significantly lengthen this Chapter. For the same reason, only some of these results have been illustrated in diagrammatic form. Results which are particularly striking, or which are exemplars of a number of findings are shown in the diagrams. The level of detail upon which this Chapter is based, is reduced considerably in the following Chapter where the findings from the multiple regression analyses are reported.

6.2 Demography and sources of stress

6.2.1 Grade and sources of stress

Students experienced most stress

Students experienced significantly more stress than all other grades in relation to stress arising from conflict with nurses, lack of support and inadequate preparation. Figure 6.2 below illustrates this finding in relation to stress coming from inadequate preparation.

Students also reported experiencing more stress than all groups except ward sisters in relation to stress arising from death and dying and workload (see Figure 6.3 below). This finding strongly contradicts the literature (see chapter 2) where lower grade nurses invariably experience less stress than higher grade nurses. The most likely explanation for this finding concerns the training procedure which student nurses undergo in Ireland. Student nurses in this sample undergo an apprenticeship style of training, whereas in most other countries nurses undergo more academic training. Therefore the nurses in this sample experience stress from working and studying at the same time. Also, due to cutbacks in health care expenditure, student nurses are filling positions usually staffed by fully trained nurses and therefore experience increased stress from trying to perform the nursing duties of trained staff.

Ward sisters report most stress from workload

Figure 6.3 shows the experience of stress arising from nursing workload by grade. Although occupational health and public health nurses would have similar levels of responsibility as ward sisters, it is interesting to note that they experience significantly less stress from workload than this group. This finding suggests that it is probably structural aspects of hospital work which differentiates between those working outside of hospital settings and ward sisters.
responsible for both administrative and nursing duties (effectively a middle-management role) probably best explains the finding in relation to workload.

Occupational health nurses experience least stress

Occupational health nurses and others experienced significantly less stress than students and staff nurses on stress coming from nature of the job, role and relationships at work. Again these findings are most likely best explained in terms of the structural aspects of the work settings of occupational health nurses. These nurses usually work in occupational health departments in industrial settings and as a result would have more clearly defined roles and relationships.

There were no grade differences in the experience of stress due to organisational climate, home-work interface and career development. This does not suggest that these were not experienced as stressors, rather that all nurses irrespective of grade experienced stress due to these factors in a similar way. Organisational climate and career development are organisational sources of stress and certainly, in the case of hospital nurses, would reflect that nurses accept the organisational structures which prevail.

Students experience more life events

Students also experience significantly more life events than tutors, public health nurses, ward sisters, others and staff nurses. This finding is what might be expected, because younger people and particularly students usually experience more changes in their personal lives than other groups.

Nurses - a survivor population

The overall findings in relation to grade and sources of stress, where student nurses experience the most stress and occupational health nurses the least stress, supports the 'survivor population' hypothesis. This suggests that those nurses who are the most stressed have already left the profession and those who remain are there because they are better able to cope with stressors. This finding is corroborated by the finding that large numbers of nurses are leaving the profession for health reasons.

6.2.2 Age and sources of stress

The under 29s were most stressed

In general, the two younger age groups, under 20 and 20-29, experienced greater stress than the two older age groups on all sources of stress variables. Figure 6.4 illustrates this finding in relation to the stress arising from inadequate preparation. It is mainly students and staff nurses who fall into these age categories and therefore this finding is consistent with grade where students experienced the most stress. This finding also offers support for the 'survivor population' hypothesis.

Nurses in their 40s and 50s experienced significantly fewer life events than nurses under 39. As already mentioned in the previous section, this is what one might expect, as younger age groups generally experience more changes in personal circumstances than older age groups.

6.2.3 Area and sources of stress

Occupational health nurses were least stressed

Overall occupational health nurses experience significantly less stress than other groups in relation to all sources of stress variables. This is consistent with the findings from the section on grade where occupational health nurses experienced less stress and again it is most likely due to the structural aspects of their jobs being significantly different to those of hospital based nurses.

Accident and Emergency, medical and surgical nurses experience most stress

Nurses working in accident and emergency, medical and surgical departments reported experiencing stress more frequently on almost all sources of stress. (Figure 6.5 illustrates the findings in relation to stress coming from nursing workload by area). This contradicts the literature, where in general it was found that all nurses irrespective of unit experienced the same two stressors most frequently (workload and death and dying) and that nurses from different units did not differ significantly in their experience of these sources of stress. The fact that associations were found in this study perhaps points to structural aspects accounting for the differences between the work of these units and other units in the hospital.
6.2.4 Tenure and sources of stress

No difference in experience of stress between full-time and part-time nurses.

There were no significant differences between full-time and part-time nurses in the experience of sources of stress and life events.

Temporary nurses have most stress from conflict with nurses.

In relation to the differences between permanent and temporary nurses, there were very few significant differences, however, temporary nurses reported significantly more stress from conflicts with nurses than permanent nurses. This is possibly because of factors associated with their status, for example, because they are temporary they are less involved than permanent nurses, also they may have less control over their jobs. Temporary nurses also reported experiencing more life events than permanent nurses. There is no obvious reason why this should be so and this finding should be treated as spurious.

6.2.5 Shift schedules and sources of stress

Nurses on rotating shifts experience most stress.

Differences between types of shift were reported in relation to stress from the nature of the job, career development, workload, death and dying and uncertainty concerning treatment. In all cases where differences were reported, those nurses who worked rotating shifts interspersed with nights (rotation 1) experience more stress than those who worked days only. (Rotation 2 refers to working early and lates with blocks of nights). Figure 6.6 shows the findings in relation to the experience of stress arising from nursing workload.

![Figure 6.6 Stress arising from nursing workload by shift](image)

These findings are what might be expected from an increase in workload which is not supported by a similar increase in resources.

6.2.6 Type of hospital and sources of stress

Nurses from Voluntary hospitals experienced more stress.

In relation to the type of hospital only three of the nursing specific factors were significantly different between the hospitals. In the case of inadequate preparation and uncertainty concerning treatment voluntary hospitals experienced more stress from these sources than hospitals in the other category and in the case of death and dying both voluntary and health board hospitals experienced more stress than other hospitals.

6.2.7 Patient turnover and sources of stress

Nurses who felt turnover had increased greatly experienced more stress.

Those nurses who felt turnover had increased greatly experienced more stress than those who felt turnover had not increased at all in relation to life events, stress from nature of job, role, relationship and lack of support.

Groups who felt patient turnover had increased experienced significantly more stress from workload (see Figure 6.7 below), death and dying, inadequate preparation, uncertainty about treatment, conflicts with physicians and conflicts with nurses to a greater or lesser extent than those who felt turnover had not increased at all.

![Figure 6.7 Stress from nursing workload by patient turnover](image)

These findings are what might be expected from an increase in workload which is not supported by a similar increase in resources.

6.3 Health and demographic

Two measures assessed the health or outcomes of the sample. Physical health was assessed on four dimensions and wellbeing on two. In general, it is expected that the more stress experienced by the sample the higher the level of outcomes. In interpreting these findings, it should be borne in mind that factors other than stress can influence the experience of outcomes.
6.3.1 Grade and physical health

Of the personal demographic variables only grade was significantly related to physical health.

Students experienced most physical symptoms and occupational health nurses the least.

The experience of physical health symptoms differed across different grades. Overall occupational health nurses have the best physical health. Occupational health nurses reported experiencing significantly less musculo-skeletal symptoms than staff, ward sisters, managers and students. Students on the other hand reported significantly more musculo-skeletal symptoms than public health nurses, tutors, occupational health nurses and others. Figure 6.8 shows this finding in relation to musculo-skeletal symptoms.

![Figure 6.8 The experience of musculo-skeletal symptoms by grade](image)

In relation to the experience of psychosomatic symptoms, occupational health nurses and staff nurses reported experiencing fewer symptoms than managers or students, and students reported experiencing significantly more psychosomatic symptoms than staff nurses and others.

On the general measure students experienced more symptoms than occupational health nurses, public health nurses, tutors, others and staff nurses.

The findings for each of the dimensions of physical symptoms is what might be expected, that those who experienced the most stress should show the most symptomatology and vice versa. However, the finding that students generally have higher symptoms is disturbing.

Other studies have shown a grade level difference in symptomatology, whereby those at lower grades report highest levels of symptoms. In addition, they report higher levels of symptoms among more experienced workers (a duration of exposure hypothesis). However, the findings here run contrary to much of the literature, indicating that an additional process is at work in the present sample. This process is the selecting out of the work population of people with poorer health - thereby producing the healthy worker effect.

6.3.2 Age and health

No differences between the age groups.

There were no significant differences between nurses of different age groups and the experience of physical health. This is an interesting finding, since in relation to the experience of stress it was found that nurses under 29 experienced more stress from all sources of stress than nurses in the over 50 categories and consequently one would expect to find that younger nurses develop more physical symptoms, all things being equal. However, the high level of turnover in nursing seems to select out nurses who are either most at risk, or who are unable to continue nursing for health reasons.

6.3.3 Area and health

Specialist and geriatric nurses show most musculo-skeletal and psychosomatic symptoms.

Overall, there were very few differences in the experience of physical symptoms across area and where these differences did exist they were small. It was found that specialist, geriatric and theatre nurses experienced more musculo-skeletal symptoms than paediatric nurses, and geriatric and specialist nurses reported more psychosomatic symptoms than paediatric nurses. Specialist nurses also reported more psychosomatic symptoms than accident and emergency nurses and more general symptoms than occupational health nurses. The reasons that geriatric and specialist nurses experience more symptoms may be related to the nature of their jobs. In the case of geriatric nurses they deal with patients who are getting worse all the time and specialist nurses deal with intense work, technology and patients in critical conditions.

6.3.4 Tenure and health

Part-time nurses experienced more symptoms than full-time nurses.

There were no significant differences in the experience of symptoms on any of the four dimensions between permanent and temporary nurses. However, part-time nurses experienced more musculo-skeletal, general and psychosomatic symptoms than full-time nurses. Part-time nurses also experienced more cognitive anxiety that full-time nurses. This is probably because of the status of their jobs, where they are uncertain of their roles, are often given the worst jobs and as we have reported earlier, have more stress from outside of work factors. It may also be evidence for nurses being a survivor population, as nurses may drift into part-time work (and eventually out of the profession) as a result of poorer health.

6.3.5 Hospital demography and health

No associations.

Although relationships were found between each of the hospital demographic variables (type of shift, type of hospital and patient turnover) and the sources of stress it is interesting that there were no differences in the experience of health variables between any of the hospital demography variables used on any of the four dimensions of physical symptoms or the two wellbeing variables.
6.4 Job satisfaction and demography

6.4.1 Grade and job satisfaction

Students and staff nurses experienced least intrinsic job satisfaction than all other grades. Students experienced less intrinsic job satisfaction than occupational health nurses and others. Staff nurses experienced significantly less intrinsic and total job satisfaction than ward sisters, public health nurses, other outside hospital and occupational health nurses. These findings are consistent with those on sources of stress and grade.

![Intrinsic job satisfaction by grade](image)

**Figure 6.9 Intrinsic job satisfaction by grade**

**Occupational health nurses experienced more extrinsic and total job satisfaction**

Occupational health nurses experienced more extrinsic satisfaction than students, staff nurses and ward sisters and public health nurses experienced more extrinsic job satisfaction than students and staff nurses. Occupational health nurses also experienced more total job satisfaction than students, staff nurses and ward sisters.

All the findings in relation to grade and job satisfaction are as might be expected, those who experienced the most stress also experienced the least job satisfaction and visa versa. It is also interesting to note that occupational health nurses experienced most job satisfaction on all three measures and the least stress.

6.4.2 Age and job satisfaction

**Older nurses have greater job satisfaction**

Nurses in their 20’s experienced less intrinsic job satisfaction than those over 40, nurses in their 30’s experienced more extrinsic job satisfaction than all other age groups, and nurses over 60 experienced more total job satisfaction than all other age groups. This is what might be expected since older nurses also experienced less stress than younger nurses. This finding offers further support for the 'survivor population' or 'healthy worker effect', where those nurses in the older categories who were suffering from stress have left the profession and those who remain are the ones who are able to cope with the job or the 'healthy workers'. In addition, it poses questions regarding the future of the profession, if those who are youngest and least experienced are reporting the most intolerable conditions in the workplace.

6.4.3 Area and job satisfaction

**Geriatric nurses have less intrinsic and total job satisfaction**

Geriatric nurses were less intrinsically satisfied than occupational health, accident and emergency, maternity, public health, special care, specialist and other nurses outside hospital settings. This finding is consistent with the literature which suggests that geriatric nurses experience less job satisfaction due to the nature of the job, for example, they lack status and are dealing with patients who get progressively worse.

**Nurses outside hospitals have more extrinsic and OHNs have most total job satisfaction.**

In general, the groups outside hospital settings were more satisfied than those within hospital settings in relation to extrinsic job satisfaction. Occupational health nurses, public health nurses and others outside hospital settings were more extrinsically job satisfied than nurses from almost all other areas. This finding supports the findings from sources of stress, where nurses outside of hospital settings, particularly occupational health nurses experienced less stress. It also indicates that structural aspects of the job are most likely to account for the differences between nurses from within the hospital environment and those outside.

**Figure 6.10 Total job satisfaction by area**

Figure 6.10 shows that occupational health nurses have significantly more total job satisfaction than geriatric, theatre, medical, accident and emergency, other nurses within hospitals, mental handicap, psychiatric and surgical nurses. Again, this reflects the findings from the sources of stress, where occupational health nurses experienced the least stress.
6.4.4 Tenure and job satisfaction

Permanent nurses more satisfied than temporary nurses

While there were no differences between full-time and part-time nurses in relation to job stress, Figure 6.11 shows that permanent nurses were more satisfied than temporary nurses on all three dimensions of job satisfaction. This finding is best interpreted in relation to the significance of the status of nurses, temporary nurses probably have less control over their jobs and less certainty about tenure which may contribute to lowered job satisfaction.

![Figure 6.11 Job satisfaction for temporary and permanent nurses](image)

6.4.5 Hospital type and job satisfaction

Nurses in voluntary hospitals had more intrinsic and total job satisfaction than nurses in health board and other types of hospitals

With regard to the hospital demographic variables the only significant relationships were in relation to intrinsic and total job satisfaction and type of hospital, where nurses in voluntary hospitals had more intrinsic and total job satisfaction than nurses in health board and other types of hospitals. This finding may be explained in terms of the management structures which operate in these hospitals. Health board hospitals may be perceived to be more bureaucratic and have less direct lines of communication because they are managed from outside, whereas voluntary hospitals are generally managed from within the hospital.

6.5 Coping behaviour and demography

6.5.1 Grade and coping

Students use passive strategies most often.

Figure 6.12 shows that students use passive coping strategies significantly more often than other groups of nurses. Findings also show that they use problem oriented strategies significantly less than all other nurses. This set of findings indicates that appropriate coping strategies for dealing with the stress of the job are not taught in the nursing schools, but are acquired by the 'survivors' as they gain experience.

![Figure 6.12 The usage of passive coping strategies by grade](image)

These findings are consistent with the literature, where several studies (see chapter 2) have found that the type of coping strategy employed by nurses is related to the level of experience held, and that more experienced nurses use more task oriented strategies while inexperienced nurses use more emotional coping strategies.

Ward sisters use problem oriented strategies

Ward sisters use problem oriented strategies significantly more than staff nurses and public health nurses. In the case of staff nurses and ward sisters this finding again supports the literature that more experienced nurses use more positive coping strategies.

6.5.2 Age and coping

Under 29s used problem oriented strategies least often

Figure 6.13 shows that nurses under 29 used problem oriented strategies significantly less than all other age groups. It was also found that nurses in their 20s and 30s used passive strategies significantly more than older nurses. Again, these findings are supported by the literature.

Findings also show that nurses over 50 use expression more than those in their 20s and 30s. This finding seems unusual in that one would expect that nurses over 50 have managerial status and should be better able to cope with stress. Having said that it is perhaps a lack of training for management which manifests itself in the use of this negative coping strategy.
6.5.3 Area and coping

Geriatric nurses used acceptance and hospice nurses used passive strategies most frequently. Figure 6.14 shows the usage of acceptance as a coping strategy across the different areas. In general, geriatric nurses used acceptance strategies more frequently than other nurses. This strategy is probably adopted by these nurses due to the nature of their job, which entails dealing with more death and severe illness than many other types of nursing.

Findings also show that hospice nurses used passive strategies more frequently than other nurses, this finding is again best explained in terms of the type of patient they are dealing with.

6.5.4 Tenure and coping

Full-time and permanent nurses use more problem oriented strategies

Results show that full-time nurses use problem oriented strategies more than part-time nurses. Also, permanent nurses use problem oriented strategies significantly more than temporary nurses and that the latter use more passive strategies. This indicates that nurses who are full-time and permanent have more control over their jobs and perhaps because of security of tenure, or because of having more exposure to dealing with the stresses of the job, they use more positive coping strategies.

6.5.5 Shift schedule and coping

Figure 6.15 illustrates the usage of passive strategies and different shift schedules. It was found that nurses who rotated blocks of nights used problem oriented behaviour significantly more than those who rotate between earlies and lates, while nurses who worked the shifts with interspersed nights used passive strategies significantly more than those on the day shift. These findings are difficult to explain, and may be spurious.

6.6 Summary

In conclusion, students experience the most stress, the highest levels of outcomes and the least job satisfaction, and they employ the most negative coping strategies. By comparison, occupational health nurses experience the least stress, the best physical health and the most job satisfaction. Overall, non-hospital based nurses reported less stress and more job satisfaction than hospital based nurses, which suggests that factors intrinsic to the structure of the work environment may best account for the differences experienced between these groups. The nurses working in accident and emergency, medical and surgical departments experienced the most stress in relation to all sources of stress, however they did not experience corresponding levels of outcomes. Perhaps this is because they have adapted their coping strategies to deal with these stressors effectively. Geriatric nurses experienced the least job satisfaction and specialist nurses the most outcomes. Also, the finding that older nurses, and nurses in higher grades experienced less stress, fewer physical symptoms and more job satisfaction strongly points to the existence of a 'survivor population' amongst nurses.
Chapter 7. The factors influencing health and wellbeing

In this Chapter the results from a series of multivariate analyses are reported. These analyses were designed to identify the most important factors in predicting levels of stress related outcomes. The factors which have been identified provide the basis for recommendations to be made in the last Chapter.

7.1 Introduction

Previous Chapters have outlined results from a series of so-called bivariate statistical analyses, i.e. where the relationship between single independent variables (e.g. age) and single outcome variables (e.g. job satisfaction) were examined. In this Chapter the results from a series of multivariate analyses are summarised, i.e. where a number of independent variables are examined simultaneously in relation to an outcome variable.

The statistical procedure used is called multiple linear regression. This procedure enables the unique contribution of the full range of independent variables to be assessed. It enables questions regarding the relative weight of the variables which make up factors such as personal demography, work demography, social support, sources of stress and coping styles to be assessed in terms of their relationship to so-called outcome measures (in this case four measures of physical symptoms, a composite measure of psychological wellbeing and two measures of job satisfaction).

The model which informed this set of analyses is outlined below in Figure 7.1.

![Figure 7.1 A model of the regression analyses](image-url)
In this model a distinction is made between predictor variables (e.g. personal demography) and outcome variables (e.g. psychological wellbeing). In essence, the model says that some aspects of personal demography may predict levels of wellbeing.

It should be emphasised that not all possible predictor variables were used in these analyses, only those ones which had been seen to be significant in previous univariate analyses were used.

The outcome variables used in the analyses were:
- Digestive symptoms;
- Musculoskeletal symptoms;
- Psychosomatic symptoms;
- General symptomatology;
- Psychological wellbeing;
- Intrinsic job satisfaction; and
- Extrinsic job satisfaction.

These were selected on the grounds that they represent some of the major classes of stress related outcome and that they provide a good range of coverage of both work related and more general stress outcomes. All of the outcome variables used in these analyses are well used measures which enable comparison with other studies in the literature.

### 7.2 Interpreting regression analyses

A series of graphs are used to summarise the results from the regression analyses. In these figures the Beta co-efficients from the analyses are illustrated. Beta co-efficients are a measure of the strength of relationship between predictor and outcome variables. A positive Beta value indicates that there was a positive relationship between the predictor variable (e.g. conflict with nurses) and the outcome variable (e.g. digestive symptoms), i.e. the higher the value of the predictor variable, the higher the value of the outcome variable, while a negative value indicates a negative relationship, i.e. the higher the value of the predictor variable, the lower the value of the outcome variable. The size of the co-efficient also indicates the strength of the relationship, i.e. a value of 40 is higher than 20, and indicates that variable having the higher co-efficient explains more of the outcome variable than the lower one.

Also indicated on the graphs is a measure known as 'percentage variance explained'. This refers to the level of success in explaining the variation in levels of the outcome variable. The value of 30 in relation to digestive symptoms, for example, indicates that 30% of the variation in these symptoms was explained by the combination of factors entered into the regression equation. The remaining 70% of variance would be explained by a combination of factors not used in the analysis or not measured in the survey, e.g. dietary habits, congenital factors etc. Typically the percentage variance explained in surveys such as these ranges between 20% and 50%. (It must be borne in mind that the purpose of the survey was to investigate stress levels, not to try to predict digestive symptoms, for example).

### 7.3 What explains Physical Health?

Four measures of physical symptomatology were used in the analyses: digestive, musculoskeletal, psychosomatic and overall (the sum of the previous three) symptoms. The results from the regression analyses are outlined in Figures 7.2 to 7.5 below.

![Figure 7.2 Factors explaining digestive symptoms](image)

Percentage variance explained = 30

Four variables were associated with levels of digestive symptoms (in order of strength of relationship), stress from conflict with nurses, a coping style of keeping problems to yourself, lack of management support and nursing experience. The level of prediction by these four variables was quite high, at 30%.

It is striking that levels of conflict with nurses are associated with digestive symptoms, as the time necessary for stress to produce physical symptomatology is relatively long, thereby indicating that the stress from this source is chronic.

It is also striking that lack of management support is associated with digestive symptoms, as the time necessary for stress to produce physical symptomatology is relatively long, thereby indicating that the stress from this source is chronic.

It is also striking that lack of management support is associated with higher digestive symptoms (it should be noted that support from other sources, e.g. colleagues, spouse/partner, was not associated with these symptoms). This finding illustrates powerfully the capacity of management actions to directly influence the stress process over an extended period. (It should be noted that the appearance of physical symptoms tends to take longer than psychological symptoms). It is customary to see lack of support associated with psychological outcomes, but rarer to see it associated with physical symptoms.

The association of the negative coping style of keeping problems to yourself with digestive symptoms, is consistent with literature which suggests that people with 'repressive' coping styles are more likely to generate anxiety and ultimately physical symptoms.

The fact that experience was also associated with symptoms may indicate that age is associated with these symptoms, but may also signify that the cumulative demands of nursing increasingly express themselves in line with greater amounts of experience.
Figure 7.3 summarises the findings regarding musculoskeletal symptoms. Again four variables were associated: stress from conflict with nurses, stress from the home-work interface, grade level and working full-time. Again, the level of prediction by these four variables was quite high, at 30%.

The findings relating to the sources of stress are mildly surprising, since stress from these sources would not generally be expected to have this association. Perhaps the best explanation of the finding concerns the more psychosomatic aspects of musculoskeletal symptoms.

The finding that working full-time was associated with higher musculoskeletal symptoms is not at all surprising, indeed it is perhaps surprising that it was not more consistently associated with other outcome variables. The finding is best interpreted in relation to exposure to hazards - the longer you are exposed to these occupational hazards (in particular, lifting), the greater the number of symptoms seen.

The finding that grade is positively associated with greater musculoskeletal symptoms is of special significance. It might be expected that grade would be negatively related, i.e. that those in the lower grades would report higher symptomatology, as this is a common finding in the literature. However, the fact that higher grades reported more symptoms, seems to indicate that those who have been promoted retain the musculoskeletal symptoms they developed while working on the wards. This interpretation is supported by the findings that many nurses who leave nursing do so for health reasons, and would presumably work at the lower grades.

Figure 7.4 summarises the findings regarding psychosomatic symptoms. Seven variables were associated with these symptoms - stress from conflict with nurses, stress from the home-work interface, working shiftwork, lack of management support, working in the maternity area, experience and the coping style of keeping problems to yourself. The level of prediction by these seven variables was quite high, at 34%. The findings regarding the two sources of stress (conflict with nurses and the home-work interface) are consistent with the literature on the generation of psychosomatic symptoms - in essence, that one of the most common causes of these symptoms is occupational stress. Equally, the finding that a negative, repressive coping style is associated with these symptoms is not surprising.

Lack of management support (not other sources of support) was also associated with psychosomatic symptoms, a finding which is also consistent with the literature. However, there is no theoretical reason to suppose that job experience should be associated with psychosomatic symptoms - certainly no consistent age related effects have been reported. This finding would indicate that there is a cumulative effect of the occupation of nursing on symptoms - the more experience you have the more likely you are to report these symptoms.

The finding with regard to working in the maternity area, that maternity nurses report lower levels of psychosomatic symptoms is consistent with findings reported earlier that sources of stress tend to be lower in this area. In general, the perception that maternity is a 'nice' area to work in is supported.

The finding regarding shiftwork is indeed surprising - it would be expected that shiftworkers would report higher symptomatology than non shiftworkers. This anomalous finding may be due to a selection effect, i.e. those who are non-shiftworkers now may well have been shiftworkers in the past, and there is strong evidence to suggest that ex-shiftworkers, particularly those who have moved off shift because of health reasons, report higher levels of symptomatology. This interpretation should be accepted with caution, however, as similar patterns should also be seen with regard to other types of symptoms. If this is not the case, then this finding may well be spurious.
Figure 7.5 summarises the findings regarding general symptomatology, i.e. the sum of all physical symptoms reported. As was the case for psychosomatic symptoms, seven variables were associated with these symptoms and these were identical to those reported above - stress from conflict with nurses, stress from the home-work interface, working shiftwork, lack of management support, working in the maternity area, experience and the coping style of keeping problems to yourself. The level of prediction by these seven variables was high, at 42%.

7.4 What explains Psychological Wellbeing?

Figure 7.6 summarises the findings regarding psychological wellbeing. In all, seven variables were associated with wellbeing - adequacy of social support, stress arising from the home-work interface, working in the maternity area, working in two kinds of 'other' area and the coping styles of keeping problems to yourself and keeping a perspective on things. The level of prediction by these seven variables was quite high, at 35%.

By far the most powerful variables in explaining levels of mental wellbeing were stress arising from the home-work interface and the coping style of keeping problems to yourself. These findings are striking - in the first case it illustrates the difficulties nurses have in managing the stresses of home and work while in the second it illustrates the power of inappropriate coping styles to influence mental health.

It was interesting to note that there were no substantial differences between married and single nurses with regard to stress arising from the home-work interface, nor were there differences between those who had children and those who didn't. Therefore while the stress arising from this source was not associated with obvious potential sources of stress in the home, it must be emanating from the work side of the equation. The working of shiftwork and the levels of demands of nursing may explain this finding far more than any purely home-based issue.

Figure 7.7 summarises the findings regarding intrinsic job satisfaction. In all, six variables were associated with it - management support, adequacy of support, stress arising from career development issues and the nature of the job and working in the special care and geriatric areas. The level of prediction by these six variables was very high, at 53%.

The strongest single predictor variable was stress arising from lack of career development opportunities, which was negatively associated with intrinsic job satisfaction. Two support variables, management support and adequacy of support, were positively associated with intrinsic job satisfaction. Other factors which were associated with low intrinsic job satisfaction were stress from the nature of the job, working in the geriatric area, while working in the special care area was associated with high intrinsic job satisfaction.

These findings indicate the powerful role which management support has to play in the boosting of job satisfaction. Not alone is it related to mental and physical health, but it is also related to
the rewarding aspects of the job. This central role for management support, and indeed leadership is amplified by the findings on career development (the career development scale is made up of items relating not only to promotions opportunities, but also to the quality of feedback about work).

**Figure 7.7 Factors explaining intrinsic job satisfaction**

The other findings in relation to special care and the geriatric areas support the popular conceptions about the satisfaction to be derived from nursing (and indeed medical) work - high tech nursing is more satisfying (as well as better resourced) than low tech nursing.

Figure 7.8 summarises the findings regarding extrinsic job satisfaction. In all, eight variables were associated with it - management support, adequacy of support, stress arising from career development issues and nursing workload, full-time working, job tenure, working in the surgical area and a passive coping style. The level of prediction by these six variables was very high, at 50%.

As before in the case of intrinsic job satisfaction, the support of management and the adequacy of social support available to the nurse has a central role to play in maintaining and promoting extrinsic job satisfaction. The capacity of contractual matters to contribute to extrinsic job satisfaction in particular was also prominent - full-timers had higher job satisfaction, while those on temporary contracts reported lower levels of satisfaction. This interpretation is supported by the knowledge that temporary nurses are often called in to work at short notice and for short periods.

Stress coming from career development issues was also negatively associated with extrinsic job satisfaction - in this case it is likely that the promotion aspects of this factor (in particular lack of opportunities for same) were especially prominent. The finding regarding the surgical area (that they have lower extrinsic satisfaction) is hard to explain, as there is no a priori reason for expecting this finding. It may be best to treat it as a spurious finding.
In this Chapter the main results from the survey are summarised. Particular attention is paid to putting the results in the context of nursing in Ireland, and into a broader context of workplace health and safety. The implications of the results for future action are also described.

In this Chapter attention is drawn to the key areas and issues which have emerged from the survey. Though the survey provides a rich and panoramic view of the nature of nursing in Ireland today, a number of significant issues emerged which deserve special treatment. Some of these issues may have been suspected as being important to the development of nursing and the reduction of stress before the survey was undertaken - the survey results now provide hard data on these issues - but others have emerged from the survey findings to provide a new perspective on what are the critical issues facing nursing today.

The discussion in this Chapter focuses on areas which are central to the issue of managing stress in nursing. Here we seek not only to describe these issues, but also to provide explanations of their importance. In the final Chapter recommendations are made with specific reference to managing stress in relation to them, but it should be recognised that there are other aspects of these issues, relating to for example, professional development, maintenance of standards, conditions of work and the general direction which nursing seeks to follow which will not be taken up, as this is beyond the brief of this report.

1. Students

Some of the most striking findings which emerged from the survey related to the position of students in nursing. Anecdotal evidence would have suggested that students are under pressure from simultaneously trying to manage the demands of training and working. The findings from the survey not alone support this evidence, but give particular weight to the belief that they are among the most vulnerable groups to the effects of stress in the whole of nursing.

They reported higher sources of stress than most other groups in terms of conflict with nurses, lack of support on the job, inadequate preparation, death and dying and nursing workload. In relation to the other sources of stress (both generic and nursing related), students almost invariably reported higher stress than other groups, though this did not reach statistical significance.

In addition to these findings, students also reported higher levels of negative coping styles, lower levels of positive coping styles, more psychosomatic symptoms, general symptomatology and less job satisfaction than most other grades.

These findings indicate very strongly that nursing is a stressful profession, as the entrance process to the profession is especially stressful and is generating costs for new entrants. Findings reported elsewhere in this document support this interpretation, especially those concerning turnover, and the likelihood that those who remain in the profession constitute a survivor population (see section 3 below).
2. The induction process in nursing

The phrase occupational socialisation refers to the process whereby people take up the social norms of the workplace upon entry to the workplace. During the induction process into nursing (student years and the immediately following years), a particularly negative and powerful process of socialisation appears to take place.

In particular, the findings relating to students, where they reported higher sources of stress, higher levels of outcomes in some cases and particularly, the higher rates of negative coping styles, indicates that there is a powerful process of occupational socialisation taking place whereby entrants to the profession are subjected to high levels of demand and are taught (in effect) inappropriate coping styles. (It is noteworthy that problem-oriented coping styles only become prevalent among the higher grades). In addition, the findings concerning post-qualification training, whereby training is at best sporadic, is very often unsupported by the employers and is rarely recognised in terms of career progression reinforces the process of negative occupational socialisation.

In essence, the structures and institutions of nursing appear to be operating upon new entrants to the profession in such a way as to discourage many of them from remaining in the profession. The findings concerning support in the workplace, management style and working conditions serve to amplify the feeling that the profession is not only hostile to new entrants, but that the entry process is viewed as something of an obstacle course, which only the select are able to overcome. Furthermore, this process of socialisation continues beyond the student phase and continues to operate upon more experienced members of the profession, particularly on those at lower grades. In other words, nurses remain subject to the pressures first placed upon them as students, with perhaps slightly less negative results as they develop more appropriate coping styles and as they are given more latitude to control the demands of the job (as they rise through the grade structure).

In order to reinforce this point, comparison can be made with nurses working outside the hospital structure, who generally reported a far better profile of stress related factors than hospital based nurses. In particular, occupational health nurses reported fewer sources of stress, more control over their jobs, and consequently better health and wellbeing.

3. Nurses: a survivor population

The findings from the survey particularly in relation to health status (whereby age was not significantly associated with physical health status), in addition to the findings regarding shift workers and non-shift workers, whereby shift workers do not appear to be reporting higher levels of either physical or mental health outcomes, suggests strongly that the population surveyed are essentially a “survivor population”. This hypothesis is put forward because it would be expected to find poorer health and wellbeing among both older and shiftworking nurses.

There is other evidence from the survey to support this hypothesis. In particular the high levels of turnover from the profession suggest that those who remain in the profession are those who cannot afford to, or are not able to leave. In addition, the finding that a high percentage of nurses would leave if they had alternative jobs to go to is supportive of the view that nurses constitute a survivor population.

These findings should be viewed with care as an accurate assessment of the levels of turnover and the reasons for turnover was not available (it would be necessary to survey those who have left for a more accurate assessment). However, the high rates of nurses leaving the profession because of health reasons and the high rates of people leaving the profession for the country entirely, would indicate that there is something seriously amiss with the way the profession is structured. High levels of turnover are rare in the Irish economy, where the possibility of alternative employment is very limited. Yet nurses report very high levels of turnover, which taken together with anecdotal evidence of reduced numbers entering the profession, indicate that nursing has lost a considerable amount of its old attraction.

One of the characteristics of survivor populations is that they report fewer and less serious negative outcomes related to working life than might be expected. As a corollary, a survey of people who have left the profession would be likely to find much higher rates of occupational related illness and poor mental wellbeing. One of the more interesting and important follow-ups from this study should be to investigate this hypothesis: are nurses who have left the profession doing so because of occupational related illness? This is of more than academic interest, as a demonstration that nursing is negatively affecting nurses health would carry major implications for employers responsibilities under Health and Safety legislation.

Findings elsewhere in the literature that nurses have lower life expectancies for example (see Chapter 2) would suggest that there is a strong possibility of occupation-related health costs to nursing.

4. Shift Working and Nursing

In many cases shift working is a sine qua non of nursing (particularly in hospital based settings), and shiftwork is known to be a major source of threat to health and wellbeing (see Chapter 2) the findings relating to shift work in this study were somewhat surprising. It is particularly striking that shift workers did not appear to report much higher rates of outcomes than non-shift workers. This finding is surprising because almost all of the literature would lead one to expect that this would be the case.

However, there is a plausible explanation for this in relation to this sample of nurses, since they are likely to constitute a survivor population, whereby those who have left the population are likely to report higher levels of work related outcomes. This finding is consistent with many findings in the shift work literature where it has been often demonstrated that ex-shift workers tend to have higher rates of occupational related illness.

Notwithstanding these somewhat equivocal findings there are strong indications that the kinds of shifts worked by nurses are far from optimal. In particular the preponderance of week-on week-off night duty which was reported by large percentages of the sample gives rise to concern.

The design of shift schedules is now quite a sophisticated process whereby schedules can be designed such that the operational needs of staffing, the social needs of workers and the health needs of workers are maximised. It is apparent from the data relating to shift work that most of the shift schedules worked by nurses do not in effect seek to maximise these factors.

It should also be born in mind that under the 1989 Health and Safety and Welfare at Work Act, that systems of work which are injurious or potentially health threatening should be monitored, corrected and redesigned in so far as is practically feasible. In this context, shiftwork systems which have been demonstrated to be actively harmful to health, in effect break the law. Against this background the issue of shift work design is the subject of a recommendation in the following chapter.
5. Professional Development in Nursing

Though the issue of professional development and the extent to which nursing is a profession and or a vocation is perhaps tangentially related to the stress process, the data which emerged from the survey on this issue, indicate cause for concern. In relation to all of the seven dimensions of professional development enquired of in the survey (teaching, nursing care, teamwork, professional development, counselling, communication and management), nurses reported that their aspirations regarding these dimensions were in all cases not being met by the actuality of the job. In essence, there is a large body of nurses who report that their professional needs are not being satisfied by the current structuring of the job. This finding is supported by what might be regarded as a poor skill mix within teaching hospitals, whereby a low senior nurse to student ratio, promotes professional dissatisfaction.

These findings are probably related to the reported high levels of turnover from the job and the high levels of nurses leaving the profession entirely.

This poses a significant challenge for the development of nursing and should be viewed in the context of other data from the survey with regard to the inadequacies of training, the treatment of students upon entry into to the profession and comments made regarding management style and support in the workplace.

6. Post qualification training for Nurses

The data which emerged from the survey regarding training within the profession gives rise for concern. In particular the findings regarding access to training, financial support for training, the nature of the training itself, the recognition given particularly for post-graduate training all indicate that training is effectively not viewed as being a tool of professional development in any serious way. It seems remarkable that so many nurses actually undergo training of various sorts given the barriers that they face. This is a tribute to their individual commitment to their jobs and to their profession but is an indictment of the profession as it stands with regard to the development of nurses. In effect, it would appear that nurses are trained in spite of the system rather than because of it.

Of course, training and its availability has wide ramifications for the professional development of nurses as well as the management of stress. In the former context, difficulties of access to training and a lack of recognition of it in tangible terms militates against the enhancement of professional status. In relation to stress management it has a crucial role to play for all grades of staff. At the operational level, the high percentage of nurses reporting stress from feeling ill prepared for the tasks they must perform indicates a need for both more and more widely available training. In addition, the findings regarding stress arising from management style, and the high levels of stress amongst managerial staff indicate the need for appropriate management training. (Anecdotal evidence would suggest that many nurses promoted to managerial grades receive little or no training for this role, either in terms of strategic or operational management skills or particularly human resource management skills).

Finally, the finding, from an admittedly small sample, that many tutors have received little or no teaching training (i.e. they have no teaching qualifications) for their jobs is a strong indictment of the level of commitment to professionalisation within the profession.

7. Support at Work

The findings with regard to support in the workplace are especially instructive in the results from the survey. As indicated earlier in this report social support has a major role to play in coping with stress and in relation to a whole range of other facets of working life (we will concern ourselves only with social support in relation to stress in this report).

Particularly striking was the finding that lack of management support and lack of adequate support was strongly related to a range of both work-related and more general outcomes. This finding is consistent with the literature, where it is common to see support at work being implicated in the generation of work related outcomes. It is noteworthy that other potential sources of support such as those arising from family or friends or from spouse or partner were not strongly associated with negative outcomes. A further indication of lack of support came from the data concerning assault, where it was widely perceived that support, particularly management support was lacking after such incidents.

This finding indicates on the one hand a need for more management support and on the other an inability, for whatever reason, of management to actually provide this support. It is likely that the reasons for this lack of support stem from at least two sources. The first concerns the prevailing culture within nursing, which can be characterised as being bureaucratic, authoritarian and patriarchal. In essence, the pyramidal shape of the nursing hierarchy, whereby higher grades are perceived to be sitting on top of the lower grades and where those at the top of the hierarchy are seen as deriving their support from those below who are working at the front line, needs to be inverted, to give a tree like structure, whereby those working in the front line are seen to be supported by a strong `trunk' and strong `branches', if support in the workplace is to be enhanced.

The second reason for this perceived lack of support concerns a combination of factors relating to pressures of work, lack of management training and a failure to appreciate the role which support can play, not alone in reducing the impact of an undeniably stressful job, but in encouraging high standards, professionalism and in general organisational performance.

Either or both of these reasons may explain why workplace support appears to be lacking. The findings relating to workplace support are sufficiently important to warrant a recommendation in its own right which is given in the next chapter.

8. Structures for occupational health

Under the 1989 Health, Safety and Welfare at Work Act, workers are entitled to elect their own health and safety representatives, to take part in health and safety committees, to have access to information regarding workplace hazards and to receive appropriate training to function effectively in these roles. The evidence from the survey would suggest that many nurses are unaware of these occupational rights. In fact many are unaware of the existence of health and safety committees (partly because they don't actually exist in many workplaces) and of the existence of health and safety representatives (again perhaps for this reason).

Since the issue of stress comes firmly under the health and safety banner (see recent publications and activities of the Health and Safety Authority) these findings are of particular concern. If stress is to be effectively managed within the workplace, health and safety committees must be enabled to take appropriate action in the light of the results of this survey. The absence or relatively low level of functioning of health and safety committees and health and safety representatives are therefore a cause of concern. This issue is again of
sufficient importance to warrant a recommendation in its own right which is given in the next chapter.

9. Non-Nursing Duties

The findings with regard to non-nursing duties are of major interest as it is a common perception that these duties are a major source of irritation to nurses. Anecdotal evidence would suggest that nurses spend large amounts of time engaged in duties which are not directly concerned with nursing, e.g. catering, clerical, or portering tasks. The findings from this survey that a representative sample of nurses estimate that not much more than 50% of the working day is spent on nursing duties is therefore of special interest.

In the wider debate about staffing levels, levels of stress and professionalisation issues, these findings seem to suggest that one of the best means to manage nursing workload, (and therefore staffing levels) would be to reduce the proportion of time spent on non-nursing duties. In effect the impact of nurses could almost be doubled for the same levels of staff if these non-nursing duties were transferred to other ancillary staff. This would also have the effect of increasing the professional content of the job and thereby reducing the vocational elements of it and generally of improving the quality of health care capable of being offered by the nursing profession.

This issue of non-nursing duties is a complex one as is evident from other work carried out by the WRC. This work suggests that there is no standard allocation of non-nursing duties between hospitals and even within hospitals, where some non-nursing duties are routinely undertaken by nurses which are thought to be a natural part of the job, even within one ward or section of a hospital, whereas in others they are actively shunned by nurses. There is therefore nothing sacred about what constitutes non-nursing duties or otherwise.

These findings are of such significance that they warrant a recommendation and this is provided in the following chapter.

10. Assault

Perhaps the most striking findings from the entire survey concern levels of assault on nurses, with almost 40% of nurses reporting having been assaulted during their careers at some stage and that of those who were assaulted in the past year, they were assaulted on an average of approximately three times. Whereas it was always understood that certain areas of nursing were more prone to assault particularly from patients (e.g. geriatrics, mental handicap, accident and emergency), the extent and level of assault which takes place has probably been severely underestimated. Of particular concern is the existence of assault of nurses by nurses, even if it takes place at a relatively low frequency (about 2% of the sample were assaulted by fellow nurses in the past year). It is noteworthy that assaults from this source tend to be repeated - of those who were assaulted, assault occurred on average 2.5 times.

Perhaps even more damming than the fact that assault takes place is the finding that the levels of support available to those who have been assaulted are minimal. There is no evidence of systematic support being made available to nurses who have been assaulted, indeed quite the opposite. The finding that it is very rare for nurses to take time off as a result of assault only serves to support this conclusion.

The findings with regard to verbal assault are also of interest because they presumably refer to a range of different forms of verbal abuse which are perceived by the victim but perhaps not by the perpetrator and more serious verbal abuse being delivered from a range of sources. Almost 10% of nurses reported being verbally abused either 'often' or 'frequently' by fellow nurses. In effect, management style may well on some occasions constitute verbal abuse - it is noteworthy that one of the more powerful predictors of health and wellbeing and job satisfaction outcomes was the levels of stress due to conflict with fellow nurses. The existence of conflict with physicians may also constitute verbal abuse on occasion.

It would appear essential that this issue of assault is addressed immediately. In this context it is appropriate that two kinds of response are made. One concerns training on how to minimise potential assaults while a second concerns support structures in the workplace for those who have been assaulted. These findings are sufficiently significant to be the subject of a recommendation in the next chapter.

11. Communications

Though nursing is considered to be a profession in which communications skills are at a premium (at least with patients), there is much evidence from the survey that these putative communication skills are not applied to working relationships in nursing. The findings of high levels of stress coming from conflict with nurses, and its important role in generating stress related outcomes; the prevalence of the coping style of keeping problems to yourself, particularly in students; the finding that the third most common measure for reducing stress related to improved communications; and the findings concerning lack of management support all lend credence to this view.

Communications within any organisation can be viewed as the central process which must be managed successfully if the organisation is to succeed. Not alone do good communications ensure that the workforce is informed and has a sense of participation in the organisation, but the organisation becomes more flexible and responsive to the mission it follows, and to the changing environment within which it exists.

Against this background, it is apparent that there is a real need to improve communications processes within nursing. Particular attention should be paid to providing appropriate training for all grade levels within the profession, and to setting up appropriate structures to facilitate improved communications.

12. Working conditions

A number of issues emerged from the survey which indicate that there is considerable room for improvement in the working conditions of nurses. These concern reports of low pay being a considerable source of stress, lack of career development opportunities, access to further training and the effects which job tenure have on generating stress related outcomes.

These findings indicate a need for improvements particularly in the area of training and career development and in the provision of more secure job tenure for nurses. (The training issue is mentioned here again because there are working conditions implications as well as implications for professional development).
13. Conclusions

The key issues which have emerged from the survey strongly suggest that nursing is in a (perhaps unrecognised) state of crisis. The findings that students are among the most stressed, that training is not taken seriously, that professional development is lacking, that there are higher levels of assault than might have been presumed, that the occupational socialisation process of nursing is generally very negative, that inappropriate forms of shift-work are worked, that there are large numbers leaving the profession entirely and that many also leave for health reasons all combine to suggest that a state of crisis exists.

In some ways the issues raised by this survey are bigger than the issue of stress and should be addressed within the wider context of the nursing stakeholders (the INO, An Bord Altranais, the Department of Health, Health Boards, Hospital management). Nonetheless, these issues combine to influence the stress process as it currently exists within nursing. In sum they strongly indicate that stress levels are high within the profession, and that a comprehensive, integrated and sustained approach to the management of these issues is essential if the situation of nurses is not to deteriorate further. The recommendations outlined in the next Chapter constitute such an approach.

Chapter 9. Recommendations

In this Chapter the recommendations from the survey are presented. They are divided into two broad but overlapping areas - the policy level and the management level. Within these areas the recommendations provide a series of targeted action points which if implemented will set up structures which will enable stress to be managed effectively, and which will considerably reduce the currently high levels of stress in nursing.

1. Introduction

The findings from this comprehensive survey of stress are rich and in some ways complex. However, the principal findings and conclusions to be drawn from the survey are clear, and these form the basis for the recommendations outlined below.

The recommendations from the stress survey are targeted at two levels: the policy level and the management level which also incorporates the operational level. At the policy level, actions appropriate to bodies such as the INO, An Bord Altranais and the Department of Health are described. At the management level actions concerning the management of nursing within the major workplaces in which nurses work are outlined, with implications for the operational level actions which are appropriate for implementation at the level of the individual workplace, e.g. ward level, community clinics.

The recommendations have been informed by a number of considerations. The first is the philosophy that actions which are targeted at the structural levels and the individual are necessary if nursing stress is to be managed effectively. This is more than a philosophy - research has demonstrated clearly that actions directed solely at the individual are unlikely to be effective (this is typically the case with most stress management interventions).

It is also informed by the statutory position with regard to health and safety in the workplace - occupational stress is a recognised threat to health, and as such must be managed in the same manner as any of the traditional threats to health and safety, i.e. it must be monitored, and must be the subject of safety statements within nursing workplaces. It must be emphasised that this is not an optional course of action for employers, as many believe, but that it is required by law that stress be managed effectively.

While the recommendations have been targeted at different levels, no plan of implementation has been drawn up, as this is an activity more appropriate for the INO and employers of nurses. However, suggestions for an implementation plan are made, which the major stakeholders in the nursing workplace may care to act upon.

2. Policy recommendations

The following recommendations are directed at those who are responsible for making or influencing policy with regard to nursing. They would include the INO primarily and initially, as they have commissioned this survey, but would ultimately fall within the purview of the Department of Health, the hospitals (as employers) and An Bord Altranais. All of the policy recommendations outlined below are framed with the understanding that the
the first concerns the detailed training and professional development and within the areas of nursing for which they are responsible.

Specifically, awareness needs to be raised in two broad areas - the first concerns the detailed findings from this survey, which can act as an authoritative source of information for the generation of policy, the second concerns the responsibilities and obligations of the various policy making bodies. Policy makers and influencers should undertake these awareness raising activities.

2. It is recommended that a thorough review of the conditions under which entrants to the profession are trained is undertaken.

The clear and widespread evidence from the survey indicating that students are the group which are most under stress indicates the urgency of this task. This review should focus on two issues - the factors which are causing stress for students (in particular, difficulties of combining work and study, the transmission of a negative and authoritarian culture), and the appropriateness of the structure of pre-qualification training with regard to professional development. Though this latter focus is broader than the issue of nursing stress, the aspects of professional development which impinge on the stress process within nursing (in particular the widespread perception that nurses are professionally underdeveloped) make this a relevant focus within the context of the present report.

3. The role and function of post-qualification training needs to be reviewed.

There should be two aspects to this review - training and professional development and training and the provision of operational skills. As currently constituted, post-qualification training does not contribute significantly to professional development for the majority of nurses, thereby giving rise both to difficulties of performing the job and to stress and frustration for nurses in the long term. Specifically the issues of access to training, the funding of training, the range of training should be examined with a view to making training more equitable in its distribution, more widespread, and more integrated into both operation of the job and ongoing career development.

4. Health and safety committees should be explicitly encouraged.

Health and safety committees are the most appropriate vehicle for managing stress at the operational level within nursing workplaces. Unfortunately, the evidence from this survey strongly suggests that health and safety committees are not widespread nor active enough within the major nursing workplaces. Visible and concrete support to the diffusion and development of these committees is necessary if the recommendations from this survey are to be implemented.

More generally, in the light of the findings regarding health and wellbeing it is essential that a widely available and comprehensive occupational health service be set up.

5. Shiftwork patterns need to be redesigned.

The widespread prevalence of shiftwork patterns which have been demonstrated to be harmful to health and wellbeing is of major concern. (Specifically the 12 hour night shift for
10. A comprehensive and integrated plan for stress management in nursing needs to be developed.

In addressing these recommendations it is unlikely that a piecemeal approach to their implementation would be effective. A comprehensive and integrated plan, which outlines responsibilities, activities, schedules, resources and which includes a monitoring and evaluation component is necessary if stress management is to be effective. It is recommended that such a plan be generated by policy makers and influencers as a matter of urgency.

3. Operational recommendations

The recommendations outlined below are targeted at the operational level, and are appropriate for implementation by employers and management within the range of nursing workplaces.

1. Measures should be taken to improve the conditions for working and studying for students.

In order to reduce the stress on pre-qualification students, the following measures should be undertaken:

- Provide adequate study time.
- Reduce time spent on wards.
- Provide adequate study leave in advance of exams.
- Provide access to specialised support facilities for students. This could take the form of personal tutors for students and access to library facilities at times which reflect the fact that students work shifts.
- Provide better links between classroom based training and ward experience.
- Students should not be put in positions of responsibility which do not correspond to their levels of experience.

The above measures are by no means exhaustive, and should be supplemented according to the experience and circumstances of each hospital.

2. Facilities for post-qualification training need to be improved.

The findings from the survey indicate major problems with post-qualification training. Specifically problems exist on the one hand with nurses being under stress because of feeling inadequately prepared to do the job, while the issue of access to, recognition for, and integration of training into the job all give rise for concern. In addition the evidence would suggest that there is a lack of appropriate training for staff in managerial and educational positions. Against this background the following recommendations are made:

- Undertake a training needs analysis for each workplace
- Allocate appropriate resources for training indicated by the training needs analysis
- Increase availability of operational training for ward level staff
- Make available relief staff for those who are undergoing training
- Integrate training into ongoing work of staff
- Provide managerial training for those in management positions
- Only use qualified trainers

3. Health and safety committees

For reasons outlined above, the activities of health and safety committees are crucial to the success of implementing proposals for stress management. It is essential therefore, that:

- Health and safety committees are set up within each nursing workplace
- Nurses are elected on to them (this is a right under law)
- Access to appropriate training for health and safety representatives is supplied
- Detailed safety statements, which incorporate measures to manage stress in the workplace, are drawn up
- The implementation of measures to control workplace stress are supported by management
- The progress of stress management measures are monitored.

4. Shiftwork

The current design of shiftwork schedules should be re-examined. Particular reference should be paid to the following features of shift schedules in the redesign process, in addition to operational considerations:

- Length of night shifts;
- Number of consecutive night shifts;
- Number of weekends off;
- Direction of rotation of shifts;
- Amount of time off between shifts;
- Adequate notice of duty rosters (e.g. six months or more is common in industry)

with a view to maximising the benefits to the individual and minimising the hazards of shiftworking. In addition, the process of shiftwork redesign should be participative, with nurses having discretion over the final shiftwork design.

5. Assault

The findings from the survey regarding assault are particularly striking. It is recommended that procedures to provide meaningful support to nurses who have been physically or verbally assaulted (from whatever source) be immediately implemented. This may best be done through the appointment of a (number of) 'assault officers', who would have responsibility for counselling the victim.

In addition, training in methods of avoiding assault should be provided as part of basic nursing training. Training should also be provided to qualified nurses as part of a comprehensive programme to deal with the reduction of assault on nurses. Similar interventions should be made in the case of verbal assault.

Special attention should be paid to nurses working in the high risk areas for assault, i.e. geriatrics, mental handicap, psychiatric and accident and emergency, and for nurses working night duty.

It is of special importance that the process of dealing with assault in the workplace should operate on a 'no blame' basis, i.e. the victims of assault should not be discriminated against in any way.
6. Support at work

It is recommended that appropriate support structures are implemented in nursing workplaces. In particular, the support management provides to operational staff needs to be enhanced. The following measures may be appropriate for boosting support:

- Use of ward level meetings to provide support
- Provision of positive feedback about job performance
- Establishment of 'neutral' communication channels between management and staff, i.e. where negative reports are not assigned to individual nurses
- Establishment of a forum for dealing with stressful issues
- Provision of support to nurses in carrying out their operational duties
- Provision of adequate resources in terms of materials and staff

These measures should take place in addition to those outlined in the case of assault.

7. Non-nursing duties

It is recommended that an assessment of the range and extent of non-nursing duties be undertaken within each hospital (since these vary between hospitals). On the basis of the results of these assessments, it is recommended that non-nursing duties be assigned to appropriate ancillary staff (clerks, porters, catering staff) with the aim of ultimately reducing stress, but also of making better use of the professional resources of nurses.

8. Culture

It is recommended that a more open style of management be adopted, one which is characterised by support for the professional role, participation in decision making and improved communications in order to combat the negative impacts of the current authoritarian structures.

It is essential that measures such as these are taken against the background of the introduction of the nursing process, which essentially expects increased professionalism and the use of discretion by nurses. The transition from task-based to process-based nursing indicates the need for change in culture such as that described above. Above all, however, the effect of the current culture is to encourage uncertainty, fear, stress and ultimately to encourage people to leave the profession.

9. A plan for stress management

It is recommended that each nursing workplace should develop and implement a plan for stress management within the workplace. This plan should incorporate structural interventions (e.g. shiftwork design, improving communications) as well as individual interventions (e.g. training). The plan should be drawn up with the help of and be made available to all nurses within the workplace. It should work through the medium of health and safety committees and its implementation should be monitored and evaluated. The plan should take account of the principal sources of stress outlined in the next recommendation.

10. Managing specific sources of stress

The key sources of stress in terms of their impact on stress related outcomes concerned:

- Conflict with nurses
- Stress from the home-work interface
- Career development
- Stress from the nature of the job
- Nursing workload

These sources of stress should be focused on in any stress management plan drawn up by the major nursing workplaces.

Appropriate actions to deal with these sources of stress include the following (some of them are already the subject of more detailed recommendations above):

- Conflict with nurses. Depending upon the specific cause(s), interventions targeted at: improving communications, decreasing workload, improving resources, better job placement, team building, better operational training and providing a forum for social support can help to reduce stress from this source.

- Stress from the home-work interface. Two possible reasons are possible for this source - bringing stress home and home demands interfering with work. Given the changes in the nature of the Irish labour force (increasing percentage of women, married women, mothers in the labour force) it is appropriate for employers to make provisions for these changes. These can include: flexible work schedules, flexible use of time off, increased part-time working, job sharing and the provision of creches. With regard to carrying stress home, it is appropriate to take steps to manage these sources of stress at work.

- Career development. Appropriate interventions here concern modern performance appraisal techniques, development of career structures, provision of training, increases in responsibility within grade, transparent promotion procedures, job enrichment programmes and job rotation programmes.

- Stress from the nature of the job. Appropriate strategies here concern appropriate training for the demands of the job. In the case of nursing these include: dealing with death and dying, shiftwork, coping skills and communication skills.

- Nursing workload. Given the budgetary constraints operating within the health service the most efficient ways of using existing resources are likely to be more successful in managing stress. In essence this means redefining what is appropriate work for nurses to do - see recommendation on non-nursing duties above.
Chapter 1


Chapter 2


16. AJN survey shows a new RN shortage sprouting, rising acuity, falling enrollments are blamed. (1986). American Journal of Nursing 86, 961, 965. cited in Fimian [12 above].


Chapter 4


Chapter 5


Appendix 1

NURSE STRESS SURVEY

September/October 1992

WORK RESEARCH CENTRE
DUBLIN

Commissioned by: INO

(Please note return date: Monday 21st of September)
SECTION 1A. NURSE DEMOGRAPHY

This part of the questionnaire is designed to obtain some background information from you. It asks questions about your working and non-working background, and the replies you give will enable many important questions to be answered: e.g. what level of stress there is amongst different types of nurses, is age a factor? and so on.

Please answer ALL questions.

1. How old are you?
   - under 20
   - 20-29
   - 30-39
   - 40-49
   - 50-59
   - More Than 60 years

2. Are you?
   - Female
   - Male

3. Are you?
   - Single
   - Married
   - Widowed
   - Other

   (Please specify)

4. How many children do you have? (number of children)
   a. What age is your youngest child?
   b. What age is your oldest child?

5. Do you have any other dependents living with you e.g. elderly dependents?
   - Yes
   - No

6. State how many years nursing experience you have since your 1st registration?
   (to the nearest year)

7. Which of the following nursing registration(s) do you hold? (tick as many as are applicable)
   - General Nurse
   - Psychiatric Nurse
   - Midwife
   - Mental Health Nurse
   - Sick Childrens Nurse
   - Public Health Nurse
   - Nurse Tutor
   - Other (please specify)
8. **What is your present grade?** (tick one only)

- [ ] Student
- [ ] Staff Nurse
- [ ] Clinical Tutor
- [ ] Assistant Matron
- [ ] Senior Public Health Nurse
- [ ] Theatre Superintendent
- [ ] Night Sister
- [ ] Other
- [ ] Post Registration Student
- [ ] Ward Sister
- [ ] Midwife Tutor
- [ ] Matron/Director of Nursing
- [ ] Superintendent Public Health Nurse
- [ ] Theatre Sister
- [ ] Night Superintendent

(Please Specify) __________________________

9. **What area do you currently work in?** (tick one only)

- [ ] Medical
- [ ] Surgical
- [ ] Maternity
- [ ] Mental Health
- [ ] Paediatric
- [ ] Special care unit (ICU / CCU / NNU)
- [ ] Public Health nurse
- [ ] Geriatric
- [ ] Psychiatric
- [ ] Accident and Emergency
- [ ] Theatre
- [ ] Other

(Please Specify) __________________________

9a. **What is your present Job Title?** __________________________

9b. **How long have you worked in your present position?** (tick one only)

- [ ] Less than 1yr
- [ ] 1-2 years
- [ ] 2-3 years
- [ ] 3-5 years
- [ ] 5-10 years
- [ ] 11-20 years
- [ ] More than 20 years

10. **Is your job?** (tick one only)

- [ ] Full-time permanent
- [ ] Part-time permanent
- [ ] Job-sharing
- [ ] Other

(Please Specify) __________________________

11. **Have you been in continuous employment since qualifying?**

- [ ] Yes
- [ ] No

11a. Only answer the following questions if you have answered 'NO' to number 11.

a. **For which of the following reasons did you take a break from your career?**

- [ ] Career Break
- [ ] Family reasons
- [ ] To go abroad
- [ ] Due to unemployment
- [ ] Due to illness
- [ ] To further your education
- [ ] Other

(Please specify) __________________________

b. **Did you complete a back to nursing course before returning to work?**

- [ ] Yes
- [ ] No

FOR MANAGEMENT ONLY

13. **What is the absenteeism rate in your workplace?** (% per day)
SECTION 1B WORKING CONDITIONS

This section of the questionnaire is designed to find out about your conditions of work. Here we are interested in the numbers of hours you work, the kind of shift system (if any) you work and the way breaks at work and holidays are handled.

1. On average how many hours per week do you work?   

2. Do you OFFICIALLY work a?
   - 39 hour week  
   - 40 hour week  

2b. If you work a 40 hour week, do you get your 1 hour back? (tick one only)
   - on a weekly basis  
   - as accumulated time (eg. 4hrs at a time, 8 hrs at a time)  
   - at a time you choose  
   - at a time the hospital chooses  
   - you don’t seem to get it back at all

3. Which of the following contracts do you hold? (tick one only)
   - weekly  
   - monthly  
   - six monthly  
   - yearly  
   - no contract  
   - permanent  
   - Other (Please specify)  

4. Do you manage to take your allocated mealbreaks at the appointed times? (mealbreaks refers to all breaks eg. tea breaks, lunch breaks, dinner breaks)
   - Yes  
   - No  
   - Sometimes  

5. How often do you take your mealbreaks off the ward?
   - Never  
   - Rarely  
   - Sometimes  
   - Often  
   - Very Often  

6. How many uncertified sick days are you entitled to per annum?  

7. What facilities are available for you should you become ill on duty?  

8. Can you request your annual leave?  
   - Yes  
   - No  

8a. Have you ever had a problem obtaining your annual leave at the time you requested it?  
   - Yes  
   - No  
   - Sometimes  

9. Have you ever had a problem getting compassionate leave?  
   - Yes  
   - No  

10. How often have you experienced the following situations?
   - unscheduled shift changes
   - performing relief duties
   - going off duty late
   - never  
   - occasionally  
   - frequently

11. Have you the possibility of working a job-sharing arrangement?  
   - Yes  
   - No  

12. To what extent has the lack of possibility for job-sharing impacted on your family life?  
   - Not at all  
   - To some extent  
   - To a great extent  
   - Completely  
   - Not Applicable  

13. IF YOU HAVE CHILDREN, Have you easy access to child care arrangements?  
   - Yes  
   - No  

14. To what extent has absence of child care facilities hindered you in your career?
   - Not at all  
   - To some extent  
   - To a great extent  
   - Completely  
   - Not Applicable
15. How many hours per average day do you spend on NURSING tasks? 

16. How many hours per average day do you spend on each of the following NON-NURSING tasks?

<table>
<thead>
<tr>
<th>Domestic duties (eg collecting/giving out trays, making beds)</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Clerical duties (eg making appointments, form filling)</td>
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<tr>
<td>Portering duties (eg all escort duties)</td>
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<tr>
<td>Catering duties (eg taking of patients' menus, preparation of snacks)</td>
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<tr>
<td>Other non-nursing tasks</td>
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17a. To what extent would you say the nursing role involves the following aspects?

<table>
<thead>
<tr>
<th>Teaching</th>
<th>Not at all</th>
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<th>To a great extent</th>
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<td>Teamwork</td>
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<td>Professional development</td>
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<td>Counselling</td>
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<tr>
<td>Communication Skills</td>
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<td>Management Skills</td>
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</table>

17b. To what extent would you say the nursing role SHOULD involve the following aspects?

<table>
<thead>
<tr>
<th>Teaching</th>
<th>Not at all</th>
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<th>To a great extent</th>
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<tr>
<td>Communication Skills</td>
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<tr>
<td>Management Skills</td>
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SECTION 1C. SHIFTWORK

The following questions ask about your experience of SHIFTWORK. For the purposes of this study shiftwork has been defined as any work which takes place outside the hours of 8 am to 6 pm on a regular basis.

1. Do you work shiftwork?  Yes [ ]  No [ ]  (If NO, go to the Section on Occupational Health on p. 8)

2. Which of the following best describes your current work schedule?

| I work day shift only |   |   |   |
| I work late shift only |   |   |   |
| I work early shift only |   |   |   |
| I work night shift only |   |   |   |
| I rotate shifts: earlies/lates |   |   |   |
| I rotate shifts: earlies/nights |   |   |   |
| I rotate shifts: lates/nights |   |   |   |
| I rotate shifts: earlies and lates interspersed with nights |   |   |   |
| I rotate shifts: earlies and lates/block of nights |   |   |   |
| Other |   |   |   |

(Please specify)

3. When you work day shifts.

a. What is the length of your longest day shift?  12 hour [ ]  10 hour [ ]  8 hour [ ]  other [ ]

b. On average, how many day shifts do you work per week? (NB. calculate a split shift as 2 shifts)  [ ]

4. How many nights have you worked in the last 6 months?  [ ]

5. What is the duration of your typical night duty?

<table>
<thead>
<tr>
<th>12 hour</th>
<th>10 hour</th>
<th>8 hour</th>
<th>other</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
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</tbody>
</table>

(Please specify)
6. When you work night shifts, what is the maximum number of nights you have to work consecutively?

7. If you had a choice, which would you prefer?

- Earlies
- Lates
- Nights
- Rotating shifts
- No Preference

8. To what extent does working shifts adversely affect the following aspects of your life?

- Sleep
- Eating patterns
- Social life
- Family life
- Physical health
- Mental Wellbeing
- Performance at work

- Not at all
- To some extent
- A lot

9. Do you usually work split shifts?

- Yes
- No

10. How much advance notice do you get of your duty roster? ___ (Days)

SECTION 1D. OCCUPATIONAL HEALTH

In this section we are interested in the development of occupational health services in your workplace.

1. Does your workplace provide an occupational health service on site which has a qualified doctor? Yes ___ No ___ Don’t know ___
   Nursing staff? Yes ___ No ___ Don’t know ___

2. Do you have a health and safety committee? (or equivalent)
   Yes ___ No ___ Don’t know ___

3. Who is represented on this committee? (please tick)

   - NO rep (specify)
   - Management
   - Other Unions
   - Occupational Health Staff
   - Other (please specify)

   Nurses ___ Doctors ___ Other Professionals ___ Porters ___

4. Does your workplace have a safety statement?
   Yes ___ No ___ Don’t know ___

5. Does your workplace have an explicit or written health policy? (We are not referring to a safety policy alone here)
   Yes ___ No ___ Don’t know ___

6. Does your workplace have a policy on sexual harassment?
   Yes ___ No ___ Don’t know ___

7. Do you know who your Health and Safety Representative is?
   Yes ___ No ___
**SECTION 2A. HOSPITAL DEMOGRAPHY**

This section is only applicable to nurses working in hospitals. If you don't, please move on to the following sections. Section 2 is designed to obtain information about your workplace. The information gathered will help us assess whether these factors contribute to stress.

Please complete ALL questions.

1. **How many beds are there in your hospital?** □ □

2. **Is the hospital in which you work?**
   - Privately run □
   - A voluntary hospital □
   - Health Board Hospital □
   - Other □
   (Specify) □ □

3. **Is there a training school affiliated to the hospital in which you work?**
   - Yes □
   - No □

4. **How many nurses are there working in your hospital?**
   - Students □
   - Registered nurses □

5. **How many nurses are ALLOCATED to your ward?**
   - Students □
   - Registered nurses □

6. **How many beds are permanently on your ward?** □ □

7. **How many days in the last month have you had extra beds on your ward?** □ □

8. **On a typical day how many extra beds are put up on your ward?** □ □

9. **Over the last 3 years has the patient turnover increased?**
   - Greatly □
   - Somewhat □
   - Not at all □
   - Don't know □

10. **How many staff have left your ward in the last three years?** □ □

10A **Do you know if they left for any of the following reasons?** (Tick as many as are applicable)
   - To take up a nursing position in another country □ □
   - Because of a promotion □ □
   - To retire □ □
   - To take up a nursing position in another hospital □ □
   - To take up a nursing position in another unit □ □
   - To go on a career break □ □
   - To give up nursing permanently □ □
   - For health reasons □ □
   - Don't know □ □
   - Other (please specify) □ □
SECTION 2B WORKPLACE DEMOGRAPHY - TUTORS

This section is only applicable to Tutors. If not applicable, please move on to Section 3.

1. How many students do you have? 

2. Are you a clinical or classroom based tutor? 

3. How many tutors are there in your hospital? 

4. How many hours per day do you teach? 

5. Do you have any other duties besides teaching? 
   Yes  No 

5a. If so, what are these? 

6. Over the last 3 years has the ratio of students to tutors increased? 
   Greatly  Somewhat  Not at all  Don't know 

7. How many tutors have left your area in the last three years? 

8. Do you know if they left for any of the following reasons? (tick as many as are applicable) 
   to take up a nursing position in another country 
   because of a promotion 
   to retire 
   to take up a nursing position in another hospital 
   to take up a nursing position in another unit 
   to go on a career break 

9. Have you any teaching qualifications? 
   Yes  No 

10. Is the level of clerical support in your school? 
    Very good  Good  O.K.  Bad  Very Bad. 

11. During duty hours, is the time assigned for preparation adequate? 
    Yes  No 

11a. If No, what is the average number of hours spent preparing classes outside duty hours? 

12. During duty hours is the time assigned for correcting written work adequate? 
    Yes  No 

12a. If no, what is the average number of hours per week spent correcting written work outside duty hours? 

13. Who is responsible for allocation of students in the clinical area? 
   School  Other 
   (Please specify) __________________________
5. How many PHNs have left your area in the last three years?

6. Do you know if they left for any of the following reasons? (tick as many as are applicable)
   - to take up a nursing position in another country
   - because of a promotion
   - to retire
   - to take up a nursing position in another hospital

13. Please rate how frequently each of these sources of stress occur in your job by placing a tick in the most appropriate box beside each item. If a source of stress does not apply tick ‘never’. Please complete all questions.

<table>
<thead>
<tr>
<th>Source of Stress</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Social problems</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2. Lack of interdisciplinary communication</td>
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<tr>
<td>3. Inadequate staff relief</td>
<td></td>
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<tr>
<td>4. Problem families</td>
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<tr>
<td>5. Role ambiguity</td>
<td></td>
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<tr>
<td>6. Inadequate working facilities</td>
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<tr>
<td>7. Demands for care which cannot be met</td>
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<tr>
<td>8. Families who abrogate responsibilities</td>
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<tr>
<td>9. Dealing with queries from the public</td>
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<tr>
<td>10. Clients who don’t follow through the public</td>
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</tbody>
</table>

14. How much support do you receive from the following sources?

<table>
<thead>
<tr>
<th>Source of Support</th>
<th>None</th>
<th>Some</th>
<th>A lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colleagues (PHN’s)</td>
<td></td>
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<td></td>
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<tr>
<td>GPs</td>
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<tr>
<td>Home Help Organizers</td>
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<td></td>
<td></td>
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<tr>
<td>Social workers</td>
<td></td>
<td></td>
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<tr>
<td>Community welfare officers</td>
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<td></td>
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</tbody>
</table>
SECTION 3A. SOURCES OF STRESS

In this section stress arising from three areas are examined: generic sources of stress (i.e. stress that can arise from any job), nursing specific sources of stress (stresses peculiar to nursing) and life events (stress arising from major events inside or outside of the workplace). Question 1 is applicable to all respondents but particularly appropriate to managers. Question 2 covers sources of stress arising from a number of nursing workplaces. Please answer any question not relevant to you by ticking the "Not Applicable" box.

1. Please rate how frequently each of these SOURCES OF STRESS occur in your job by placing a tick in the most appropriate box beside each item. If a source of stress does not apply please tick 'never'. Please complete ALL questions.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Having too much work to do</td>
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<tr>
<td>2. Having too little work to do</td>
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<tr>
<td>3. Equipment</td>
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<tr>
<td>4. Monotonous / Repetitive work</td>
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<tr>
<td>5. Relationships with supervisor</td>
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<tr>
<td>6. Relationships with peers</td>
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<tr>
<td>7. Relationships with patients</td>
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<tr>
<td>8. Relationships with visitors</td>
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<tr>
<td>9. Lack of career prospects</td>
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<tr>
<td>10. Rules and regulations</td>
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<tr>
<td>11. Managing or supervising other people</td>
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<tr>
<td>12. The way change is managed at work</td>
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<tr>
<td>13. Lack of consultation and communication</td>
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<td>14. Not being able to &quot;switch off&quot; at home</td>
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<tr>
<td>15. Inadequate or poor quality of training</td>
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<td>16. Conflicting job tasks and demands in the role I play</td>
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<tr>
<td>17. Being undervalued</td>
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</table>

2. These questions relate to potential sources of pressure in nursing. Please rate how often they occur for you. Some questions might appear to apportion blame for certain situations. This is not intended - we are interested in how often situations occur, not in how they arose. Please answer by placing a tick in the most appropriate box beside each statement.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Very Frequently</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Working with staff who interfere in the care you are giving</td>
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<tr>
<td>2. Lack of team work between staff</td>
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<tr>
<td>3. Looking after patients who are in a critical and unstable condition</td>
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</tr>
<tr>
<td></td>
<td>Never</td>
<td>Occasionally</td>
<td>Frequently</td>
<td>Very Frequently</td>
<td>N/A</td>
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<tr>
<td>4.</td>
<td>Being asked a question by a patient for which I do not have a satisfactory answer</td>
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<tr>
<td>5.</td>
<td>Nursing elderly patients</td>
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<tr>
<td>6.</td>
<td>Criticism by a physician</td>
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<td>7.</td>
<td>Performing procedures that patients experience as painful</td>
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<tr>
<td>8.</td>
<td>Feeling helpless in the case of a patient who fails to improve</td>
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<tr>
<td>9.</td>
<td>Working with staff who are not 'pulling their weight'</td>
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<tr>
<td>10.</td>
<td>Dealing with unexpected admissions</td>
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<tr>
<td>11.</td>
<td>Lack of opportunity to talk openly with unit personnel about problems on the unit</td>
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<tr>
<td>12.</td>
<td>Working with staff who do not value the contribution you make</td>
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<tr>
<td>13.</td>
<td>The death of a patient</td>
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<tr>
<td>14.</td>
<td>Conflict with a physician</td>
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<tr>
<td>15.</td>
<td>Fear of making a mistake in treating a patient</td>
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<tr>
<td>16.</td>
<td>Lack of opportunity to share experiences/feelings with other personnel on the unit</td>
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<tr>
<td>17.</td>
<td>Lack of involvement in policy making and decision making</td>
<td></td>
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<tr>
<td>18.</td>
<td>The death of a patient with whom you developed a close relationship</td>
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<tr>
<td>19.</td>
<td>Not enough time to provide emotional support to a patient</td>
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<tr>
<td>20.</td>
<td>Difficulty in working with a particular nurse (or nurses) on the unit</td>
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<tr>
<td>21.</td>
<td>Disagreement concerning the treatment of a patient</td>
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<tr>
<td>22.</td>
<td>Feeling inadequately prepared to help with the emotional needs of a patient's family</td>
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<tr>
<td>23.</td>
<td>Lack of opportunity to express to other personnel on the unit my negative feelings towards patients</td>
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</tbody>
</table>

24. Inadequate information from a physician regarding the medical condition of a patient

25. Breakdown of the computer

26. Dealing with demanding, difficult or uncooperative patients

27. Making a decision concerning a patient when the physician is unavailable

28. Floating to other units that are short-staffed

29. Working with staff who do not accept responsibility for what they have done

30. Watching a patient suffer

31. Dealing with doctors who do not appear to understand the social or emotional needs of patients

32. Difficulty in working with a particular nurse (or nurses) outside the unit

33. Feeling inadequately prepared to help with the emotional needs of a patient

34. Criticism by a supervisor

35. Being required to use new technology

36. Trying to meet the expectations of other staff

37. Unpredictable staffing and scheduling

38. A physician ordering what appears to be inappropriate treatment for a patient

39. Dealing with emergencies which threaten the lives of patients

40. Too many non-nursing tasks required, such as clerical work

41. Not enough time to complete all of my nursing tasks

42. A physician not being present in a medical emergency
3. What, for you, are the three MOST IMPORTANT sources of stress in nursing?

a. 

b. 

c. 

4. What, in your opinion, are the THREE MOST IMPORTANT MEASURES that could be taken to reduce stress amongst nurses?

a. 

b. 

c. 

5. Assuming the availability of another job, HOW LIKELY would you be to give up nursing?

<table>
<thead>
<tr>
<th>Not very likely</th>
<th>Not likely</th>
<th>Not sure</th>
<th>Quite likely</th>
<th>Very likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
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</tbody>
</table>

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43. Not knowing what a patient/patient's family ought to be told about the patient's medical condition and his/her treatment

44. Uncertainty regarding the operation and functioning of specialized equipment

45. Not enough staff to adequately cover the unit

46. Difficulties in keeping up to date with theoretical knowledge

47. Nursing patients whose medical-surgical problems stem from social conditions

48. Listening or talking to a patient about his/her approaching death

49. Physician not being present when a patient dies

50. Access to management

51. Language difficulties with other staff

52. Treatment by other staff when you were pregnant

53. Your taking sick leave

54. Incorrect prescription of drugs

55. Difficulties supervising students

56. Absenteeism

57. Lack of time for exam preparation

58. Working and studying

59. Responsibilities on the ward
### SECTION 3B. PHYSICAL WORK ENVIRONMENT

6. How frequently do the following aspects of your physical work environment cause you stress in your present job?

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Frequently</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excessive heat</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Excessive cold</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>Damp</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Bad lighting</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Dirty conditions</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Inadequate Buildings</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Overcrowding</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Excessive cold</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Damp</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Bad lighting</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Dirty conditions</td>
<td>☐</td>
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<tr>
<td>Inadequate Buildings</td>
<td>☐</td>
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<tr>
<td>Overcrowding</td>
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<td>☐</td>
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<tr>
<td>Poor Ventilation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Bad Maintenance</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Radiation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Electricity</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Cytotoxic Substances</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Blood and Body Fluids</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Lifting patients</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>VDU's</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Equipment</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Chemicals</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Infections agents</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Physical threats</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Noise</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Lack of space</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

### SECTION 3C. ASSAULT

This section of the questionnaire asks you about your experience of assault in the workplace. In question 7 we are interested in physical assault, regardless of whether it was intended or not, while in question 8 we are interested in verbal assault.

1.a Have you ever been assaulted by any of the following people? If your answer is YES to any of them, please enter how many times you were assaulted during the last year?

<table>
<thead>
<tr>
<th>Person</th>
<th>Yes</th>
<th>No</th>
<th>IF YES how many times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Visitor</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Intruder</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Nurse colleague</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other hospital colleague</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

1.b In relation to your last assault, how would you describe the injuries you sustained?

<table>
<thead>
<tr>
<th>Injury</th>
<th>None</th>
<th>Minor</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bruising</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Bite wounds</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Lacerations</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Emotional Distress</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

1.c How much time if any, did you need to take off following the assault?

<table>
<thead>
<tr>
<th>Time</th>
<th>☐</th>
<th>☐</th>
<th>☐</th>
<th>☐</th>
<th>☐</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>1-3 days</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4-6 days</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6-10 days</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>more than 10 days</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
2. How often over the last year have you been subjected to VERBAL ABUSE from the following sources?

<table>
<thead>
<tr>
<th>Source</th>
<th>Never</th>
<th>Seldom</th>
<th>Often</th>
<th>Regularly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing colleagues</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doctors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patients' relatives</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ancillary staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Following your last incident of abuse (physical or verbal) how much support did you receive from the following sources? (please tick one box per question)

<table>
<thead>
<tr>
<th>Source</th>
<th>None</th>
<th>Some</th>
<th>A lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing Administration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse Colleagues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other hospital staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spouse/partner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other friends outside of nursing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INO</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 3D. YOUR NON-WORK EXPERIENCES

This section of the questionnaire asks about the kinds of stress that you have experienced outside of work in the recent past. Its purpose is to help assess the stress load you are under. Please indicate any major events you have experienced outside of work during the PAST YEAR. (We do not need information on events which have occurred more than one year ago). Think carefully about the events such as births, deaths, marriages, illnesses, major changes in relationships, legal difficulties, financial problems etc. or any event which has involved change or stress for you. If the list of events below misses out on important events, there is space at the end of the list for you to add in these events.

INSTRUCTIONS: If any of these events have occurred to you in THE PAST YEAR, please place a tick in the box marked "Yes" Column.

Did it happen?

<table>
<thead>
<tr>
<th>Type of event</th>
<th>Yes</th>
<th>Type of event</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Marriage</td>
<td></td>
<td>- New job</td>
<td></td>
</tr>
<tr>
<td>- Death of partner</td>
<td></td>
<td>- Serious illness/injury to close family member</td>
<td></td>
</tr>
<tr>
<td>- Major change in sleeping habits</td>
<td></td>
<td>- Trouble with employer (eg danger of job loss, suspension)</td>
<td></td>
</tr>
<tr>
<td>- Death of a close family member</td>
<td></td>
<td>- Trouble with in-laws</td>
<td></td>
</tr>
<tr>
<td>- Major change in eating habits</td>
<td></td>
<td>- Big change in financial state (a lot better/worse off)</td>
<td></td>
</tr>
<tr>
<td>- Demand for full payment of a mortgage or loan</td>
<td></td>
<td>- Major change in closeness of family (increase or decrease)</td>
<td></td>
</tr>
<tr>
<td>- Death of a close friend</td>
<td></td>
<td>- Gaining a new family member (eg birth, adoption, family moving in)</td>
<td></td>
</tr>
<tr>
<td>- Outstanding achievement</td>
<td></td>
<td>- Change of residence</td>
<td></td>
</tr>
<tr>
<td>- Minor law breaking (eg driving offence, disturbing the peace)</td>
<td></td>
<td>- Separation from partner due to conflict</td>
<td></td>
</tr>
<tr>
<td>- Pregnancy or partner's pregnancy</td>
<td></td>
<td>- Major change in church activities (increase or decrease)</td>
<td></td>
</tr>
<tr>
<td>- Changed work situation (different responsibilities, major change in working conditions etc.)</td>
<td></td>
<td>- Reconciliation with partner</td>
<td></td>
</tr>
<tr>
<td>- Major change in number of arguments with partner (increase or decrease)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Change in partner's work outside home (eg starting or ceasing work, new job)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Major change in usual type or amount of recreation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Borrowing more than 10,000 pounds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Borrowing less than 10,000 pounds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Being fired from job</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Major personal illness/injury</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Major change in social activities (eg parties, visiting, increase or decrease)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Major change in family living conditions (building new home, renovations, deterioration of home or neighbourhood)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Others (please specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. What Percentage of the Total Stress in your life do you think comes from YOUR JOB?

<table>
<thead>
<tr>
<th>Percentage</th>
<th>0</th>
<th>10</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>70</th>
<th>80</th>
<th>90</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION 4. OUTCOMES OF STRESS

This section of the questionnaire asks about your general health and wellbeing. It is concerned with the effects that stress may have. Please answer ALL questions.

A. PHYSICAL HEALTH

1. In general, how would you describe your health?
   - Excellent [ ]
   - Good [ ]
   - Fair [ ]
   - Poor [ ]

2. How many days were you absent from work during the last year? [ ]

3. During the past 6 months, have you been hospitalized for any reason?
   - Yes [ ]
   - No [ ] (If no, go to SECTION B)
     
     a. How many times? [ ]
     b. For a total of how long? [ ] Days
     c. Why were you hospitalized? 

B. PHYSICAL SYMPTOMS

The following questions concern physical SYMPTOMS. Answer each question by ticking a box to indicate how often you have experienced each of the following symptoms WITHIN THE PAST MONTH. Please note that we are interested in ANY experience of the symptoms that you may have had, whether you usually experience them or not.

<table>
<thead>
<tr>
<th>SYMPTOM</th>
<th>Never</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Constantly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swollen or painful muscles and joints</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Back pain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain or stiffness in your arms or legs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tearing or itching of eyes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Persistent numbness or tingling in any part of your body</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ringing or buzzing in ears</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severe headaches</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fainting spells or dizziness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nervous or shaking inside</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Times when you feel sweaty or trembly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased urination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Painful urination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'Racing' or pounding heart</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leg cramps</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Periods of severe fatigue or exhaustion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acid indigestion, heartburn or acid stomach</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diarrhoea for more than a few days</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wind or wind pains</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nausea or vomiting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constipation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tight feeling in stomach</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bloated or full feeling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling of pressure in the neck</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haemorrhoids or piles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trouble digesting food</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blurred vision</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. Describe how you feel at the end of your period. (Check all that apply)

- Same as other times
- Tense, nervous
- Angry
- Weak, sick
- Hot and cold flushes before periods
- No longer have periods

5. Do you suffer from pre-menstrual tension?

Not at all
Sometimes
Often
Always

6. How severe are the symptoms of PMT for you?

Don't suffer
Minor
Major
Disabling

C. HEALTH RELATED BEHAVIOIRS

This section of the questionnaire asks about your health habits and the ways in which you typically cope with stress. Your answers to these questions will help assess the impact that stress has on people.

SMOKING:

1. Do you smoke? Yes No (If No, go to Section on Beverage Consumption)

<table>
<thead>
<tr>
<th>Cigarettes</th>
<th>Yes</th>
<th>No</th>
<th>Number Per Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigars</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pipe</td>
<td></td>
<td></td>
<td>Ozs. Per Week</td>
</tr>
</tbody>
</table>

2. Do you smoke more when you are under stress?

Never
Rarely
Sometimes
Frequently
YOUR BEVERAGE CONSUMPTION
1. On an average day, how many of each of the following do you usually drink? (ONE MUG is the equivalent of 2 CUPS)
   - Cups of tea
   - Cups of coffee
   - Cans/bottles of coke

EXERCISE
1. Do you take exercise?  Yes ☐  No ☐  (If No, go to Section on Drinking Patterns)
2. Do you exercise?  Every Day ☐  Every Few Days ☐  Once a Week ☐  Less Often ☐
3. Name your most frequent type of exercise
4. How often do you exercise as a means of coping with stress?
   - Never ☐  Rarely ☐  Sometimes ☐  Frequently ☐

YOUR DRINKING PATTERN
1. Do you ever drink alcoholic beverages, i.e. beer, wine or spirits?  Yes ☐  No ☐  (If No, go to Section on Sleep)
2. On average, how many days per week do you drink alcoholic beverages? ☐
3. On those days when you drink, what is the maximum number of the following that you drink?
   a. Pints of beer ☐
   b. Glasses of wine ☐
   c. Half glasses of spirits ☐
4. How many drinks per week do you drink?
   a. Pints of beer ☐
   b. Glasses of wine ☐
   c. Half glasses of spirits ☐
5. Do you now drink more or less than you did 12 months ago?
   - More ☐  Less ☐  Same ☐
6. Do you ever drink more when you are under stress?
   - Never ☐  Rarely ☐  Sometimes ☐  Frequently ☐

SLEEP:
1. How well do you normally sleep at night?
   - Very badly ☐  Badly ☐  OK ☐  Well ☐  Very well ☐
2. Do you often have difficulty in getting to sleep?  Yes ☐  No ☐
3. Do you often have difficulty staying asleep once you get to sleep? ☐
4. Do you often get up feeling your sleep hasn't refreshed you? ☐

D. WELLBEING

The following questions are concerned with THE WAY YOU GENERALLY FEEL OR ACT. Please circle the answer that applies to you (one per question). Don't spend long on any one question.

- Do you often feel upset for no obvious reason?  Yes ☐  No ☐
- Have you felt as though you might faint?  Frequently ☐  Occasionally ☐  Never ☐
- Do you feel uneasy and restless?  Frequently ☐  Sometimes ☐  Never ☐
- Do you sometimes feel really panicky?  No ☐  Yes ☐
- Would you say you were a worrying person?  Very ☐  Fairly ☐  Not At All ☐
- Do you often feel 'strung up' inside?  Yes ☐  No ☐
- Have you ever had the feeling you were "going to pieces"?  Yes ☐  No ☐
- Do you have bad dreams which upset you when you wake up?  Never ☐  Sometimes ☐  Frequently ☐
- Are you troubled by dizziness or shortness of breath?  Never ☐  Often ☐  Sometimes ☐
- Do you often feel sick or have indigestion?  Rarely ☐  Frequently ☐  Never ☐
- Do you sometimes feel tingling or prickling sensations in your body, arms or legs?  Rarely ☐  Frequently ☐  Never ☐
- Has your sexual interest altered?  Less ☐  The Same ☐  Greater ☐

You have now completed the questionnaire.
E. PSYCHOLOGICAL WELLBEING

We would like to know how your GENERAL HEALTH has been in the PAST FEW WEEKS. Please circle the response that best describes how you have recently been feeling in relation to each of the questions asked:

HAVE YOU RECENTLY:

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Been able to concentrate on what you're doing?</td>
<td>Better than usual, same as usual, less than usual, much less than usual</td>
</tr>
<tr>
<td>Lost much sleep over worry?</td>
<td>Not at all, no more than usual, rather more than usual, much more than usual</td>
</tr>
<tr>
<td>Felt that you are playing a useful part in things?</td>
<td>More so than usual, same as usual, less useful than usual, much less than usual</td>
</tr>
<tr>
<td>Felt capable of making decisions about things?</td>
<td>More so than usual, same as usual, less than usual, much less than usual</td>
</tr>
<tr>
<td>Felt constantly under strain?</td>
<td>Not at all, no more than usual, rather more than usual, much more than usual</td>
</tr>
<tr>
<td>Felt that you couldn't overcome your difficulties?</td>
<td>Not at all, no more than usual, rather more than usual, much more than usual</td>
</tr>
<tr>
<td>Felt able to enjoy your day to day activities?</td>
<td>More so than usual, same as usual, less so than usual, much less than usual</td>
</tr>
<tr>
<td>Been able to face up to your problems?</td>
<td>More so than usual, same as usual, less so than usual, much less than usual</td>
</tr>
<tr>
<td>Been feeling unhappy and depressed?</td>
<td>Not at all, no more than usual, rather more than usual, much more than usual</td>
</tr>
<tr>
<td>Been losing confidence in yourself?</td>
<td>Not at all, no more than usual, rather more than usual, much more than usual</td>
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<tr>
<td>Been thinking of yourself as a worthless person?</td>
<td>Not at all, no more than usual, rather more than usual, much more than usual</td>
</tr>
<tr>
<td>Been feeling reasonably happy, all things considered?</td>
<td>More than usual, about the same as usual, less so than usual, much less than usual</td>
</tr>
</tbody>
</table>

E. JOB SATISFACTION

The next set of items deals with various aspects of your job. We would like you to tell us how SATISFIED OR DISSATISFIED you feel with each of these features of your present job AT THE MOMENT. Just indicate how satisfied or dissatisfied you are with it by using the scale. Please tick one box per item.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Satisfied</th>
<th>A little Satisfied</th>
<th>Not sure</th>
<th>A little Dissatisfied</th>
<th>Dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The physical work conditions</td>
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<tr>
<td>2. The freedom to choose your own method of working</td>
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<td>3. Your fellow workers</td>
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<td>4. The recognition you get for good work</td>
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<td>5. Your immediate boss</td>
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<td>6. The amount of responsibility you are given</td>
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<td>7. Your rate of pay</td>
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<td>8. The opportunity to use your abilities</td>
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<td>9. Industrial relations between management and workers</td>
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<td>10. Your chance of promotion</td>
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<td>11. The way your organisation is managed</td>
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<td>12. The attention paid to suggestions you make</td>
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<td>13. Your hours of work</td>
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<td>14. The amount of variety in your job</td>
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<tr>
<td>15. Your job security</td>
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<tr>
<td>16. The amount of challenge in your job</td>
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<tr>
<td>17. Taking everything into consideration, how do you feel about your job as a whole?</td>
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</tbody>
</table>

32 33
SECTION 5. COPING STRATEGIES

This section of the questionnaire asks you about your relationships with others, both inside and outside of the workplace. The answers you give will help in assessing the kinds of support available to you from others. By support we mean having people to provide you with information, people who can give you practical help, people whom you can turn to when you are under stress.

1. How much support do you generally receive from the following sources? Please tick one box per question.

<table>
<thead>
<tr>
<th>Source</th>
<th>None</th>
<th>Some</th>
<th>A Lot</th>
<th>No such Person(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your spouse or partner</td>
<td></td>
<td></td>
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<tr>
<td>Relatives and other friends</td>
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<tr>
<td>Your neighbours</td>
<td></td>
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<tr>
<td>Your supervisor</td>
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<tr>
<td>Your nurse colleagues</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your workplace management</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Other staff in your workplace</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

2. In general, how ADEQUATE is the AMOUNT of support you receive?

<table>
<thead>
<tr>
<th>Adequacy</th>
<th>Not at all adequate</th>
<th>Neither adequate nor inadequate</th>
<th>Very adequate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

3. General behaviour: (please tick one answer per question)

a. Are you a very competitive person? Yes [ ] No [ ]
b. Are you a very aggressive person? Yes [ ] No [ ]
c. Are you very involved in your job? Yes [ ] No [ ]
24. Drink more tea or coffee

25. Try to prevent difficult situations from arising

26. Decide to go out with family or friends and enjoy yourself, forgetting about work problems for a time

27. Face the situation knowing that your family, friends or husband/wife will give you help and a sense of proportion to the problem

28. Help each other to work as a team

29. Try to recognise that there are some things you can change and some you can't

30. Take your frustrations out on the patients

31. Ensure your knowledge of equipment and drug regimes is up to date

32. Just have a good cry

33. Cheer yourself up by thinking of your days off

34. Attend to important matters first - set priorities

35. Look for faults in others

36. Try to reassure yourself that everything is going to work out alright

37. Try to thing objectively about the situation and keep your feelings under control

38. Simply avoid other staff members

39. Attend staff meetings

40. Take a day off

41. Count to 10

42. Talk the problem over with nursing colleagues

43. See the humour of the situation

44. Meditate or use a relaxation technique

45. Go away by yourself for a while

46. Eat more

47. Be as organised as possible

48. Throw yourself into work and work longer and harder

49. Do as much as you can to improve your technical and clinical skills

50. Simple take one thing at a time

51. Exercise regularly

52. Talk about normal healthy people

53. Express your irritation and frustration to yourself - swearing, slamming things down

54. Reconsider how involved you are at work

55. When necessary ask for assistance

56. Don't let things get to you - refuse to think about it too much

57. Recognize all the negative consequences so that you are prepared for the worst

58. Try and get advice and suggestions from other more experienced staff

59. Accept all of it as being part of life

60. Get reassurance from other nurses that they are feeling the same way

61. Try and make the atmosphere bright, calm and relaxed

62. Become all self-righteous

63. Get mad at yourself and tell yourself that you could have avoided the situation

64. Make a concerted effort to distract yourself with some fun or pleasurable activity

65. Just accept that it is another job and just do it

66. Consciously force yourself to slow down and take a longer view of things

SECTION 6. TRAINING

1. How many days in-service training (i.e. provided by the hospital) did you receive last year? (Including updates, day seminars etc.)

2. What topics were covered during these courses?

   Training to use new equipment

   Updating knowledge in specialised area

   Management training

   Other (please specify)
3. Were the courses provided by?
   - External consultants [ ]
   - Hospital [ ]

4. How many external courses have you completed since you qualified? [ ]

5. Did you receive financial assistance for attending any of these courses?
   - None of the time [ ]
   - Some of the time [ ]
   - All of the time [ ]

6. How much time were you allowed off for study? [ ]

7. Were you allowed time off for exams?
   - Yes [ ]
   - No [ ]
   - Sometimes [ ]

8. Are you encouraged to enhance your education?
   - Yes [ ]
   - No [ ]
   - Sometimes [ ]

9. Is it difficult for you to gain access to training?
   - Yes [ ]
   - No [ ]
   - Sometimes [ ]

10. Do any of the following reasons best describe why it is difficult for you to further your training? (you can tick more than one)
    - can't get time off to study [ ]
    - family commitments [ ]
    - no funding [ ]
    - no reward/incentive [ ]
    - working shifts [ ]

11. Have you ever received any financial rewards in lieu of training you have completed?
    - Yes [ ]
    - No [ ]
    - Sometimes [ ]

12. Have you received any recognition for training you have completed i.e. promotion?
    - Yes [ ]
    - No [ ]
    - Sometimes [ ]

13. Have you ever used the results of your training in your job?
    - Yes [ ]
    - No [ ]
    - Sometimes [ ]

14. Are relief staff arranged during training?
    - Yes [ ]
    - No [ ]
    - Sometimes [ ]

15. How many days training are you entitled to? [ ]
SECTION 7. YOUR COMMENTS

You may use this final section of the questionnaire to write any comments you may have about the questionnaire, about stress, or about any other aspect of the survey.

_________________________________________________

_________________________________________________

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_________________________________________________

Thank you for completing the questionnaire and for giving us your time. The information you provided will be valuable in assessing the levels of stress amongst nurses.