THE INCIDENCE OF BURNOUT IN HEALTH CARE PROFESSIONALS WORKING IN PRETORIA ONCOLOGY CENTRES.

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ABSTRACT

Background: Burnout is a syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment that may occur amongst individuals who work primarily with people. Nurses and doctors working in oncology must care for many critically ill and dying patients. Pretoria is a city with a high concentration of oncology institutions. The aim of this research is to evaluate the incidence of burnout amongst health care professionals in Pretoria oncology centres, to assess whether certain variables have an influence on the levels of burnout and to compare the situation in Pretoria to the rest of the world.

Methods: A questionnaire was distributed to all health care professionals working in oncology centres in Pretoria. The questionnaire consisted of an informed consent, demographic data and the Maslach Burnout Inventory. The participants included doctors, nursing staff, radiographers and social workers in both state and private health care institutes, involving radiotherapy, chemotherapy and palliative care units. 240 questionnaires were distributed and 156 were returned.

Results: Results show that 24.65% - 32.87% of participants experienced a high degree of burnout, which is average compared to the rest of the world. Burnout in cancer care workers has been reported to be 22.1 – 53.3% in the rest of the world. Young, single participants appeared to experience a greater incidence of burnout, which is consistent with the literature.

Conclusions: The incidence of burnout amongst healthcare professionals, in Pretoria oncology centres appear to be average when compared to the rest of the world. However, language problems, cultural differences and other limitations of the burnout scale may have played a role and warrants further research.

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CHAPTER 1

INTRODUCTION

Burnout is a syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment that may occur amongst individuals who work primarily with people. The first stage is emotional exhaustion, where individuals feel emotionally overwhelmed by the demands of others. The second stage, depersonalisation occurs by inappropriately attempting to cope with exhaustion, and it is characterized by feelings of detachment and dehumanisation. The final stage is a decreased sense of personal accomplishment. It is associated with feelings of inadequacy, personal failure, and feelings of poor professional self-esteem.

Burnout can be considered one type of job stress. There are many factors that can contribute to stress on the job and burnout. Some of these are due to the nature of the work, others relate to management problems, and others are due to individual factors. Those who are young, single, childless and with little work experience are at risk for suffering from burnout. The key signs of burnout could be physical, psychological or behavioural manifestations like headaches, insomnia, depression, anger, irritation, absenteeism and increases alcohol and drug usage. It is important to recognise signs of job stress and burnout, both in oneself and in co-workers, since harm can extend to patients, co-workers and of course, the individuals themselves. Recognising the symptoms and causes of burnout is an important step towards finding solutions. The knowledge that burnout is a risk faced by all healthcare workers should lead to preventative measures and strategies.

Rationale for the research

Nurses and doctors working in oncology must care for many critically ill and dying patients. They must also be able to maintain highly technical and complex equipment, and confront the needs and questions of families. These responsibilities could give rise to a heavy emotional load. When personal problems, poor support, or organizational difficulties are added, the psychological burden increases. Poor communication, inter-staff conflict, and the intensity of the relationships with patients and families, coupled with the awareness that lives hang in the balance, make the oncology unit an environment in which burnout is apt to develop. Staff is thus likely to experience both the emotional and physical symptoms of chronic stress. Ethical dilemmas also add a new burden. Yet oncology staff, both medical and nursing, not only copes, but also often have a high sense of accomplishment. Burnout in oncology health care professionals, and other specialities, has not been researched in South Africa. The following question arises. Does the oncology staff in Pretoria have the same sense of accomplishment compared to health care professionals in the rest of the world?

Context for the research

Oncology is a quaternary speciality in South Africa and this service is only available in most of the main cities of each province. The public and private sectors offers oncology services. However, both sectors are concentrated in specific areas, leaving most rural areas and even some provinces void of any such services. Pretoria is a city with a high concentration of oncology institutions. The two public institutions in Pretoria have to offer services to two other provinces as well, thus increasing the workload and strain on existing resources. The private sector also treats patients from all over the country due to the geographical distribution of oncology units. Bearing this in mind, the question arises, whether the oncology staff in Pretoria has the same levels of burnout compared to the rest of the world. I work in an oncology unit in Pretoria and at times experience and observe lack of energy, negative cynical attitudes and low job satisfaction in our unit.

AIM

To evaluate the incidence of burnout amongst health care professionals in Pretoria oncology centres, to assess whether certain variables have an influence on the levels of burnout and to compare the situation in Pretoria to the rest of the world.

OBJECTIVES

1. Literature review on burnout.
2. To conduct a survey using a standardised measuring instrument.
3. To make recommendations for preventing burnout in oncology centres.

CHAPTER 2

LITERATURE REVIEW

This chapter presents a review of the burnout syndrome as originally described by Maslach in service providers, followed by reports on burnout experience in oncology as discussed in recent medical and psychological literature.

DEFINITION OF BURNOUT

Burnout is a syndrome of emotional exhaustion (EE), depersonalisation (DP) and reduced personal accomplishment (PA) that may occur amongst individuals who work primarily with people. It is a response to the chronic emotional strain of dealing extensively with other human beings, particularly when they are troubled or having problems.[1] The interaction between service provider and client is usually centred on the client's current problem (physical, psychological, social or spiritual) and are often charged with feelings of fear, anger, despair or embarrassment. The situation could often become frustrating and questionable due to the fact that solutions are not always obvious and easily obtained. The chronic stress for the service provider continually working under these circumstances can be emotionally draining and can lead to burnout.[3]

STAGES OF BURNOUT

Burnout can be considered as a type of job stress. Although it has some of the same deleterious effects as other stress responses, what is unique about burnout is that the stress arises from the social interaction between service provider and client. According to Maslach there are three stages of burnout. The first stage is emotional exhaustion, where individuals feel emotionally overwhelmed by the demands of others. As emotional resources are depleted, workers feel they are no longer able to give of themselves at a psychological level. The second stage, depersonalisation, occurs by inappropriately attempting to cope with exhaustion, and it is characterized by negative, cynical attitudes and feelings of detachment and dehumanisation. This callous perception of others can lead providers to view their clients as somehow deserving of their troubles. The final stage is a decreased sense of personal accomplishment, it refers to the tendency to evaluate oneself negatively, particularly with regard to ones work with clients. It is associated with feelings of inadequacy, personal failure and feelings of poor professional self esteem.[1] A virtual hallmark of the burnout syndrome is a shift in the service provider's view of other people; a shift from positive and caring to negative and uncaring.[1, 20]

RELATIONSHIP

The development of depersonalisation appears to be related to the experience of emotional exhaustion, therefore these two aspects of burnout should be correlated. Personal accomplishment is independent of emotional exhaustion and depersonalisation, it can therefore not be assumed to be the opposite of the latter.[3]

WARNING SIGNS

Burnout is also described in stages recognised by certain warning signs. The first stage entails the following: persistent irritability, periods of high blood pressure, bruxism (teeth-grinding at night), insomnia, forgetfulness, heart palpitations, inability to concentrate and headaches. If the warning signs of stage one are not recognized, stage two ensues to conserve energy. Stage two include: lateness for work, procrastination, taking three day weekends, decreased sexual desire, persistent tiredness in the mornings, handing in work late, social withdrawal, cynical attitudes, resentfulness, increased alcohol consumption, increased caffeine consumption and 'I don't care' attitude. If the caregiver does not heed to the warning signals, exhaustion follows and is characterised by: depression, chronic stomach or bowl problems, chronic mental fatigue, chronic physical fatigue, persistent headaches, the desire to 'drop out' of society, the desire to move away from friends, work, and perhaps even family and suicidal thoughts.[10]

BURNOUT AND DEPRESSION

There are distinct differences between burnout and depression. Depression is a clinical syndrome, whereas burnout is the experienced crisis in the provider's relationship with work, especially the therapeutic / helping relationship with clients.[3] The aspects of this relationship consist of the focus on problems, the lack of positive feedback, the level of emotional stress, and the perceived possibility of change or improvement. The surrounding situation, job setting, overload or overwhelming workload, co-worker and supervisor difficulties and institutional rules produce other contributing factors.[1] The causes of burnout also include other factors, of which the most distinct is the emotional demands of human service work, especially when clients are experiencing distress, pain or anger. Other contributing factors are; inadequate training in communication and management, lack of reward (financial and emotional), unfairness and poorly handled evaluations, promotions, or grievances, compromised values, loss of control and inability to finish projects, rigid or chaotic health care settings, and loss of sense of community because of tensions with one's employer or colleagues. The predictors of burnout generally include both the demands of work and the lack of resources.[2, 20, 12]

Burnout occurs at individual, interpersonal and institutional level with complex interaction between them.[1] Burnout can lead to deterioration in the quality of care or service provided by the staff. It is conceptualised as a continuous variable, ranging from low to moderate to high degrees of experienced feeling. It is not viewed as a dichotomous variable, which is either present or absent.[3]

DEMOGRAPHIC CHARACTERISTICS

Overall, men and women are fairly similar in their experience of burnout. There are small differences in that women tend to experience more Emotional Exhaustion, and men more Depersonalisation and Personal Accomplishment. There is a clear relationship between age and burnout in that young people are generally more prone to burnout. Burnout is greater in those workers with less work experience and it also has a consistent

relationship with marital status. Providers who are single experience the most burnout, as do childless workers. People with different levels of education are not dramatically different with respect to burnout.[1, 3, 12,15, 17, 20, 21]

PERSONALITY CHARACTERISTICS

According to Maslach, the burnout prone individual appears to be someone who is impatient, intolerant and immature. Such a person seems to get easily angered and frustrated by any obstacles in his or her path and may have difficulty controlling any hostile impulses. He or she might likely project these feelings onto clients and to treat them in more depersonalised and derogatory ways. It appears to be someone who lacks self-confidence, has little ambition and is more reserved and conventional. Such a person seems not to have a clearly defined set of goals nor the determination and self-assurance needed to achieve them. The burnout prone individual seems to have the need to be liked and approved of by other people. Other contributing factors are personal motivation, autonomy, control, emotional control, hostility, fear and empathy.[1]

THE MEASUREMENT OF BURNOUT

The Maslach Burnout Inventory (MBI) is often used to measure burnout. The inventory has three components, emotional exhaustion, depersonalisation and lack of personal accomplishment. The emotional exhaustion subscale assesses feelings of being emotionally overextended and exhausted by work. The depersonalisation subscale measures diminished empathy and the presence of a cynical, impersonal, numb feeling. The personal accomplishment subscale assesses feelings associated with professional competence and achievement. High scores on the emotional exhaustion and depersonalisation subscales and low scores on the personal accomplishment scale reflect a high degree of burnout.

THE EFFECTS OF BURNOUT

The emotional exhaustion of burnout may be accompanied by physical exhaustion. This is due to tension and can cause insomnia and a higher susceptibility to illness. To cope with these physical problems, the burnout prone provider may turn to tranquillisers, drugs or alcohol. It also affects psychological health; providers begin to feel badly about themselves and may lead to doing a bad job. Providers in burnout are easily irritated or angered and experience low morale; they may experience relationship difficulties with family, friends and co-workers. Deterioration in providers work performance is perhaps the most visible impact of burnout followed by absenteeism and high turnover. Service providers may withdraw from clients and even act verbally or physically abusive towards them.[1, 3, 17]

THE MANAGEMENT OF BURNOUT

Individual coping skills entails the following: setting realistic goals, doing the same thing differently, breaking away from normal routine, taking things less personally, accentuating the positive, knowing thyself, rest and relaxation, making the transition by decompressing, a life of ones own and changing jobs.[1] Uninterrupted sleep, physical activity, hobbies and pastimes, time management, creating personal space, sharing responsibilities, confiding to someone, implementing changes, learning to grieve, reading and writing and reading philosophy or theology are further coping shills.[21] Co-workers provide the best qualified job-related help and support. It is done by companionship, help, comfort, insight, comparison, rewards-praise, humour, escape and getting together socially. Institutional strategies for handling burnout entails redesigning jobs, changing organizational policies, devising explicit structures and contracts, establishing flexible leave and support services and improving the training programs for staff.[1]

THE PREVENTION OF BURNOUT

Friends, colleagues and supervisors should detect signs of burnout early. This is needed to prevent the depersonalisation of the provider- client relationship. Service providers commencing in their job should be made aware of the potential difficulties of working with people and thus the risk of burnout. Service providers need to learn interpersonal skills, how to deal with different people and how to talk about unpopular topics.[1] Service providers should engage in lifestyle management. This includes having outside activities, engaging in physical activities and diversions, non-job-related social interactions, taking time off, attending to one's needs for nutrition and adequate sleep, meditation and relaxation techniques.[15] Prevention and treatment are essentially parallel efforts, including greater job control by the individual worker, group meetings, better up-and-down communication, more recognition of individual worth, job redesign, flexible work hours, full orientation to job requirements, available employee assistance programmes, and adjuvant activity.[17]

INTERVENTION AT ORGANIZATIONAL LEVEL

An organization should aim to create a less stressful environment, where burnout is minimized. It may require resourcefulness and tenacity to change the attitudes of colleagues, employers, and institutions.[10] The capacity to influence organizational policies reduces susceptibility to burnout.[3]

PERSONAL INTERVENTION

Service providers who cope well have learned to check their own burnout level regularly, and restore themselves with practical, mental and physical health-enhancing strategies. This includes: to control worry, eliminate obsessive ruminating, recognise fatigue, check perfection, delegate, play, humour, exercise, healthy eating habits, cultivate friendships, create a stable home environment, take time out and learn to say 'no' on occasion.[1]

BURNOUT IN ONCOLOGY

Cancer medicine

Cancer medicine is widely viewed as an inherently stressful speciality. Cancer clinicians have to deal with emotionally demanding interactions with patients and a high proportion of patients in whom curative treatment is ineffective. Staff may experience conflict between curative goals of the treatment and the reality that many patients will not respond to treatment. This could lead to feelings of personal failure. Sources of stress such as these are not unique to the field of cancer medicine, but are thought to occur more frequently than in many other specialities. As a result of the particular demands in cancer medicine, cancer clinicians are believed to be at increased risk of poor mental health. Yet oncology staff, both medical and nursing, not only copes, but also often have a high sense of accomplishment.[9] The prevalence of psychiatric morbidity reported by different types of cancer clinicians was 32% among medical oncologists, 22% among surgical oncologists, 29% among clinical oncologists and 25% among palliative physicians. Surprisingly perhaps, these are similar to those found among non-cancer specialists, such as radiologists (29%), gastroenterologists (26%) and general practitioners (30%). This is however still a cause for concern that more than 25% of cancer clinicians experience psychiatric morbidity. This prevalence is similar to that reported by doctors during their intern year and higher than the 18% found among the general working population (18%).[12] Other studies report 22.1 – 53.3% burnout in cancer care workers.[19, 23]

Job satisfaction

The satisfaction clinicians derive from their work has been shown to be an important factor in relation to mental health. Those who experience high job satisfaction report less psychiatric morbidity and burnout compared to those who derive little satisfaction from their work, even when experiencing high job stress. This suggests job satisfaction can protect clinician's mental health from the harmful effects of stress. Important sources of job satisfaction have been identified as having good relationships with patients, relatives and other staff, being held in esteem by colleagues, the intellectual stimulation of one's work, having adequate resources to do a good job, and having variety in one's work.[12]

Clinicians who contemplate leaving patient-related work in their chosen speciality may represent a subset of doctors in that speciality who are more at risk of burnout.[22] There is a casual cycle in which emotional exhaustion makes doctors more stressed and stress makes doctors more emotionally exhausted. Depersonalisation reduces stress but personal accomplishment increases stress both directly and also indirectly by increasing emotional exhaustion.[6] Job satisfaction protects specialists from burnout, by reducing the development of emotional exhaustion and increasing personal accomplishment. Emotional exhaustion does lead to depersonalisation, but not to low personal accomplishment.[4] The relationship between the three subsets of burnout is not yet fully understood.[3]

Palliative care

Palliative care staff is perceived to be at high risk for burnout and emotional exhaustion because of the nature of palliative work, i.e. the frequent confrontation with dying and bereavement.[13] Stress and burnout in palliative care exists but are generally less prevalent than in other specialities. This is probably the result of the early recognition of the stress inherent in the field and the support mechanisms that were built into palliative care programmes from the beginning.[15] It is demonstrated that high job related stress levels do indeed threaten staff's well being. However, the stress originates mostly from organizational and intra-team stressors and from heavy workload in patient care. Specific palliative issues do not contribute significantly to the team's experience of work stress. Lack of institutional support, including additional training, as well as resource limitations and heavy workload appear to be major sources of job stress for palliative care staff. Teamwork also contributes to stress, while at the same time social support from colleagues and the project leader is valued positively.[8] It is demonstrated that when support and training needs for palliative care staff are addressed, in a formally arranged but staff-focused educational program, important changes in indicators of personal well being can be identified.[13]

Palliative physicians and hospice nurses

The prevalence of psychiatric morbidity among palliative physicians, is 25%, which is similar to that reported by consultants working in hospital specialities, junior house officers and medical students. Palliative physicians in fact report lower levels of specific work related distress or burnout than other consultants. Similarly, hospice nurses in the United States have significantly lower levels of burnout than intensive care nurses.[2]
In general, hospice nurses have a low level of burnout, (16 – 31%). It is concluded that despite the difficult nature of hospice work, the hospice is a positive environment in which to work.[7] Hospice nurses who reported less burnout than hospital nurses said that hospice was a less stressful environment for caregivers of dying patients. They perceived greater opportunity to express work related feelings and to discuss problems at work.[18]

Death and dying

The death of a patient is clearly recognised as one of the most distressing events that nurses have to deal with in hospice, acute care and chronic oncology settings. Most nurses receive little practical educational preparation for the emotional stress of coping with dying patients or death.[18] After patients die, nurses manage bereavement tasks such as making sense of the death, managing mild to intense emotions, and realigning relationships. These tasks become more difficult when multiple deaths are encountered or when a conflict about the death occurs. Understanding theories, models, tasks, and factors influencing their bereavement may help nurses to facilitate their own grief and to reduce bereavement overload.[18] The use of narrative (telling the story) offers nurses a useful mean to reflect on individual feelings of grief encountered during clinical practice. This form of narrative account could form part of clinical supervision or a closure conference encounter where a small group of nurses can share their collective experiences of grief.[16]

Radiation therapists

Radiation therapists are reported to have high levels of burnout (45-53%). Increased levels of personal stress, environmental stress, and workload are associated with therapist's burnout, whereas reassurance of worth and the availability of guidance would seem to lessen the effects.[5] Oncology health care professionals' daily interaction with their patients are likely to elicit emotional reactions. Certain engagements may be particularly strenuous, for example breaking bad news to a young patient or to a patient the health care professional feels an affinity to. Involvement with patients suffering is however not the predominant stress for health care professionals in oncology. Higher stress is experienced from organizational factors, including work overload and its effect on home life through long working hours, an increasing managerial burden and poor resourcing. The effect of burnout is multiple, including ineffective communication with patients, deterioration in work performance, absenteeism and high turnover.[12]

Bone marrow transplant staff

Bone marrow transplant staff is responsible for managing intensive care and emergency situations, ethical dilemmas and rapid application of experimental advances in the marrow transplant technology. Adding to that interpersonal conflicts and patient deaths, bone marrow transplant staff is considered at high risk of the burnout syndrome. Previous research revealed that a large proportion of transplant personnel were experiencing symptoms of burnt out. Bone marrow transplant nurses experienced 10 – 22.5% burnout in an environment with an informal psychosocial support programme for staff needs. This is considered low compared to staff working in environments with no formal or informal staff support programmes.[14]

In conclusion

Burnout is a health care professional's occupational disease, which must be recognised early and treated.[17] Medical training and the culture of the profession do not encourage health care professionals to discuss the emotional impact of their work and there is often no time built into the system for reflection.[12] Health care professionals are increasingly aware of burnout and are concerned with its impact on the individual and the health care team. The impact of burnout can be profound, on the individual, on the team and therefore on the patients and families for whom health care is provided. The resulting loss of energy, idealism, and enthusiasm coupled with a feeling of futility and dissatisfaction with work, is disruptive and frightening, leading to seriously compromised interactions within the work setting. This disquiet associated with burnout at work can be taken home and may severely affect family life.[20] Losing any health care professional to burnout comes at an unacceptable cost to the individual, the health care system, and society at large.[10] Some of the factors associated with poor mental health among cancer health care professionals have been identified to date. They include young age, being single, lacking communication and management skills, experiencing high levels of stress and low satisfaction from one's work. It however still remains unclear why one health care

professional is able to tolerate the demands of medicine; whereas another's mental health is impaired. Other potential casual risk factors for poor mental health, such as life stress, early life experiences and the quality of confiding relationships should be investigated. [1, 2, 3] Changes need to be developed to improve the working lives of health care professionals in oncology now that the risk factors are clarified.[12]

The nature of the burnout phenomenon is not yet fully understood and there is still much work to be done in order to develop more effective interventions.[3] There are certain implications of burnout on job performance, health and psychological well-being of health care professionals.[12] The condition that is the opposite to burnout, one in which low emotional exhaustion and depersonalisation are combined with high levels of personal accomplishment, could be indicative of engagement with work. It is characterized by high energy (rather than exhaustion), involvement (rather than depersonalisation and cynicism), and efficacy (rather than a reduced sense of accomplishment. This condition has recently been the object of theorizing and provides a definite contrast to burnout, providing a positive goal for interventions.[3]

CHAPTER 3

METHODS AND MATERIALS

This chapter presents the study design, sample, measuring instrument and data analysis used in this study.

Research design

This research study is a quantitative study using a survey method.

Sample

The sample for this study involved all health care professionals working in oncology in Pretoria. The participants included doctors, nursing staff, radiographers and social workers in both state and private health care institutes, involving radiotherapy, chemotherapy and palliative care units. This was a convenience sample (n=156). There are eleven oncology institutions in Pretoria, consisting of nine private and two public sectors. These include chemotherapy units, radiotherapy units, palliative care units and units (chemotherapy) with stem cell transplant requiring intensive treatment and skills. Previously identified key persons in neutral positions were telephonically contacted to explain the purpose of the research and appointments were made to deliver the questionnaires. All the units were visited and time was spent explaining the study and a brief overview of the research was given. The key person agreed to distribute and collect completed questionnaires. The key persons distributed the questionnaires and the completed forms were returned in a sealed envelope 3 weeks after delivery. In the beginning of April 2004, 240 questionnaires were distributed and 156 were returned by the end of April 2004.

Measuring instrument

To measure burnout in this study, the Maslach Burnout Inventory - Human Services Survey (MBI – HSS) was used. (Appendix C). The Maslach Burnout Inventory (MBI) is an instrument specifically devised to measure the syndrome of burnout. It has been found to be reliable, valid and easy to administer. The MBI-HSS has been designed to assess the three aspects of the burnout syndrome: emotional exhaustion, depersonalisation, and lack of personal accomplishment. A separate subscale measures each aspect. The Emotional Exhaustion (EE) subscale assesses feelings of being emotionally overextended and exhausted by one's work. The Depersonalisation (DP) subscale measures an unfeeling and impersonal response towards clients of one's treatment, care or service. The Personal Accomplishment (PA) subscale assesses feelings of competence and successful achievement in one's work with people.

The MBI-HSS is a 22-question instrument developed by Maslach and Jackson in the United States of America, California, in 1996 to measure burnout as an occupational issue for people providing human services.[3] All questions were scored on a Likert scale

ranging from 0 (never) to 6 (every day), that portrays the frequency that the participant experiences the feelings. The first stage, emotional exhaustion, consists of nine questions. The second stage, depersonalisation, is assessed by five questions. The final stage, personal accomplishment, is measured by eight questions. The sum of the scores for each stage was obtained. A high score for emotional exhaustion or depersonalisation and a low score for personal accomplishment indicated a high degree of burnout. An average degree of burnout is reflected in average scores on the three subscales. A low score for emotional exhaustion or depersonalisation and a high score for personal accomplishment indicate a low degree of burnout. Scores are considered high if they are in the upper third of the normative distribution; average if they are in the middle third, and low if they are in the lower third. The scores for each subscale are considered separately and are not combined in a single total score.

The Maslach Burnout Inventory Manual (MBIM) suggests that the examiner of the MBI – HSS needs no special qualification nor requires any special procedure in administering the questionnaire. However, it is suggested that the examiner should not be a supervisor or administrator who has direct authority over the respondents as this could influence their answers. The examiner should ideally be a neutral person. If the examiner is a person well known to the participants, he or she should be someone they trust. To minimize response biases, participant's privacy and confidentiality should be assured. Participants should also be unaware of the fact that the questionnaire is a burnout measure in order to prevent sensitisation. Ideally the examiner should stress the importance of giving honest answers, reassure participants about the confidentiality of the result, make sure that all questions are clear and understood and finally that all questions are completed. In this research, all the above conditions were met. It was found however that some questions were not completed and participants may have been unsure of their confidentiality.

The MBI has been used extensively in burnout research, and evidence of its construct validity has been assessed initially with exploratory factor analysis and, after initial development, with confirmatory factor analysis. Maslach and Jackson[3] report reliability coefficients of 0.90 for emotional exhaustion, 0.79 for depersonalisation, and 0.71 for personal accomplishment.

The MBI-HSS is self-administered and takes about 15 minutes to complete. The first part of the questionnaire (Appendix A) is the consent form. The second part consists of demographic questions related to gender, age, marital status, dependants and years of experience (Appendix B). The last part consists of the MBI-HSS (Appendix C). In order to ensure anonymity no signatures of participants was requested, completion and submission of survey implied consent. The UCT Ethics Committee approved this protocol.

Ethical considerations

Maslach and Jackson[3] recommend not informing participants that this is a burnout scale. The reason being it affects their honest answers. Health care professionals were therefore

asked to consent to participate in a human services survey. The consent form explained that the purpose of the survey was to discover how various people in the helping professions view their job and the people with whom they work. Participation was voluntary and by completing the questionnaire, the health care professionals consent was assumed. The survey was done on an anonymous basis and therefore the participant's confidentiality was assured. All results are presented in summary form and no individual is identified. The aim of the survey is purely for research purposes and the proposal complies with the requirements of the Helsinki declaration.[11] The University of Cape Town ethics committee approved the study.

Data analysis

The statistical analysis was done by Rauf Sayed of the Statistics Department at the University of Cape Town. The Kruskal-Wallis test was applied when comparing 3 or more categories while the Wilcoxon rank-sum test was applied when comparing 2 groups. The data are presented in narrative and statistical form.

CHAPTER 4

RESULTS

This chapter presents the demographic results and statistical analysis presented in narrative and statistical form.

Response to the questionnaire

Previously identified key persons at all the centres distributed 240 questionnaires of which 156 were returned. This represents a 65% response rate, which appears to be an average response rate compared to the literature which reports a 50 – 82% questionnaire return.[5, 19, 27] A small number of the participants (4), work in both public and private sectors. They were excluded from the analysis. Of the 156, 29 participants left out some details. Three left out all the demographic questions, 2 did not complete the scale, 1 marked 0 throughout the whole scale. These 6 were subsequently left out in the analysis. Eight participants left out some demographics, 5 left out years of experience, 3 left out age and 1 left out dependant children. Twenty participants left out some questions on the scale, 1 question 2, 1 question 3, 2 question 4, 7 question 10, 3 question 16, 3 question 18, 1 question 19, 1 question 20, and 1 question 21. These questions were excluded from the analysis.

Demographics

The majority of participants were female of which most were between 30 – 49 years of age with 10 – 19 years of experience. Most participants were married with dependant children. The majority of the participants work in the clinic setting and most were employed by the private sector. Details are presented in table 1.

TABLE 1: DEMOGRAPHIC DATA

Variable	N	%
Age group:		
<30	25	16.67
30 - 49	93	62.00
50+	29	19.33
Unknown	3	2.00
Gender:		
Female	135	90.00
Male	15	10.00
Experience:		
1 – 9	38	25.33
10 – 19	55	36.67
20+	52	34.67
Unknown	5	3.33
Marital status:		
Married	89	59.33
Divorced	14	9.33
Single	47	31.33
Dependant children:		
Yes	104	69.33
No	45	30.00
Unknown	1	0.67
Institutions:		
Private	92	61.33
State	54	36.00
Both	4	2.67
Work setting:		
Clinic	87	58.00
Ward	63	42.00

Statistical results:
The mean score on EE was 19.99; on DP 6.75 and 35.87 on PA. The percentage scored by the participants on EE was 25.69%, on DP 24.65% and on PA 32.87%. The summary is presented below.

TABLE 2: SUMMARY OF SUBSCALES

Scale	N	Mean	Median	SD	Range
EE score	144	19.99	17	12.21	0 - 52
DP score	142	6.75	6	5.7	0 – 28
PA score	143	35.87	37	8.03	12 - 48

It is found that 24.65% - 32.87% of participants in this research. experienced a high degree of burnout, as presented in table 3. This is considered average compared to the rest of the world.[14, 18, 19, 23]

TABLE 3: TABULATION OF EE, DP AND PA SCORES

Scores	N	%
EE Score:		
Low	78	54.17
Average	29	20.14
High	37	25.69
DP Score:		
Low	68	47.89
Average	39	27.46
High	35	24.65
PA Score:		
Low	54	37.76
Average	42	29.37
High	47	32.87

The Kruskal-Wallis test was applied when comparing three or more categories while the Wilcoxon rank-sum test was applied when comparing two groups. No statistically significant difference was detected in the EE score (Emotional exhaustion) and PA score (Personal accomplishment) by age group (p = 0.4870, p = 0.0493). However the DP score (Depersonalisation) was found to be low in the older than 50 year age group, while under 49 years of age experienced an average DP score (p = 0.0115). See table 4.

TABLE 4: COMPARISON OF DP SCORE BY AGE GROUP

Age group	N	Mean	SD
<30	25	7.72	5.135822
30 – 49	88	7.261364	5.861415
50+	27	4.62963	5.115197

P = 0.0115 (Kruskal-Wallis test)

According to the EE score by gender, there was no statistically significant difference (p = 0.9650). The DP score by gender was also not statistically significantly different (p = 0.6407) and no statistically significant difference by gender was observed for the PA score (p = 0.1395) on the Wilcoxon rank – sum test. No statistically significant difference was detected in the EE score and PA score by marital status (p = 0.2881, p = 0.2145). However the DP score was found to be low in the married group, while the single group experienced an average DP score (p = 0.0229) on the Kruskal – Wallis test. See table 5.

TABLE 5: COMPARISON OF DP SCORE BY MARITAL STATUS

Marital status	N	Mean	SD
Married	84	5.952381	5.626754
Single	45	8.244444	5.709464

P = 0.0229 (Kruskal-Wallis test)

When comparing the score by experience, the Kruskal-Wallis test showed a statistically significant difference for the DP score in participants reporting more than 20 years experience. These participants scored low on the DP score, i.e. a low burnout score. Participants reporting only 1–9 years of experience scored an average DP score, thus average burnout (p = 0.0350). See table 6.

TABLE 6: COMPARISON OF DP SCORE BY YEARS OF EXPERIENCE

Experience	N	Mean	SD
1 – 9	35	7.657143	5.121712
10 – 19	53	7.245283	5.642918
20+	50	5.76	5.960961

P = 0.0350 (Kruskal-Wallis test)

According to the EE score by dependant children, there was no statistically significant difference (p = 0.4322). The DP score by dependant children was also not statistically significantly different (p = 0.0749) and no statistically significant difference by dependant children was observed for the PA score (p = 0.8917) on the Wilcoxon rank – sum test. According to the EE score by institute, there was no statistically significant difference (p = 0.9551). The DP score by institute was also not statistically significantly different (p = 0.6893) and no statistically significant difference by institution was observed for the PA score (p = 0.2905) on the Wilcoxon rank – sum test. According to the EE score by clinic / ward participants, there was no statistically significant difference (p = 0.5418). The DP score by clinic / ward participants was also not statistically significantly different (p = 0.3513) and no statistically significant difference by clinic / ward participants was observed for the PA score (p = 0.0614) on the Wilcoxon rank – sum test.

CHAPTER 5

DISCUSSION

This chapter presents the discussion and interpretation of the findings.

Language

The Maslach scale administered was only available in English. This survey was done on an anonymous basis; therefore clarity could not be given on the meaning of questions. Questionnaires could not be checked to see if all the questions were completed. Many participants first language may not be English. This could explain why some questions were not answered. There are eleven official languages in South Africa with no single common language to all as well as numerous cultural differences. Questionnaire bias cannot be excluded because the Maslach scale administered was only available in English and may not be as valid in different South African cultures. No similar studies have been done to validate it in South Africa. Two studies were done on burnout in Africa, without using the MBI. [23, 24] One study that could be found in South Africa was done on burnout in childcare social workers. [26]

The incidence of burnout in health care workers in South Africa

No similar studies have been published to date regarding burnout in health care professionals in South Africa. The Maslach Burnout Inventory has also never been validated in South Africa. African studies on burnout were done in Kenya and Ghana, without the use of the MBI. [23, 24] One study that was reported in South Africa on burnout was in childcare social workers. This study found the incidence of burnout to be moderate. [26] Different measurement instruments were used making direct comparisons difficult.

Demographics

In the demographic section of the questionnaire some participants failed to answer "years of experience". It could be that the question was unclear. Some left out "age" and this could be considered by some, as a private and sensitive issue. One participant failed to answer "dependant children". This could be due to an unclear question, language barrier or again a sensitive issue. No data however were collected to assess reasons for non-response.

Questionnaire issues

The following questions were left out due to possible translation problems or fears of persecution. Question 2, 'I feel used up by the end of the work day,' question 3, 'I feel fatigued when I get up in the morning and have to face another day on the job,' question 20, 'I feel like I'm at the end of my rope,' question 19, 'I have accomplished many worthwhile things in this job,' question 21, 'In my work, I deal with emotional problems

very calmly.' Question 10, 'I have become more callous towards people since I took this job,' was not completed by seven participants. It is possible that respondents did not know what the word callous meant. Question 4, 'I can easily understand how my recipients feel about thing' was left out by 2 participants. Although the recipient was specified in the consent form, it may be that it was not understood. Question 18, 'I feel exhilarated after working closely with my recipients' was left out by 3 participants. It could be that they did not know what exhilarated means. Question 16: 3 participants left out 'Working with people directly puts too much stress on me'. This may also be due to fear of persecution, although anonymity was ensured. Once again, however no data were collected to assess reasons for non-response.

Bias

Due to the nature of the study design, non- response and volunteer bias may be a factor affecting results. It is possible that those health care professionals who did not complete the questionnaires might be symptomatic and in burnout (high scores). Likewise it is possible that those who did volunteer to complete the questionnaire might be those who are not in burnout, thus affecting the results both ways. Encouraging survey returns could perhaps have minimized bias. As this was a survey, a convenience sample was used.

Findings

The majority of the participants were female. This appears to be representative of the population researched, as most nursing staff, radiographers and social workers are female in this environment. The majority of participants were between 30 – 49 years of age with 10 – 19 years of experience. It is possible that those more prone to suffering from burnout, being young of age and inexperienced, already left the field. Most participants were married with dependant children. It is also possible that those at risk for burnout, being single and childless, already left the field due to burnout. Perhaps cancer medicine appeals to more older and married people. The majority of the participants work in the clinic setting and most were employed by the private sector. This appears to be representative of the population studied. Pretoria has a lot of private institutes compared to the public sector. Many private practices utilize other inpatient units, which are not 'oncology' wards per se. Oncology patients can mostly be treated as outpatients. Those with complications, transplants or continuous infusion chemotherapy treatment are admitted. This may explain the difference in the response observed between the clinic setting and inpatient unit participants. There was also a very poor response from the one state hospital's inpatient unit, which may affected the outcome of the study.

No statistically significant difference was detected in the EE score and PA score by age group. However the DP score was found to be low in the older than 50-year age group, while less than 49 years of age experienced an average DP score. This is in keeping with the research[1] that young people are more inclined to experience burnout. According to the EE, DP and PA score by gender, there was no statistically significant difference. The number of participating males was too small to really comment on, although Maslach[1] found that males and females are fairly similar in their experience of burnout. There are

small differences. Women tend to experience more EE, and men more DP and PA. No statistically significant difference was detected in the EE score and PA score by marital status. However the DP score was found to be low in the married group, while the single group experienced an average DP score. This is in keeping with the literature,[1] that found single people more prone to suffer from burnout.

A statistically significant difference was found for the DP score with participants reporting more than 20 years experience, scoring low on the DP score. Participants reporting only 1–9 years of experience scored an average DP score. Maslach[1] found that providers with little work experience are more susceptible to burnout. According to the EE score by dependant children, there was no statistically significant difference. The DP score by dependant children was also not statistically significantly different and no statistically significant difference by dependant children was observed for the PA score. This is in contrast to Maslach[1] who found that providers with children had a lower incidence of burnout. It is possible that culture differences play a role in South Africa, as it is a common practice among some working South African parents to send their children away to live with relatives. This practice may have influenced the results.

According to the EE score by institute, there was no statistically significant difference. The DP score by institute was also not statistically significantly different and no statistically significant difference by institution was observed for the PA score. This is an interesting finding, as I would have expected the public servant participants to experience more burnout compared to the private sector. The view is often in South Africa that the health care setting, workload and budget constraints experienced in state institutions are too much to bear and these are factors causing burnout. It could be that the private institutions service providers are also experiencing burnout risk factors or that the public institutions service providers are coping well. According to the EE score by clinic / ward participants, there was no statistically significant difference. The DP score by clinic / ward participants was also not statistically significantly different and no statistically significant difference by clinic / ward participants was observed for the PA score. Clinic service providers work with outpatients who are on active treatment and then leave to go home. Ward service providers are often 'stuck' with inpatients. They have to care for the critically ill and dying. The expectation is that clinic service providers should experience less burnout than ward service providers. This does not appear to be the result in this research.

According to the MBIM[3], the normative distribution mean for medicine of EE is 22.19. However, participants in this study scored 19.99. The DP normative distribution mean in medicine according to the MBIM is 7.12. Participants in Pretoria scored 6.75. The PA normative distribution mean according to MBIM for medicine is 36.53. Participants in this study scored 35.87. Participants locally scored slightly less in EE, DP and PA compared to the normative distribution in medicine. 24.65 – 32.87% of participants appear to experience high burnout scores and this is average compared to the rest of the world.[14, 18, 19, 23]

These finding are contrary to expectation. I would have expected that being in South Africa with very few oncology facilities, enormous budget constraints and heavy patient loads, health care professionals working in oncology would have a high percentage of burnout. It may be that cultural and language differences impacted on the findings of this study. These differences may well protect this population from experiencing burnout, or questionnaire difficulties encountered could have biased the results.

Limitations

This study had a few limitations being that the questionnaire was only available in English and many participants first language may not have been English. Non- response and volunteer bias cannot be excluded. Data were not collected on participants that did not respond to the questionnaire. Cultural differences may not be accounted for with this measurement instrument.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

The following chapter concludes this research study and recommendations for further research and the institution of policies is presented.

Conclusions

The Maslach Burnout Inventory was distributed to healthcare professionals in oncology centres in Pretoria. This was a voluntary questionnaire with consent implied by completion and return of the questionnaire. The response rate to this questionnaire was 65%. The majority were female participants, which appears to be representative of the population. The incidence of burnout amongst healthcare professionals in Pretoria oncology centres appeared to be average when compared to the rest of the world. Young, single participants appeared to experience greater incidence of burnout. Years of experience in the profession also impacted on the experience of burnout. Those participants having more than twenty years of experience appeared to have less burnout. This is consistent with the literature.

Recommendations

1. Care must be taken to ensure that the burnout percentage remains as low as possible. Awareness of burnout should be implemented in the work place and during training. Prevention and coping strategies should be encouraged.
2. The MBI should be validated in South Africa, by being translated into the indigenous languages and the normative distribution for South Africans should be determined.
3. Cultural differences and their impact on burnout may warrant further research.
4. Employee assistance programs, communication skills training courses, leadership training, management skills training, facilitating team working and staff support programmes should be implemented in cancer care institutions.
5. These assistance programs and training courses need to be regularly assessed to ensure prevention and management of burnout is achieved. Interventional studies of this nature are often costly and difficult to implement.

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APPENDIX A

HUMAN SERVICES SURVEY

You are being asked to participate in a human services survey. The purpose of this survey is to discover how various people in helping professions view their job and the people with whom they work.

This questionnaire will take about 10-15 minutes to complete. Participation is completely voluntary and will be done on an anonymous basis. As the questionnaire will be completely anonymous, your confidentiality is assured.

All information will be presented in summary form and no individual will be identified. The aim of this survey is purely for research purposes.

Please tick the appropriate box:

I consent to willingly complete the survey

I would rather not complete the survey

APPENDIX B

Please tick all correct answers:

Gender
- Male
- Female

Age: ----------

Years of work experience: ----------

Marital Status
- Married
- Divorced
- Single

Dependant children
- Yes
- No

Education
- Certificate
- Diploma
- Degree
- Postgraduate degree

APPENDIX C

MBI HUMAN SERVICES SURVEY

Because persons in a wide variety of occupations will answer this survey, it uses the term recipients to refer to the people for whom you provide your service, care, treatment or instruction. When answering this survey, please think of these people as recipients of the service you provide, even though you may use another term in your work e.g. patients.

On the following pages there are 22 statements of job related feelings. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, write an "O" (zero) before the statement. If you have had this feeling, indicate *how often* you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way. An example is shown below.

Example:

How Often	0 Never	1 A few times a year or less	2 Once a month or less	3 A few times a month	4 Once a week	5 A few times a week	6 Every day

How often

0-6	Statement:
---	I feel depressed at work

If you never feel depressed at work, you would write the number "0" (zero) under the heading "**How often**". If you rarely feel depressed at work (a few times a year or less) you would write the number '1'. If your feelings of depression are fairy frequent (a few times a week, but not daily) you would write a "5".

MBI Human Services Survey

How Often	0 Never	1 A few times a year or less	2 Once a month or less	3 A few times a month	4 Once a week	5 A few times a week	6 Every day

HOW OFTEN
0-6 Statements

1. ---------- I feel emotionally drained from my work.
2. ---------- I feel used up at the end of the workday.
3. ---------- I feel fatigued when I get up in the morning and have to face another day on the job.
4. ---------- I can easily understand how my recipients feel about things.
5. ---------- I feel I treat some recipients as if they were impersonal objects.
6. ---------- Working with people all day is really a strain for me.
7. ---------- I deal very effectively with the problems of my recipients.
8. ---------- I feel burned out from my work.
9. ---------- I feel I'm positively influencing other people's lives through my work.
10. ---------- I've become more callous toward people since I took this job.
11. ---------- I worry that this job is hardening me emotionally.
12. ---------- I feel very energetic.
13. ---------- I feel frustrated by my job.
14. ---------- I feel I'm working too hard at my job.
15. ---------- I don't really care what happens to some recipients.
16. ---------- Working with people directly puts too much stress on me.
17. ---------- I can easily create a relaxed atmosphere with my recipients.
18. ---------- I feel exhilarated after working closely with my recipients.
19. ---------- I have accomplished many worthwhile things in this job.
20. ---------- I feel like I'm at the end of my rope.
21. ---------- In my work, I deal with emotional problems very calmly.
22. ---------- I feel recipients blame me for some of their problems.

(Administrative use only)

EE: ---------- ---------- DP: --------- --------- PA: --------- ---------