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Burnout in mental health professionals:

The role of team climate

Lulu Preston

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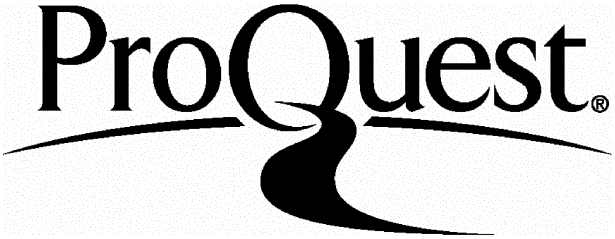
University College London



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ABSTRACT

Burnout in nurses has been well established by a number of researchers, and it has been linked with serious personal and organisational consequences, such as increased staff turnover. Few studies have looked at a broader sample of mental health professionals (Leiter & Harvie, 1996). Several factors have been associated with the emergence of burnout, for example demographic variables, however, due to methodological difficulties the research has yielded few definitive conclusions. The current study aimed to identify burnout and other stress-related conditions, such as anxiety and depression, in nursing and non-nursing groups. The relationship between burnout and group environment, personality and group participation in multi-disciplinary team meetings was explored.

Sixty-six mental health professionals from nine multi-disciplinary teams working in acute psychiatric settings were invited to complete a set of standardised self-report measures and some additional questions. A measure of group participation was gained from one multi-disciplinary team meeting from each team. Correlation and regression analyses revealed that Group Environment significantly predicted burnout ($p<.01$), independently of personality. Burnout was prevalent in all professionals. A model of the influence of team climate on burnout was outlined, and suggestions were made for practical implementations that could be introduced to help reduce burnout in mental health professionals.

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CHAPTER ONE

INTRODUCTION

1.1 Overview

Staff burnout has been the subject of much empirical investigation in healthcare settings, particularly in the last 10 years. A key reason for the increasing interest is that several studies have suggested that staff sick leave, absenteeism and staff turnover are frequent consequences of high levels of burnout (Parker & Kulik, 1995; Leiter, 1990). This has serious cost and service provision consequences for health authorities, yet this phenomenon has not been widely investigated in Great Britain. Koeske & Kelley (1995) note that occupational hazards particular to working in mental health, for example, over-involvement, correlate with greater levels of staff burnout. With major structural changes currently occurring in the NHS and staff shortages ensuring that occupational health issues are coming to the fore, phenomena such as burnout seem increasingly important to consider.

Most of the burnout research so far has focused on identifying the syndrome, and examination of important consequences, such as staff turnover (Baba, Jamal & Tourigny, 1988). This has served an invaluable function in highlighting stress in staff working in care provision, and identifying some of the damaging consequences, when the problem is not addressed. However, there has been a lack of comprehensive investigation, with a wide range of different theoretical models guiding the research

and a lack of standardised measures for exploring potential causal factors (Duquette *et. al.*, 1994). Many of the findings relate to specific groups or specific settings, for example, nurses working in palliative care (Vachon, 2000). Consequently, comparison between studies is difficult, and the generalisability of findings is unclear.

The little research that has investigated burnout in mental health settings, has concentrated mainly on nursing populations, in relatively small numbers (Baba, Jamal & Tourigny, 1988). The prevalence of burnout in mental health settings, and whether or not it is specific to professional group is still unknown. Many factors have been associated with the emergence of burnout, including: setting; type of patient disorder; amount of time spent with patients; lack of supervision; work overload; verbal and physical abuse from patients and poor social support. One area that has been consistently overlooked is the broad context in which mental health professionals work: multi-disciplinary teams. In fact, team functioning in general, within mental health settings, has not been widely investigated. Consequently, little is known about its potential contribution to burnout or, indeed, its potential as a protective buffer.

How one evaluates the functioning of a team depends on the remit of the group in question, and is thus necessarily subjective. Multi-disciplinary teams in mental health settings are largely task-orientated and specific objectives, such as decisions about and implementation of patient care, have to be met. Other aspects of team functioning are not so clearly specified, but have a clear value, for example, team cohesion, and leader support (Moos, 1981). It seems reasonable to assume that if team members feel that their team is not functioning well, this will add to other pressures from work, and

may lead to negative feelings, disengagement from the team, and other undesired outcomes. Alternatively, if a team is perceived to provide support, and staff feel their problems are shared, or at least, understood by other team members, then this may have a preventative function for the emergence of work-related stress.

Moreover, there may be additional factors, specific to multi-disciplinary teams, but separate from team function *per se*, that contribute to staff stress. Fewtrell & Toms (1985) studied content of discussion and the length of individual team members' contributions, during weekly ward rounds. Medical professionals were found to occupy the majority of discussion time and subsequent studies identified that some mental health professionals preferred greater equality in group participation (Rintala *et. al.*, 1986). Therefore, it seems that not only obtaining a measure of team functioning, but also relating this to other aspects of team working, such as group participation in ward rounds, would be useful in identifying or eliminating potential sources of staff stress.

Finally, it seems important to consider individual factors that may also contribute to negative feelings at work. Researchers have looked at personality in relation to stress, and found correlations with specific personality traits, like neuroticism, in some mental health professionals (Deary, *et. al.*, 1996). There is extensive research into the relationship between personality variables and concomitant negative affects, and also with use of coping strategies (Costa & McRae, 1992). Some investigation into the effect personality may have on burnout in mental health professionals has been conducted, however, findings have not been conclusive.

Based on the strengths and gaps in current research, this study aims to identify the prevalence of burnout in a broad sample of mental health professionals, and to explore the interaction between burnout and team functioning, considering the effect of personality and group participation in ward rounds.

To provide a context for the current study, this chapter will begin by examining the concept of burnout and reviewing the literature on established associated factors. Further variables that have received less investigation, such as personality traits, will be considered in relation to staff burnout. Finally, team functioning in general, and aspects of multi-disciplinary teams working in psychiatric settings, in particular, will be explored. The rationale for the study will then be outlined, followed by specification of the research aims.

1.2 Burnout

Before examining the concept of burnout in detail, it is necessary to look at the broader issue of 'stress' in general, to clarify why burnout was chosen for further study. There is a great deal of research on the concept of stress, however, the construct itself is poorly defined. Indeed, the existence of stress as a single construct has been challenged (Mobley, 1982). The construct of burnout has been more rigorously defined and quantified and has been closely linked with stress, in fact, many authors do not distinguish the two (Driscoll, *et. al.*, 1995). It is suggested that

using the concept of burnout as an indicator of generic job stress, unhappiness and a general desire for things to change beneficially, is appropriate.

The stressful nature of working with people who have psychiatric problems has been established, and amongst many other difficulties encountered by mental health workers, is a complex problem, not easily addressed (Koeske & Kelley, 1995). However, the process of resolving such problems begins with consistent identification of associated factors that may contribute to their existence. Maslach and Jackson (1981) suggest that stress in staff and low morale adversely affects the quality and delivery of patient care. Furthermore, high burnout has been consistently associated with increased sick leave and absenteeism (Maslach & Jackson, 1982; 1990). Deary *et. al.* (1996) highlight the point that if a work variable has been reliably associated with a health risk, then steps should be taken to address it. Therefore it seems imperative that potential causal variables for staff stress are investigated, in order to construct solutions whose implementation would facilitate a better working environment for staff, and better care provision for patients. It is hoped that this study will contribute to the existing literature on burnout in mental health staff and facilitate awareness of it as a potential hazard to workers' health.

1.2.1 Burnout: the construct

In the 1960s and 1970s, researchers identified that people whose work involves close involvement with people in need, often in health, social or educational contexts,

experienced certain negative feelings about themselves and their clients (Ryan, 1971; Wills, 1978). These feelings are considered to arise when the work context is focused on people's emotional, social or physical problems, and importantly, when those problems are difficult to resolve. A combination of strong emotions for the clients' situation and consequent feelings of frustration and hopelessness are often found in what have been broadly termed 'human services'. Culmination of these feelings and frustrations has been found to lead to three specific areas of 'burnout' (Maslach & Jackson, 1981). Emotional Exhaustion occurs when people's ability for empathic reflexiveness diminishes and they are less able to respond emotionally to clients' difficulties. Depersonalisation refers to negative or cynical attitudes towards clients, which are characterised by attributions of blame. Therefore, clients are seen as deliberately causing their difficulties, often to 'spite' professionals. These two aspects of burnout are quite closely correlated, and Depersonalisation is seen as a consequence of Emotional Exhaustion. The third aspect of burnout is reduced Personal Accomplishment, whereby professionals experience low self-esteem and self-efficacy, particularly in regard to their work. Maslach and Jackson (1981) devised a scale – The Maslach Burnout Inventory (MBI) – that was designed to measure these three dimensions of burnout. It is worth noting that burnout is not a clinical syndrome, and therefore it does not have recognized criteria and norms for caseness levels. However, burnout is recognized as a problematic condition that affects lots of people working in human services that can be reliably identified and measured, using the MBI.

Burnout is expressed through psychological, physical and behavioural responses. Feelings of fatigue and emotional exhaustion, irritability, anxiety and depression are characteristic in burnout (Pines & Aronson, 1981). Somatic complaints include backache, headache and stomach disorders. These and related symptoms are mostly detected in the workplace, rather than the home environment, leading to the assumption that burnout is caused in part, by occupational stressors. No previous history of psychiatric problems is apparent in mental health staff who show symptoms of burnout, and in fact, burnout is not classified as an illness in itself. However, it has been linked with increased incidence of depression and anxiety-related problems, which suggests that although not as critical as other conditions, it may lead to more psychopathological problems (Duquette *et. al.*, 1994). The variety of symptoms and their mode of expression indicates that burnout is a multi-dimensional condition, which suggests that many possible initiating variables may be involved in its development (Kahill, 1988).

There have been criticisms of the burnout construct, which have centered mainly around its definition as a unified construct. Alternative hypotheses suggest that the term 'burnout' refers to factors that are better described as morale issues, work-related stress, individuals' difficulties such as lack of confidence, and so on (Kahill, 1988). The theoretical issues seem to concern the construct validity issue of whether or not the term burnout appropriately describes various manifestations of stress in the workplace. The fact that, in general terms, staff appear dissatisfied or unhappy with their situation at work, and that this has reached a level whereby it can be differentiated as pathological, is the important issue. Burnout, here, represents an

example of this problem, and it is not seen as the only way to conceptualise the problem. The construct of burnout was specifically chosen as the focus for study is due to the fact that, unlike other, related phenomena, burnout has been measured by a standardised, psychometrically validated instrument. Therefore, any findings are more reliable and are comparable to other studies that have used the same instrument. The small amount of research that exists in the area of mental health professionals' negative attitudes and feelings towards work has been plagued by methodological difficulties. It seemed only prudent to minimize one such aspect of divergence by utilizing a construct and tool that has been shown to be consistent.

1.2.2 Burnout in nurses

An extensive literature review demonstrated that although there is a lot of research on burnout, most of it is in non-clinical settings. In mental health settings, because the large majority of the staff are nursing staff, they also spend the greatest amount of time with patients. Therefore, much of the literature on burnout in the mental health arena uses nursing groups as participants. It is unclear whether nurses are representative of mental health staff in general, or whether research findings should be interpreted in the context of nursing staff only. It may be that certain organizational constraints affect psychiatric nursing personnel and create more job stressors, than exist for other professions. Examples of potential stressors include increased time spent with patients; uneven work hours; increased risk of physical and verbal abuse (Driscoll *et. al.*, 1995; Duquette *et. al.*, 1994).

Specific client problems and the amount of time spent with clients have been suggested to impact on increased burnout in psychiatric and mental health nurses (Maslach & Jackson, 1981). The amount of time that nurses spend with patients can be greater than in medical care units and is substantially greater than any other profession, whatever the setting. Therefore, perhaps psychiatric nurses experience more burnout than other professions and other types of nurses, due to the increased amount of time they spend with patients. Hare and Pratt (1988) studied nurses working in 10 acute and long-term care facilities and used the MBI to measure burnout. They found no correlation between burnout and time spent with patients, a conclusion also reported by Duquette and colleagues (1994). When comparing nurses in psychiatry and those working on various medical units, Cronin-Stubbs and Rooks (1985) found no association between setting and burnout. Harris (1984) used over 70 nurses from a number of different hospitals and reported no difference in burnout scores between settings. Kandolin (1993) found that burnout scores were associated with physical aggression by patients, which has been found more in psychiatric settings, than in medical settings. Therefore, the amount of time spent with patients has not been shown to have an impact on burnout scores, and other findings further suggest that setting, and therefore the type of client problem, does not seem to relate to burnout. In fact, physical aggression seems to be the only feature found mostly in psychiatric fields, which is correlated with burnout.

Therefore, there is some evidence that burnout scores are elevated in nurses who work in mental health settings. This may be due in part, to the greater incidence of physical assaults on staff by patients in psychiatric units (Driscoll *et. al.*, 1995). It has

been further documented that nurses are more likely to be assaulted by psychiatric patients than members of other staff groups. Potentially, then, nurses may have higher burnout scores than their fellow colleagues. However, as yet, there has been little focus on any differences between nurses and other professionals working in the same unit.

1.2.3 Variables associated with the emergence of burnout

Burnout has been substantially investigated in industrial and other occupational settings, however, due to the many differences between occupational and clinical settings, the suggested antecedents from that body of research will not be reviewed here. Instead, this next section will cover findings from research with staff working in human services. One of the strengths of the burnout literature is that the vast majority of studies have used the same measure: the Maslach Burnout Inventory (Maslach & Jackson, 1981, 1986; Kahill, 1988). This facilitates reliable comparison across studies, which, in turn, aids identification of possible antecedents to burnout.

Within the burnout literature a wide variety of possible antecedents have been identified, including factors associated with the individual, with patients, and with work (Leiter & Harvie, 1996). Duquette *et. al.* (1994) proposed a framework for grouping variables associated with burnout, whereby they can be divided into organizational, sociodemographic, personal and buffering factors. As other classifications can be included within Duquette *et. al.*'s model, this will be used here to structure the review of the research findings.

Sociodemographic Factors

Demographic variables and ideological stances are included under individual factors thought to impact on burnout. Demographically, age, gender, job title, length of employment, status, number of children and education have all been investigated and the MBI was used to measure burnout in over 80% of the studies reviewed. Duquette and colleagues (1994) reviewed a study (unpublished) where nearly 100 nurses in Los Angeles participated and the investigator found no significant relationship between burnout and education, or job title. Age has been correlated with burnout symptoms in nurses, with younger staff experiencing higher levels of burnout than older staff (Williams, 1989), however, this has not been substantiated in other studies (Raquepaw & Miller, 1989). Furthermore, investigations into ideological differences, including cultural differences, have yielded no conclusive findings (Jamal, 1990). Length of stay in post has been suggested as a predictor of burnout, however, theorists differ on the directional influence of this variable. For example, some researchers have postulated that inexperience correlates with higher burnout, as a function of decreased coping strategies and resources to manage work stress (Williams, 1989), whilst others suggest that as burnout is seen as a cumulative reaction to work stressors, then greater length of stay leads to more burnout (Maslach & Florian, 1988). Raquepaw & Miller (1989), however, found no differences on the MBI when comparing age or years of experience. The overall picture from the research suggests that demographic variables may relate to burnout in some cases, however, the findings have not been substantiated to such an extent that demographic variables can be seen as major causes of burnout.

Personal Factors

Personality traits and types have been the focus of much of the research into individual factors in burnout. This research has had two emphases: personality as a causal or predictive factor (Keinan & Melamed, 1987), and personality as a protective or buffering factor in burnout (Rich & Rich, 1987). This section focuses on findings relating to the first view, and the protective function of personality will be considered later in the chapter.

Deary *et. al.* (1996) studied personality traits and burnout in 39 consultant psychiatrists, using the MBI and the NEO Five Factor Inventory (NEO-FFI; Costa & McRae, 1992), a personality measure of five dimensions of personality: Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness. They recruited 149 general physicians and surgeons as a comparison group. Their findings indicated that psychiatrists scored higher on Neuroticism, Openness and Agreeableness, and lower on Conscientiousness than other medics. Deary and colleagues also found that psychiatrists reported greater work-related emotional exhaustion ($p<.03$) and depression ($p<.02$). They conclude that psychiatry may attract people with certain personality traits, and that the interaction of these with work stressors can lead to burnout and other forms of psychological distress. Keinan & Melamed (1987) suggest that people who show an increased tendency for emotional arousal are more 'burnout-prone' after conducting a study with 79 doctors. This theory is also supported by Naisberg-Fennig *et. al.* (1991) who reported that burnout correlated with trait anxiety in psychiatrists. Deary *et. al,* (1996) suggest a transactional model of stress whereby

the interaction of the individual and work variables lead to stress in some cases. They also note that this model is applicable to any profession. Their conclusions suggest that psychiatric work attracts different types of people than other settings, and that perhaps, these people are more sensitive to particular types of stress. Recommendations were made for intervention at an organizational level to prevent burnout and other unwanted affective conditions.

There is further evidence to support a link between personality variables and burnout. Zellars *et. al.* (2000) asked 169 nurses to complete the NEO-FFI. The findings indicated that personality dimensions significantly and differentially impacted on the 3 different aspects of burnout, after controlling for demographic variables. Alvarez (2000) also used the MBI and NEO-FFI and found that increased Emotional Exhaustion was correlated with low Conscientiousness, in school psychologists. The finding that high Emotional Exhaustion was associated with low Conscientiousness in school psychologists, was also noted by Huebner & Mills (1994). Alvarez suggested that this relationship was causal, and that punctuality, reliability and strength of will – all components of Conscientiousness (Costa & McRae, 1992) – are difficult to sustain when one is feeling depleted emotionally and fatigued.

However, not all of the research on personality and burnout is conclusive. Mutchler (2000) used the Myers-Briggs Type Indicator (MBTI) measure of personality and found that personality related to socio-demographic variables, for example, education level, and that in turn, these related to burnout. However, no independent relationship between burnout and personality was indicated. Mutchler stressed the need for more

research on the relationship between personality and burnout, using different personality measures. Kaden (1999) measured perfectionist personality type with the Multidimensional Perfectionism Scale (Hewitt & Flett, 1989), and found no correlation with burnout subscales. Therefore, the literature indicates that relationships between personality and burnout have been found, however, more research is needed to substantiate this finding. Furthermore, researchers differ regarding whether they view personality as an independent predictor of burnout, or whether certain personality dimensions can be exaggerated by particular stressors.

An earlier pilot study was undertaken by the current researcher (Preston, 1999), where mental health professionals' views on behaviour in ward rounds was investigated. An open-ended question asked participants, "What accounts for differences in peoples' airtime contributions?", with 'airtime' being the length of time for which people spoke. Seventy-four percent of respondents identified personality variables, such as confidence, assertiveness and shyness, as explaining why some people talk more. Thirty-five percent of answers included themes relating to profession, for example, status, discipline and role in meeting. If these answers are taken at face value, one could conclude that different professions attract different personality types. Alternatively, amount of group participation in ward rounds could be attributable to other factors. However, no studies have systematically measured personality variables in relation to different professional groups.

Organisational Factors

There are a number of variables associated with the workplace in particular that may play a part in the development and maintenance of burnout symptoms. Studies have shown that a wide variety of stressors including scheduling, conflictual demands, interactions with clients, noise, lack of support, conflict with colleagues and workload are related to staff burnout in mental heath settings (Jenkins & Ostchega, 1986; Topf & Dillon, 1988). Firth *et. al.* (1987) found correlations between high role ambiguity and burnout in a sample of psychiatric nurses. Dunn (2000) also found that role ambiguity (or role clarity) was significantly correlated with emotional exhaustion, in addition to perceived work pressure. Duquette *et. al.* (1994) found a correlation between workload and burnout. Severity of patients' problems has not been significantly correlated with burnout, although aggressive patient behaviour has been correlated with high emotional exhaustion and depersonalization scores and low scores on personal accomplishment (Kandolin, 1993). Therefore, burnout symptoms seem to be closely related to work-related stressors, with the exception of the severity of patients' problems. Martin & Schinke (1998) asked 200 family/child and psychiatric workers to complete the MBI, and additional measures, and found that burnout correlated with dissatisfaction about salary levels and promotional opportunities. Collins (2000) conducted a meta-analysis of 81 studies and examined the role of occupational stress and burnout in a wide range of clinical and non-clinical settings. Occupational stress was defined as role conflict, role ambiguity, workload, cumulative role stress, job specific stressors (for example, low salary), and work setting characteristics. Occupational stress, in particular, job specific stress, was

found to predict Emotional Exhaustion and Depersonalization, with a smaller correlation with decreased Personal Accomplishment. This finding suggests that specific jobs have particular pressures, and therefore, that different professions will experience differential levels of burnout. Finley (2000) found that the amount of direct client contact was unrelated to Emotional Exhaustion, but correlated to increased Personal Accomplishment. In conclusion, the research findings show that many organizational variables have been studied, using a variety of measures. Few conclusive findings have emerged from the literature, with the possible exception of the impact of role ambiguity on burnout.

1.2.4 Variables associated with the prevention of burnout

There are certain buffering factors thought to have a protective function against the development of burnout. Three variables in particular have been identified, hardiness, coping mechanisms and social support (Duquette *et. al.*, 1994).

Social support

Many burnout studies have investigated the role of work and home-based social support in moderating the effects of burnout. The research indicates that work-based social support is correlated with lower rates of anxiety and depression, and lower burnout scores. Lack of social support has been linked to incidence of depression and anxiety, reduced self-esteem and lower job satisfaction (Driscoll, *et. al.*, 1995). In a related vein, Flannery *et. al.* (1995) cite social support from colleagues, as integral to

treatment of posttraumatic stress disorder. Support from colleagues and support from superiors has been examined in relation to burnout in nursing staff. Hare *et. al.,* (1988) studied over 300 nursing staff in several acute and long-term units and reported that burnout was strongly negatively correlated with social support. Ito *et. al.* (1999) found that burnout scores were significantly lower for staff who felt they could discuss work problems with their supervisors, than those who could not. They concluded that supervisor support can reduce burnout among direct-care staff members. Negative perceptions of supervisor support were correlated with Emotional Exhaustion and Depersonalisation in nurses working in acute care settings (Garrett, 1999). This study suggested that social networks at work could serve a protective function during organisational change. Specific aspects of the supervisory relationship have been identified as influencing burnout levels. Nurses whose supervisors had completed positive-feedback training showed significant reductions in Emotional Exhaustion, compared to those whose supervisors did not receive training (Eastburg, *et. al.*, 1994). Therefore, the majority of findings show that use of social support appears to have an ameliorating impact on expression of burnout. Many of the studies suggest implementation of formal social support structures, (such as regular supervision, discussion groups, and so on) to facilitate use of this buffering factor.

Hardiness

The construct of personality hardiness is described as having three features: challenge, commitment and control (Kobasa, Maddi & Kahn, 1982). People who are hardy are flexible and adapt to change, they see through their obligations and they retain a sense of control over their activities. Using measures recommended by Kobasa and colleagues for assessing hardiness, a number of researchers have looked at corresponding scores on burnout measures. Topf (1989) studied 70 nurses in two different hospitals and found that hardiness correlated with resistance to burnout, i.e. the less hardy the nursing staff were, the higher the frequency of burnout. This finding was also reported by McCranie *et. al.*, (1987) using a sample of over 100 community nurses. Rich & Rich (1987) found that personality hardiness accounted for over a third in variance of burnout scores in a study with 100 nurses. A similar finding was reported by Johns (1998).

Coping mechanisms

Ceslowitz (1989) identified three coping strategies that were employed by 150 nurses from several hospitals that correlated with higher burnout levels: avoidance, escape and confronting. Positive reappraisal, problem-solving and accessing social support systems were associated with lower burnout scores and were listed as protective coping mechanisms. However, by contrast, a study using over 500 nursing staff only found one of nine coping strategies under investigation to be related to burnout levels – an anticipatory coping style (Chiriboga & Bailey, 1986). Therefore, a person who

anticipates forthcoming difficulties is less burned out than someone who imagines a problem-free work environment. This finding may indicate that anticipation of a forthcoming event may lead to some mental preparedness for it, thus minimizing the effect of the unexpected. Forsgaerde *et. al.* (2000) also noted a correlation between high coping capacity and lower burnout scores. There has been little research into this area and it may have proved interesting to incorporate it into the current study. However, Duquette *et. al.* (1994) note that there are no standardised measures to assess coping strategies, which would have affected the reliability and interpretation of any results. Furthermore, the outcome literature on cognitive-behavioural strategies demonstrates that planned, constructional and problem-oriented cognitive approaches are beneficial in reducing a variety of neurotic symptoms, and are used frequently in stress management programmes (Beck, 1995).

1.2.5 Summary

Burnout is a syndrome characterised by decreased empathy towards patients and a reduced sense of accomplishment from work, which has been documented in professionals working in clinical settings. There is some evidence to suggest that nurses experience greater levels of burnout than other professionals, and this has been most closely related to incidence of physical assault. However, extensive review of the literature revealed no inter-professional comparisons to test this theory. Exploration of demographic variables, including length of stay in post and age, have not yielded conclusive findings in relation to burnout. Use of personality measures in the study of burnout has been conducted on a wider sample of professionals. Several

studies have found correlations between burnout scores and low Conscientiousness, and high Neuroticism. Researchers agree that there is a causal relationship between personality and burnout, but differ over in which direction this exists. The investigation of organisational factors in burnout have used many different measures and only role ambiguity appears to have been regularly identified in association with burnout. Social support has been quite widely examined and the findings suggest that provision and quality of supervision and work-based social support can prevent burnout. Personality hardiness and use of certain coping strategies have also been identified as inhibiting the emergence of burnout.

1.2.6 Relationship to staff turnover, sick leave and absenteeism

Staff turnover has serious cost and service provision implications for healthcare managers, purchasers and users. Patients who spend time in mental health units and consequently, spend time with staff, use client/professional relationships as a therapeutic interaction as part of their rehabilitation. Often, these relationships are overtly used to facilitate a particular interpersonal model (Cavanagh, 1990). The importance of creating and maintaining regular and consistent staff-patient relationships is reflected in the commonly used practice of keyworking. Given the emphasis placed on the staff-client relationship and the investment that is possibly made in it, by patients, then staff turnover and absenteeism is likely to impact negatively on patients. Furthermore, there is bound to be an effect on fellow nurses when absenteeism is high. Mobley (1982) reported that staff morale can deteriorate and work patterns are affected with turnover. The relationship between burnout and

staff absenteeism and turnover has been noted by several researchers (Pines & Maslach, 1980; Lake, 2000). Finley (2000) noted that staff who scored higher on burnout measures said in response to open-ended questions, that they anticipated leaving their jobs sooner than people with lower burnout scores. A similar finding was obtained in a study of psychotherapists by Raquepaw & Miller (1989). These findings highlight not only the potential for costly personal effects of burnout, but also those for patients, team and institutions.

1.2.7 Summary

The literature on burnout has been reviewed, with reference to variables associated with its' emergence and prevention. The considerable implications, personal and institutional, have been covered. The next section will focus on multi-disciplinary teams working in mental health settings, before the aims of the current study are outlined.

1.3 Multi-Disciplinary Teams

Previous research into mental health psychiatric team functioning has been relatively small, and has focused on the study of multi-disciplinary team meetings. To build on existing research, this study also examines the functioning of multi-disciplinary teams in team meetings. Holzberg (1960) described multi-disciplinary teams as consisting of professionals from various professions whose operation in teams is characterised by equal participation in group activities and decision making. However, other

researchers have found that multi-disciplinary team members do not perceive their teams' functioning in this manner (Rintala *et. al.*, 1986).

Multi-disciplinary team meetings (MDTs) are the predominant format through which decisions about multi-professional care delivery are formulated for patients in mental health settings. They typically have an hierarchical structure where medical professionals chair the discussion and have a dominant role in decision-making (Brock & Barker, 1990). This type of organisational structure is more common in in-patient, psychiatric settings than community-based mental health teams (While & Barriball, 1999). Researchers have investigated differences in the amount of group participation each profession has, the content of the discussion in the meetings and the type of contribution each profession usually makes. The findings indicate that medical professionals occupy the majority of airtime and the content of the discussion is weighted more towards medical issues, as opposed to social or psychological issues. Also, medical professionals have greater involvement in decision-making than other professional groups (Fewtrell & Toms, 1985). Further investigations have shown that mental health professionals would prefer greater equity in discussion content and decision-making (Sanson-Fisher et. al., 1979; Rintala et. al., 1986). Team meetings that use a traditional format may result in non-medical professionals being under-utilised, which has been linked with feelings of marginalisation and under-evaluation (While & Barriball, 1999).

Brock & Barker (1990) used the Group Environment Scales (GES: Moos, 1974) to measure ratings of a team meeting's environment using a traditional meeting structure

and also a novel structure. The traditionally structured meeting had members from all the disciplines working in the unit, and the consultant psychiatrist chaired the meeting and conducted interviews with patients. The novel structure rotated the chair amongst staff from different professions, and team members took it in turn to interview patients. Following this, the traditional meeting structure was reinstated. Group Environment ratings were taken on three occasions: prior to the initial structure change; after the novel structure was implemented; and after the traditional format was re-used. Brock & Barker found that more positive ratings were recorded during the novel format, compared with the traditional format, as well as a more equal distribution of group participation and greater discussion of non-medical issues. It seems, therefore, that greater participation in discussion may result in more positive ratings of group environment. However, it is possible that the positive affect experienced as a result of these changes is related to a further variable. For example, if staff were experiencing high levels of burnout (therefore, decreased feelings of personal accomplishment, self-efficacy and depersonalization) then the experience of greater agency in team meetings may lead to a reduction in these feelings. This explanation does not negate the correlation, and potential causal relationship, between increased participation in team meetings and elevated perceptions of group environment. It simply suggests a broader context in which this change occurs, and additional factors that could have an effect. To date, there has been no research on factors outwith team meetings that may impact on this relationship. Furthermore, it is unclear whether group participation had an independently predictive effect on group variables.

1.3.1 Group Participation

Reference was made earlier in the chapter to an earlier pilot study (Preston, 1999), in which group participation (or 'airtime') during ward rounds was measured for different professions. The multi-disciplinary team consisted of professionals from nursing, psychiatry, social work, psychology, art therapy and adult education. The research was conducted in response to a concern raised by nursing staff that they were not given enough time for their contributions during ward rounds. Other factors about team meetings were also noted, including feelings of marginalisation and less weight given to the nursing viewpoint, than that of other professions. The findings indicated that psychiatry occupied the most airtime, followed closely by nurses, then others. In addition to measuring the actual length of contributions, participants were also asked to estimate how long each professions spoke for. All participants, including nurses, rated the nursing group participation as greatest, which conflicted with the initial reasons for concern, their actual length of contribution, and findings from other studies (Brock & Barker, 1990; Rintala *et. al.*, 1986). One of the reasons for this discrepancy is likely to have been due to measurement error, as the estimate for nursing airtime was gained differently from estimates of other professions' contribution. Therefore, accurate identification of nurses' contribution during ward rounds was recommended for future research, and Brock & Barker's findings highlighted the efficacy of measuring independent effects of group participation in relation to group environment ratings.

In summary, staff behaviour in team meetings and group environment ratings have been studied by a few investigators, and findings suggest that some staff members experience negative emotions in relation to their team. Only one study was identified in the literature as relating group climate with burnout, and the findings suggested that Depersonalisation correlated with one group variable: low peer cohesion (Garrett, 1999). Therefore, whilst many variables have been linked with burnout, specific factors relating to the team environment have not been extensively studied.

1.4 Conclusions

Burnout has been identified in mental health professionals, and has been linked with serious service issues, such as staff turnover and absenteeism. Staff burnout has been investigated with sociodemographic variables, personal variables and organisational variables, in an attempt to identify causal predictors of this phenomenon. The absence of standardised measures for some of these variables means that the findings from existing studies are inconclusive and hard to generalise. Other variables, such as social support and personality hardiness have been more systematically investigated, and researchers have reported similar outcomes. However, there remain some areas that require further investigation, for example, the role of personality variables such as Neuroticism and Conscientiousness. Furthermore, the current structure used in multi-disciplinary team meetings in in-patient mental health units is traditionally hierarchical, with group participation and discussion dominated by medical personnel and medical issues. Measures of group environment and anecdotal data have suggested that participants at MDTs experience these meetings negatively. The

relationship between ratings of group environment and levels of burnout has not been widely investigated. Finally, it has been suggested that different professional groups experience particular and specific stressors, and therefore feelings of stress or burnout may vary with profession. Concurrent feelings of anxiety and depression may also differ across professional group. The present study will investigate burnout; Group Environment; personality variables; symptoms of anxiety and depression; and group participation during ward rounds, in a selected sample of mental health professionals.

1.4.1 Aims and research questions

The aim of the current study is to identify burnout along with other stress-related conditions, such as anxiety and depression, in nursing and non-nursing groups. The relationship between burnout and group environment, personality and group participation in ward rounds, will be examined. The main research questions are:

1 What is the degree of burnout, and anxious and depressive symptoms, in mental health professionals?

2 How do mental health professionals rate the group environment of their multi-disciplinary teams?

3 Does the amount of group participation during multi-disciplinary team meetings vary with professional group?

4 Is burnout predicted by group environment, level of group participation and personality variables?

CHAPTER TWO

METHOD

2.1 Overview

Sixty-six mental health professionals working in acute psychiatric wards were invited to complete standardised questionnaires rating burnout, group environment, health and personality traits, in a structured interview. A series of additional questions devised by the researcher was also administered. Participants came from nine multi-disciplinary teams, working in eight units across Central London. One ward round from each team was attended and a measure of team members' group participation was obtained.

2.2 Setting

Mental health professionals working in in-patient psychiatric settings in hospitals in the North Central Thames area were invited to participate. Eight psychiatric units throughout Camden and Islington NHS Trust were involved in the study, from which nine teams participated.

The inclusion criteria for teams were as follows:

- Teams that use a traditional structure in their multi-disciplinary team meetings where medical personnel chair and lead the discussion.
- Teams which have staff from medical, nursing and occupational therapy attending the multi-disciplinary team meetings.

The inclusion criteria for participants were as follows:

- Ages should range between 18 and 65 years.
- Full-time members of staff and/or staff members who have worked in the unit for at least 1 month.
- Participants will include those who regularly participate in multi-disciplinary team meetings.

The assistant locality directors of Camden & Islington NHS were contacted by telephone to outline the project, following which, with their consent, research protocols (Appendix 4) were sent to them. With the locality directors' permission, ward managers were contacted by telephone to arrange an introductory meeting, during which the purpose of the study and the procedures involved were outlined. There were thirteen in-patient psychiatric units in Camden & Islington NHS Trust, nine of which were acute units, and the remaining four were rehabilitation wards. The ward managers of eight acute units and one rehabilitation unit were met with, and given copies of the research protocol, consent form (Appendix 2) and information

sheet (Appendix 3). Due to managerial staffing changes, the remaining acute unit was not included in the study. Consistency of setting was considered important, and it should be noted that the researcher had been informed that the rehabilitation ward that was asked to participate was actually an acute ward.

The managers of the eight acute units and the one rehabilitation unit were contacted and all managers consented to participate. Once consent from the managers had been obtained, for the teams meeting the selection criteria, copies of consent forms and information sheets were provided for distribution amongst the individual team members. The consultant psychiatrists working in the units were then contacted by telephone. One of the acute units had two psychiatric teams working in the same ward, and both teams consented to participate. The consultant psychiatrist from a second acute unit declined to participate, therefore, nine teams were recruited in total, from eight units.

2.3 Demographic

The gender and professional distribution of the sample population is illustrated in Table 2.1. Gender was roughly evenly distributed amongst different professions, with slight trends towards more males in nursing and consultant psychiatric posts, and more females employed as nursing managers, junior doctors and occupational therapists. The age range of the sample was 25-63 years, with most participants in their 20s and 30s.

Table 2.1: Gender and Professional Distribution of the sample

Profession	Gender		Total
	Female	Male	
Nurses	14	21	35
Consultant Psychiatrists	3	6	9
Nurse Managers	5	2	7
Junior Doctors	6	4	10
OTs	4	1	5
Total	32	33	66

2.4 Ethical Approval

The Camden & Islington NHS Trust Research Ethics committee was approached and ethical approval for the study was obtained (see Appendix 1 for letter of approval).

2.5 Procedure

For the first four teams, one multi-disciplinary team meeting from each team was tape-recorded, to gain a measure of group participation. The researcher arrived at the unit before the meeting to set up the recording equipment in an unobtrusive location at the side of the room. The tape recorder was placed underneath a chair, to ensure that it was largely out of view. It has been shown that the size of a recording device is

correlated with the magnitude of the reactivity effect (Rintala *et. al.*, 1986). Therefore, using a relatively small recorder and keeping it largely out of sight was intended to minimize any reactivity effect from being audiotaped. All teams used a format where patients attended part of the meeting. The tape recorder was turned off before patients entered the room and was only turned back on again, once they had left. The first time each team member spoke was time coded, for reference during future data analysis. The tapes were analysed by playing back the recordings of the meeting and, using a stopwatch, timing each member's contribution to the discussion. Only contributions lasting 2 seconds and over were included. The number of contributions each person made was summed and calculated as a percentage of the total number of contributions.

During the third and fourth meetings attended by the researcher, a measure of team members' group participation was also obtained using momentary time sampling. Every ten seconds, the researcher noted down the (anonymously coded) identity of whoever was talking at that moment. This was done for the duration of the ward round, with the exception of patients' attendance. Subsequently, the length of contribution score obtained from the tape recording method was compared with the score from momentary time sampling. There were no significant differences between mean totals of length of contribution and therefore all further group participation ratings for future teams were measured using the momentary time sampling technique. Each team member's contribution was calculated by summing the number of contributions they made and expressed as a percentage of all the contributions. After the taped meetings, an individual meeting with each of the participants who had

been present was arranged, to complete the questionnaires. The interviews were arranged as soon as possible after the team meeting, to aid more accurate memory recall when answering items concerning the meeting. Eighty-four percent of participants were interviewed within one week of the team meeting. The interviews took approximately 30 to 45 minutes, during which the participants were asked to complete several self-report measures and the set of questions devised by the researcher. A smaller number of participants attended the team meetings than was expected, so meetings were set up with additional team members who met the inclusion criteria to complete the self-report measures. Therefore, the measurement of group participation applied to a subset of the whole sample. Furthermore, there were non-team members present at the team meetings that the researcher attended, including medical students, community psychiatric nurses, pharmacists and social workers. As these professionals were not regular members of the in-patient team, they were not included in the overall sample.

2.6 Measures

2.6.1 Maslach Burnout Inventory (Appendix 5)

The Maslach Burnout Inventory (MBI: Maslach & Jackson, 1986) was constructed to measure burnout in professionals who work intensively with other people, including, doctors, teachers, social workers, nurses, psychologists, occupational therapists and probation officers. It is comprised of 3 subscales, Emotional Exhaustion, Depersonalisation and Personal Accomplishment. There are 25 items in total, which

are personal statements of feelings or attitudes. Items are rated both on frequency and intensity. Reponses are recorded on a 6-point Likert scale, ranging from 1 being 'a few times a year' to 6 being 'every day'. Item examples are, "I feel used up at the end of the workday" and, "I have accomplished many worthwhile things in this job". Respondents' scores can be sorted into three categories: low, moderate and high, for each subscale. The category ranges for each subscale are shown in Table 2.2.

Table 2.2: Category ranges for the three subscales of the MBI

	LOW	MODERATE	HIGH
Emotional Exhaustion	0-16	17-26	27-54
Depersonalisation	0-6	7-12	13-30
Personal Accomplishment	39-48	32-38	0-31

Emotional Exhaustion, the first subscale, has 9 items, which explore feelings of being emotionally stretched and fatigued by work. The second subscale, Depersonalisation, has 5 items, which refer to staff feeling indifferent and dispassionate towards their clients. The last subscale, Personal Accomplishment, has 8 items. These relate to feelings of competence and achievement in the workplace. The three subscales are considered to measure separate but related aspects of burnout. Therefore, correlations exist between the subscales: Emotional Exhaustion and Depersonalisation have a stronger correlation, in line with their theorized relationship, and both subscales have

a smaller correlation with Personal Accomplishment. (Maslach & Jackson, 1981).

The data presented on the psychometric properties of the MBI indicate that the internal validity of the scale is quite high (Cronbach's coefficient alpha: Emotional Exhaustion = .90, Depersonalisation = .79, Personal Accomplishment = .71). The test-retest reliability coefficients were: Emotional Exhaustion = .82, Depersonalisation = .60, Personal Accomplishment = .80 (Maslach & Jackson, 1981). The MBIs convergent validity was tested by comparison with behavioural ratings by a significant other (work colleague and spouse) and the results showed strong correlations between the two measures (Maslach & Jackson, 1986). Finally, the MBI was also administered with the Crowne-Marlowe (1964) Social Desirability Scale; none of the subscales were significantly correlated (Maslach & Jackson, 1986).

2.6.2 Group Environment Scale (Appendix 6)

The Group Environment Scale (GES: Moos, 1981) is used to measure group climate or social environment. It was designed for psychotherapeutic, social and/or task orientated groups. It contains 90 items regarding team members' perceptions of the group. Respondents are asked to answer true or false to statements such as, "There is a feeling of unity and cohesion in this group". There are three dimensions which cover 10 subscales: Relationships *(Cohesion, Leader Support, Expressiveness)*, Personal Growth *(Independence, Task Orientation, Self-Discovery, Anger & Aggression)* and System Maintenance & System Change *(Order & Organisation, Leader Control, Innovation)*. Table 2.3 provides definitions of the 10 subscales.

Table 2.3: Group Environment Scale Subscale Descriptions

Subscale	Description
Relationship Dimensions	
Cohesion	The extent of members' involvement and participation in the group; of their affiliation and commitment to the group; of the help, manifest concern, and friendship displayed to each other
Leader Support	The amount of help, manifest concern, and friendship displayed by the leader to the members
Expressiveness	The extent to which freedom of action and expression of feelings are encouraged
Personal Growth Dimensions	
Independence	The extent to which the group tolerates and/or encourages independent action and expression in its' members
Task Orientation	The degree of emphasis on practical, concrete, "down-to-earth" tasks, decision-making or training
Self-Discovery	The extent to which the group tolerates and/or encourages members' revelation and discussion of personal detail
Anger and Aggression	The extent to which the group tolerates and/or encourages open expression of negative feelings and inter-member disagreement
System Maintenance and System Change Dimensions	
Order and Organisation	The degree to which the activities of the group are formalized and structured; the degree of explicitness of group rules, norms and sanctions
Leader Control	The extent to which the tasks of directing the group, making decisions, and enforcing rules are assigned to the leader
Innovation	The extent to which the group tolerates and/or facilitates diversity and change in its own functions and activities

From the Combined Preliminary Manual for the Family, Work & Group Environment Scales, pp.27.

The three dimensions were taken from the environmental press literature (Moos, 1974a). The Relationships dimension covers friendship between group members, degree of involvement in the group, the amount of support received by group members from the group leader(s), and the level of free expression within these relationships. Personal Growth or Accomplishment refers to the type of self-development of group members. These items examine the amount of individual independence that is encouraged, the group's actions and their pragmatic value, to what extent emotions and personal issues are explored, with particular interest in how much weight is given to anger. The System Maintenance and Change subscales examine the degree to which group structure is maintained in a functional and cohesive way and also the amount of structural change and improvement that is engaged in.

The internal consistency of the subscales was tested using Kuder-Richardson Formula 20 analysis, and showed that the average correlation coefficient was .76 (Moos, 1981). The average item-subscale correlations ranged from .42 to .65, with a mean correlation of .57, which is satisfactory. None of the intercorrelations between subscales was sufficient to justify collapsing any scales, when tested on a sample of n=188 (Moos, 1981).

2.6.3 NEO-Five Factor Inventory (Appendix 7)

The NEO Five Factor Personality Inventory (Form S) (NEO-FFI: Costa & McCrae, 1992) is a measure of personality traits that are presumed to be stable across time. It is a short form of the NEO Personality Inventory (Costa & McCrae, 1985b).

This measure has five subscales: neuroticism, extraversion, openness, agreeableness and conscientiousness. There are 12 items in each subscale, with 60 questions overall. A 5-point Likert scale is used to record responses, ranging from strongly disagree, to neutral to strongly agree. Examples of the items are, 'I am not a worrier' and 'I try to be courteous to everyone I meet'. Scores can be classified into five categories: very low, low, average, high, very high. The category ranges for each subscale are shown in Table 2.4. These ranges differ slightly for males and females.

The first subscale, Neuroticism, relates to how often people experience affective symptoms like those associated with anxiety and depression. Extraversion is the second subscale and is based around Eyesenck's (Eysenck & Eysenck, 1964) definition, which combines a desire to be in company and also a high-spirited, carefree nature. The third subscale, Openness, measures broad mindedness and flexibility of approach. Agreeableness is the fourth subscale and relates to competitive vs. cooperative attitudes towards other people and a generalised politeness and 'niceness'. Conscientiousness is the final subscale and covers employing methodical approaches, orderliness and self-discipline.

Table 2.4: Category ranges for the five subscales of the NEO

	VERY LOW		LOW		AVERAGE		HIGH		VERY HIGH	
	M	**F**	**M**	**F**	**M**	**F**	**M**	**F**	**M**	**F**
Neuroticism	<6	<8	7-13	9-16	14-21	17-24	22-29	25-32	30+	33+
Extroversion	<18	<19	19-24	20-24	25-30	25-31	31-36	31-37	37+	38+
Openness	<18	<17	19-23	18-23	24-30	24-30	31-36	31-36	37+	37+
Agreeableness	<24	<26	25-29	27-31	30-34	32-36	35-39	37-41	40+	42+
Conscientiousness	<24	<26	25-30	27-31	31-37	32-38	38-43	39-43	44+	44+

As the NEO-Five Factor Inventory (item n=60) is a short form of the Revised NEO Personality Inventory (item n=240), the reliability and validity checks of the NEO-FFI were assessed in relation to reliability and validity of the NEO PI-R. Therefore, brief summary of the psychometric properties of the NEO PI-R will be given, before description of the properties of the NEO-FFI. The internal consistency of the five personality domains of the NEO PI-R is high, with the coefficient alpha ranging from .86 to .92.

Test-retest reliability of the NEO-FFI was obtained in a sample of n=208 and coefficients for Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness were .79, .79, .80, .75 and .83, respectively (significant at $p<.001$).

2.6.4 General Health Questionnaire (Appendix 8)

The General Health Questionnaire (GHQ; Goldberg & Williams, 1988) was designed to assess neurotic psychiatric problems in community and mental health settings. It measures anxiety/insomnia, severe depression, somatic problems and social dysfunction. It has been used extensively to assess levels of psychiatric distress (Deary et. al., 1994). The original GHQ has 56 items (Goldberg & Williams, 1988), and several shorter versions have been subsequently published. For the current study, the 12-item version (GHQ-12, Goldberg, 1992) was used. This scale, along with the other versions, has been well standardised and has been shown to have good reliability and validity values (Goldberg, 1992). Participants can respond using a 4-point Likert scale, with frequency values ranging from 'not at all' to 'much more than

usual'. Example items include, 'Have you recently felt you couldn't overcome your difficulties?' and 'Have you recently been able to concentrate on whatever you're doing?' A score of 3/4 out of 12 has been associated with caseness levels of anxiety disorders and depression (Goldberg, 1992).

The GHQ-12 is shortened form of the General Health Questionnaire – 60 item version, which has been well validated. Several studies have reported that the internal validity of the measure is strong, with Cronbach's alpha ranging from .82 to .93 (Goldberg & Williams, 1988). Split half and test-retest reliability and validity coefficients for the GHQ-12 have been found to range from .73 to .95. Therefore, the GHQ-12 has been shown to have robust psychometric properties.

2.6.5 Additional questions (Appendix 9)

Participants were also asked to complete a number of additional questions designed for this study. The main focus of these questions was on feelings of burnout and team-related information, including asking staff to identify causes of and solutions to burnout.

CHAPTER THREE

RESULTS

3.1 Overview

This study aimed to investigate a number of exploratory hypotheses that focus primarily on the relationship between burnout and group environment in mental health professionals. Personality, physical health symptoms and group participation in ward rounds will also be investigated and their association with burnout and group environment will be explored. Descriptive analysis of the four measures will be reviewed in turn, followed by analysis of interaction effects. The qualitative data gained from the additional questions asked by the researcher, will be mainly reported in Chapter Four.

3.2 Burnout and Physical Health Symptoms

3.2.1 Overall pattern of burnout scores

Scores on the three subscales of the Maslach Burnout Inventory were classified into low, medium and high, with scores in the high category suggesting syndromal levels of burnout. For the first two subscales, Emotional Exhaustion and Depersonalization, high scores were allocated to the high category. The third subscale, Personal Accomplishment, is scored in reverse, so high subscale scores are allocated to the low

distress category (i.e. high scores represent a high level of accomplishment and therefore a low level of distress). (For the category ranges of each subscale, see Table 2.2 in the Chapter Two, pg. 38).

The number of participants in each category for all three subscales is shown in Table 3.1. The data indicates that 71% of participants showed moderate or high levels of Emotional Exhaustion. On the Depersonalization subscale, most of the scores fell into the moderate category. Fewer participants (20%) scored in the high range on this subscale than on Emotional Exhaustion.

Table 3.1: Maslach Burnout Inventory subscale scores

Subscale	Low	Moderate	High
Emotional Exhaustion	19 (29%)	24 (36%)	23 (35%)
Depersonalisation	23 (35%)	30 (46%)	13 (20%)
Personal Accomplishment[a]	26 (39%)	22 (33%)	18 (27%)

Note: [a] high score indicates high degree of personal accomplishment, i.e. low pathology.

Over a third of the sample scored in the lowest category for Personal Accomplishment, and 72% overall showed moderate to low levels. Less than a third of participants scored in the low distress category for all three subscales. Mean scores of the current sample are compared with mean scores of mental health professionals gained from the normative data from the MBI, shown in Table 3.2.

Table 3.2: Comparison of population means with norms

Subscale	Sample (N=66)		Norm (N=730)		t (795)
	M	SD	M	SD	
Emotional Exhaustion	24.11	11.54	16.89	8.90	4.95***
Depersonalisation	8.56	5.09	5.72	4.62	4.37***
Personal Accomplishment[a]	35.39	6.68	30.87	6.37	6.18***

Note: [a] high score indicates high degree of personal accomplishment, i.e. low pathology.

*p<.05, **p<.01, ***p<.001

The current sample had higher scores on all three subscales than the normative sample. The greatest difference was on the Emotional Exhaustion subscale. T-test analysis revealed that all differences were significant at p<.001, indicating that the current sample was significantly more burnt out than the normative sample.

The relationships between the subscales were investigated using correlation analysis: Emotional Exhaustion was positively correlated with Depersonalization ($r=.49$, $p<.01$), and correlated negatively with Personal Accomplishment ($r=-.25$, $p<.05$). Depersonalisation and Personal Accomplishment were negatively correlated ($r=-.34$, $p<.01$). Therefore, greater levels of Emotional Exhaustion and Depersonalization were associated with lower levels of Personal Accomplishment. However, the correlations were sufficiently low to justify their retention as three separate variables for further analysis.

3.2.2 Do nurses experience greater levels of burnout than non-nursing mental health professionals?

Mean scores on the MBI subscales for nurses and non-nurses are shown in Table 3.3. Scores for Depersonalisation and Personal Accomplishment were approximately the same for the two groups. On the Emotional Exhaustion subscale, nurses showed significantly higher scores than non-nursing professionals.

Table 3.3: Nurses and non-nurses' scores on the three subscales of the Maslach Burnout Inventory

	Nurse		Non-Nurse		t (64)
	M	**SD**	**M**	**SD**	
Emotional Exhaustion	26.68	12.90	20.83	8.69	2.10*
Depersonalisation	8.81	5.68	8.24	4.31	.45
Personal Accomplishment	34.73	7.53	36.24	5.42	.91

*p<.05

Table 3.4 shows the number of nurses and non-nurses that fell into the three categories on the MBI subscales. On the Emotional Exhaustion subscale 19% more nursing personnel scored in the high range than non-nurses and a similar trend was seen on the Personal Accomplishment subscale. For Depersonalisation, the distribution across categories appears to be roughly the same for nurses and non-nurses. Categorical differences were tested using Pearsons' Chi-Square analysis, which showed there were no significant differences between nurses and non-nurses on burnout category.

Table 3.4: Nurses and Non-Nurses' MBI scores across category

Subscale	Low		Moderate		High		x^2 (2)
	Nurses	Non-Nurses	Nurses	Non-Nurses	Nurses	Non-Nurses	
Emotional Exhaustion	9	10	12	12	16	7	2.64
Depersonalisation	12	11	18	12	7	6	3.56
Personal Accomplishment[a]	16	10	8	14	13	5	5.69
Total	37	29	37	29	37	29	

Note: [a]Low category indicates high degree of personal accomplishment.

3.2.3 General Health Scores across the sample

The General Health Questionnaire (12 item version) (Goldberg & Williams, 1978) measures somatic, anxiety and depressive symptoms. A score of 3/4 out of 12 indicates caseness levels of symptomatology, and for the current purposes, 3.5 was used as the cut-off point. The mean score on the GHQ was 2.78 (3.05), with scores ranging from zero to 11. Thirty percent of the population scored above the symptom caseness level.

3.2.4 Do nurses experience higher levels of anxiety and depression than non-nursing mental health professionals?

Nurses mean score was 3.03 (3.00) and non-nurses' mean was 2.36 (3.12), which was not significantly different. Caseness levels differed slightly for the two groups: 35% of nurses were above caseness level, compared to 22% of non-nurses, however this difference was not significant.

3.2.5 Summary

Therefore, over two thirds of the sample showed moderate to high levels of burnout, which is significantly greater than the normative data for this population. Nurses showed significantly greater levels of Emotional Exhaustion than non-nurses. There were no significant differences between nurses and non-nurses for the other burnout subscales, or on categorical levels of burnout. Participants' scores on the General Health Questionnaire were not significantly greater than the norm, and there were no differences between professional group. However it is noteworthy that 30% of the sample showed caseness levels of physical health symptoms.

3.3 Group Environment

3.3.1 Group Environment Scores across the whole sample

The Group Environment scale (Moos, 1974) has 10 subscales, which are viewed as measuring separate, albeit related, aspects of group functioning. The three categories which subscales fall into are: Relationships (Cohesion, Leader Support and Expressiveness), Personal Growth (Independence, Task Orientation, Self-Discovery, Anger and Aggression) and System Maintenance and System Change (Openness and Organisation, Leader Control and Innovation). It should be emphasised that the three dimensions of the GES are *theoretical* distinctions and the subscales have not been statistically related to these dimensions. (For descriptions of the GES subscales, see Table 2.3 in Chapter Two, pg. 40).

Table 3.5 presents the means, standard deviations and range of scores for the Group Environment Scale. Groups were rated with high Task Orientation and above average Cohesion, Leader Support and Independence. Lowest ratings were found on Self-Discovery, Anger and Aggression and Innovation.

Table 3.5: Mean scores on Group Environment subscales

GES Subscale	Mean	SD	Range
Cohesion	5.94	2.51	0-9
Leader support	6.28	2.66	0-9
Expressiveness	4.58	1.88	1-9
Independence	5.92	1.65	2-9
Task orientation	7.26	1.95	1-9
Self discovery	3.58	2.24	0-9
Anger and aggression	3.92	2.54	0-9
Order and organisation	5.26	2.46	0-9
Leader control	5.32	2.07	0-9
Innovation	3.98	2.11	0-9

Correlation strength

Table 3.6 illustrates that there were a large number of significant correlations between Group Environment subscales. The strongest correlations were between Cohesion and Task Orientation, Cohesion and Leader Support, and Cohesion and Order and Organisation. In fact, scores for group Cohesion correlated significantly with all the Group Environment subscales, except for Leader Control. Leader Support and Cohesion correlated significantly with the same subscales, although it is interesting to

Table 3.6: Correlation values between GES subscales

	Leader Support	Expressiveness	Independence	Task Orientation	Self-Discovery	Anger and Aggression	Order and Organisation	Leader Control	Innovation
Cohesion	.60**	.50**	.50**	.68**	.49**	-.32**	.60**	.03	.50**
Leader Support		.33**	.48**	.44**	.45**	-.19	.42**	-.21	.37**
Expressiveness			.49**	.21	.41**	.05	.38**	-.09	.38**
Independence				.32**	.31*	-.19	.29*	-.25*	.35**
Task Orientation					.29*	-.37**	.50**	-.00	.33**
Self-Discovery						.11	.13	-.08	.51**
Anger and Aggression							-.49**	.06	.02
Order and Organisation								.16	.19
Leader Control									-.19

* p<.05, ** p<.01

note that, consistently, Cohesion had the strongest relationships. Furthermore, ratings of Leader Support did not correlate with the expression of negative feelings, like Anger and Aggression. Also, Leader Control – the degree to which direction of group process and decision-making are controlled by the Leader - did not correlate with any other subscales. High Anger and Aggression was associated with low Cohesion, low Task Orientation and low Order and Organisation.

Regression analyses

As there were a large number of correlations between the Group Environment subscales a factor analysis of the subscales was performed. The extraction method utilized was principal component analysis and a varimax rotation method using Kaiser normalization yielded three factors, converging in 4 iterations. However, not enough of the group subscales loaded clearly on a single factor to yield reliably distinct factors. Therefore, multiple regression analysis was used as an alternative method of investigating the relationships between the group environment variables. The subscales that held the greatest number of correlations were classified as dependent variables, namely, Cohesion and Leader Support, and the remaining group subscales were treated as independent variables. Anger and Aggression was also investigated as a dependent variable, as it seemed the most negative measure, and thus important to investigate in more detail. Only variables that were correlated at $p<.01$ were included in these analyses.

Table 3.7 shows the coefficient values from the multiple regression analysis of Cohesion and correlated group variables. Overall, the regression was significant (R^2=.72; F(8,56)=18.31, p<.001) and Task Orientation was the only subscale that independently predicted Cohesion scores.

Table 3.7: Coefficient values of Cohesion and correlated group variables

Variable	B	Beta	t (64)
Leader support	.14	.14	1.55
Expressiveness	.22	.17	1.75
Independence	.11	.07	.77
Task orientation	.45	.35	3.94***
Self discovery	.18	.16	1.71
Anger and aggression	-.08	-.08	.90
Order and organisation	.20	.20	2.06*
Innovation	.14	.12	1.40

*p<.05, **p<.01, ***p<.001

Table 3.8 shows the coefficient values of the regression on Leader Support and correlated group variables. The regression was significant overall (R^2=.43; F(6,58)=7.23, p<.001) and Independence had an independently predictive effect.

Table 3.8: Coefficient values of Leader Support and correlated group variables

Variable	B	Beta	t (64)
Cohesion	.29	.29	1.53
Expressiveness	-.16	-.11	.87
Independence	.41	.25	2.12*
Task orientation	.06	.04	.30
Self discovery	.28	.23	1.86
Order and organisation	.18	.17	1.28
Innovation	.02	.02	.16

*p<.05

Table 3.9 shows that Order and Organisation had an independent effect on Anger and Aggression, and the analysis indicated that group variables had a significant overall effect (R^2=.26; F(3,61)=7.24, p<.001).

Table 3.9: Coefficient values of Anger and Aggression and correlated group variables

Variable	B	Beta	t (64)
Cohesion	.08	.08	.47
Task orientation	-.27	-.21	-1.35
Order and organisation	-.45	-.43	-3.14**

*p<.05, **p<.01

3.3.2 Does professional group predict differential ratings on Group Environment?

Scores for the GES subscales for nurses and non-nurses are illustrated in Table 3.10. The pattern of ratings across the two groups was relatively similar for most group subscales, with Task Orientation rated as the highest group variable. Generally, nurses gave lower ratings than non-nurses for most subscales. Nurses had

significantly higher ratings on Anger and Aggression and lower Order and Organisation than non-nurses.

Table 3.10: Mean scores on GES subscales for nurses and non-nurses

Subscale	Nurses		Non-Nurses		
	M	SD	M	SD	t (63)
Cohesion	5.38	2.68	6.68	2.09	2.12*
Leader support	6.11	2.66	6.50	2.69	.59
Expressiveness	4.14	1.81	5.18	1.83	2.29*
Independence	5.59	1.66	6.36	1.57	1.88
Task orientation	6.81	2.18	7.86	1.41	2.21*
Self discovery	3.95	2.40	3.11	1.95	1.51
Anger and aggression	4.68	2.47	2.93	2.31	2.90**
Order and organisation	4.35	2.51	6.46	1.84	3.76***
Leader control	5.38	2.05	5.25	2.14	.25
Innovation	4.08	2.25	3.86	1.94	.42

*p<.05, **p<.01, ***p<.001

3.3.3 Summary

The number and strength of correlations between Cohesion and other Group Environment variables, suggests that Cohesion was a particularly salient variable in this population. In fact, nearly three quarters of variance on Cohesion scores could be accounted for by other group variables. Forty-six percent of Leader Support was related to other group variables. Just under a third of variance in Anger and Aggression was accounted for by three group variables, and angry feelings were independently significantly predicted by Order and Organisation. The most significant differences between nurses and non-nurses on Group Environment were on Anger and Aggression, and Order and Organisation.

3.4 Personality

3.4.1 Personality variables across the sample

The NEO-Five Factor Inventory (NEO-FFI) was used to measure the five personality traits of Neuroticism, Extroversion, Openness, Agreeableness and Conscientiousness. Scores can be allocated into five categories, which range from very low, low, average, high to very high. (For the category ranges of each subscale, see Table 2.4 in Chapter Two, pg. 43).

Table 3.11 presents the distribution of scores for the five personality variables, across category, for the whole sample. The data indicates that overall, participants scored

highest on Openness and lowest on Conscientiousness. Roughly two thirds of the population scored average or below on the Neuroticism and Agreeableness subscales. Approximately half the sample scored in the high range for Openness and it is interesting to note nearly 30% of the sample scored in the 'very low' range for conscientiousness.

Table 3.11: Number and percentage of participants' Personality scores across category

Trait	Very Low	Low	Average	High	Very High
Neuroticism	2 (3%)	19 (30%)	21 (33%)	14 (22%)	8 (12%)
Extroversion	4 (6%)	11 (17%)	21 (33%)	24 (38%)	4 (6%)
Openness	0	5 (8%)	15 (23%)	30 (47%)	14 (22%)
Agreeableness	5 (8%)	19 (30%)	24 (38%)	14 (22%)	2 (3%)
Conscientiousness	17 (27%)	15 (23%)	24 (38%)	8 (13%)	0

The normative data is presented with the current sample means in Table 3.12. T-test analysis indicated that there were no significant differences between means for Neuroticism, Extroversion and Agreeableness. However, the current sample was significantly more open than the normative sample ($t(211)=-6.44$, $p<.01$) and significantly less conscientious ($t(211)=4.197$, $p<.01$).

Table 3.12: Comparison of population means with norms

Subscale	Sample (N=65)		Norm (N=148)		t (211)
	M	SD	M	SD	
Neuroticism	20.20	7.89	19.07	7.68	.10
Extroversion	28.97	6.38	27.69	5.85	1.62
Openness	32.45	5.58	27.03	5.84	6.44***
Agreeableness	31.97	4.57	32.84	4.97	.12
Conscientiousness	30.78	6.19	34.57	5.88	4.18***

*p<.05, **p<.01, ***p<.001

Correlation analysis on the NEO subscales indicated that participants' responses on Neuroticism correlated negatively with Extroversion (r=-.54, p<.001) and Conscientiousness (r=-.26, p<.04). Also, Extroversion correlated negatively with Openness (r=-.27, p<.03)

3.4.2 Does personality vary with profession?

The raw data showed no substantial differences between nurses and non-nurses scores on the NEO-FFI, and t-test analysis confirmed that there were no significant differences between groups on personality variables.

3.4.3 Summary

The results indicate that the participants scored significantly higher on Openness, and significantly lower in Conscientiousness, than the normative sample. There were no significant differences between nurses and non-nurses on personality measures.

3.5 Group Participation

Participants' behaviour in ward rounds was assessed by measuring how long people talked for – individual 'airtime' - through tape recordings and momentary time sampling. Fewer team members than expected attended the team meetings, therefore, the findings on group participation refer to a subset of the sample. Out of sixty-six participants in total, thirty-eight attended the ward rounds that the researcher attended.

Findings from the additional questions indicate that 58% of participants said the multi-disciplinary team meetings attended by the researcher were "not at all" different from usual. Thirty-one percent said that they were "a bit" different, and 11% reported that they were "quite a lot" different from usual. No participants rated the meetings as "a lot" or "very much" different from usual.

Reactivity of measurement was also assessed in the additional questions. Seventy-eight percent of participants said that group participation being recorded made "no difference" to how much they said. Nineteen percent said recording made "a little bit" of difference, and 3% said it made "quite a lot" of difference. None of the participants said that recording group participation made "a lot" or "very much" difference to their length of contribution.

3.5.1 Does amount of group participation during ward rounds depend on professional group?

The length of contributions during ward rounds was recorded for each professional group, as shown in Table 3.13. Consultant psychiatrists spoke for about 40% of the time, the mean medical contribution overall being 60%. Nurses' participation was the next greatest, and they spoke for approximately half the length of time than medical staff. Occupational Therapists contributed less than 'Others', who consisted of community psychiatric nurses, social workers, support workers, pharmacists, psychotherapists and medical students.

Table 3.13: Percentage of group participation across profession

Team	Consultant Psychiatrists	Junior Doctors	Nurses	Occupational Therapists	Other
1	34	15	50	1	N/A
2	34	22	31	8	5
3	23	46	28	3	N/A
4	40	43	11	N/A	6
5	47	7	24	N/A	22
6	54	10	25	N/A	11
7	55	22	15	N/A	8
8	42	3	36	15	4
9	57	16	18	3	6
MEAN	43	20	26	4	7

T-test analysis showed that there was a significant difference between mean contribution time, for nurses and non-nurses ($t(35)=2.15$, $p<.05$).

3.6 Correlational Analysis

The descriptive data indicates that there were some differences between professional groups on burnout and group environment measures, but no differences in personality. The large majority of the participants did not display symptoms of anxiety or depression. Medical staff occupied 60% of airtime in ward rounds, non-nursing personnel taking up 66% in total. Now the descriptive data has been covered, interaction effects between burnout, group environment, personality, GHQ scores and group participation will be explored. The relationships between the independent variables - Group Environment, Personality and Group Participation - will be considered first, and then related to the dependent variables, Burnout and General Health scores

3.6.1 Does Group Environment correlate with Personality?

The correlation values between group environment and personality variables are indicated in Table 3.14. There were not many significant correlations between the subscales of these two measures, and in fact, only four correlations were significant at $p<.01$. Of all the group variables, Anger and Aggression and Order and Organisation correlated most strongly with personality. Anger and Aggression correlated positively with Neuroticism and negatively with Agreeableness. Order and Organisation significantly correlated negatively with Neuroticism and positively with Extroversion and Agreeableness. Agreeableness was significantly correlated with six group

Table 3.14: Correlation values between Personality variables and Group Environment

Subscale	Cohesion	Leader support	Expressiveness	Independence	Task orientation	Self-discovery	Anger and aggression	Order and organisation	Leader control	Innovation
Neuroticism	-.23	-.25*	.01	-.17	-.17	.04	.32**	-.44**	-.12	-.17
Extrovert	.13	.24	-.02	.20	.11	.10	-.10	.31*	.02	.18
Openness	.05	-.12	.14	-.07	-.02	-.13	.02	.05	.14	.02
Agreeableness	.33**	.18	.29*	.19	.29*	.04	-.34**	.32*	-.08	.26*
Conscientiousness	-.11	-.01	.01	-.18	-.08	-.08	-.02	.21	.07	-.16

*p<.05, **p<.01

environment variables, although only the correlation with Cohesion was significant at $p<.01$. Openness and Conscientiousness did not significantly correlate with any group environment variables.

Earlier analysis indicated that Order and Organisation predicted scores on Anger and Aggression. As Neuroticism correlated significantly with both these variables, hierarchical regression analysis was performed to assess the nature of this relationship. Table 3.15 shows that the group variables significantly predicted Neuroticism scores and Order and Organisation accounted for most of the variance. The coefficient values indicate that Order and Organisation independently predicted Neuroticism ($t(64)=2.92$, $p<.01$).

Table 3.15: Hierarchical multiple regression analysis of Neuroticism and correlated group variables

Variable	R^2	R^2 change	F value for R^2 change	Overall F value
Neuroticism				
Order and Organisation	.20	.20	15.38***	15.38***
Anger and Aggression	.21	.01	1.08	8.23***

*p<.05, **p<.01, ***p<.001

The six group variables that were significantly correlated with Agreeableness had a significant predictive effect (R^2=.24; F(6,58)=3.01, p<.01) and Table 3.16 shows that low Anger and Aggression significantly independently predicted high Agreeableness.

Table 3.16: Coefficient values of Agreeableness and correlated group variables

Variable	B	Beta	t (64)
Cohesion	-.11	-.06	.31
Expressiveness	.62	.25	1.74
Task orientation	.25	.10	.64
Anger and aggression	-.58	-.32	2.28*
Order and organisation	.04	.02	.12
Innovation	.32	.15	1.20

*p<.05

3.6.2 Does Group Participation correlate with burnout, Group Environment, General Health scores or Personality?

Earlier analysis showed that nurses talked for significantly less of the time, compared to non-nursing staff, however, correlation analysis revealed that there were no significant correlations between length of contribution and burnout, General Health scores, Group Environment and personality variables.

3.6.3 Summary

Anger and Aggression and Order and Organisation appeared to be the most salient group variables in relation to personality. Regression analysis showed that Neuroticism was independently predicted by Order and Organisation, and Anger and Aggression predicted Agreeableness. Agreeableness and Neuroticism held the most significant and/or strongest relationships with group variables. Group participation was not correlated with group environment or personality. Before the relationships between the independent and dependent variables are examined, the relationship between the two dependent variables, Burnout and GHQ, will be reviewed.

3.6.4 Do burnout scores correlate with scores on the General Health Questionnaire?

GHQ scores were significantly positively correlated with elevated levels on Emotional Exhaustion ($r=.57$, $p<.01$) and Depersonalisation ($r=.40$, $p<.01$). Regression analysis showed that the burnout subscales significantly predicted variance in GHQ scores ($R^2=.34$; $F(2,61)=15.98$, $p<.001$) and table 3.17 shows that Emotional Exhaustion had an independently significant effect.

Table 3.17: Coefficient values of GHQ and correlated burnout variables

Variable	B	Beta	t (64)
Emotional Exhaustion	.13	.49	4.16***
Depersonalisation	.09	.15	1.33

*p<.05, **p<.01, ***p<.001

3.6.5 Does burnout correlate with Group Environment?

Correlation analysis was carried out to assess the relationship between subscales from the Maslach Burnout Inventory (MBI) and the Group Environment Scale (GES). The results are illustrated in Table 3.18. Emotional Exhaustion correlated significantly with six of the group environment subscales and Depersonalisation correlated with four. The strongest correlation was between Anger and Aggression and Emotional Exhaustion. Order and Organisation was the only group variable that correlated (positively) with Personal Accomplishment, and in fact, this variable was the only GES subscale that correlated significantly with all three MBI subscales. Group Expressiveness, Self-Discovery and Leader Control did not correlate with any burnout subscales.

Table 3.18: Correlation values between Group Environment Scale and Maslach Burnout Inventory subscales

Subscale	Emotional Exhaustion	Depersonalisation	Personal Accomplishment
Cohesion	-.35**	-.16	.18
Leader Support	-.27*	-.28*	.14
Expressiveness	-.09	-.03	.21
Independence	-.35**	-.13	.20
Task Orientation	-.28*	-2.1	.04
Self-Discovery	-.02	.04	-.10
Anger and Aggression	.50**	.25*	-.05
Order and Organisation	-.40**	-.33**	.33**
Leader Control	-.01	.13	.17
Innovation	-.19	-.25*	.08

*p<.05, **p<.01

3.6.6 Do Group Environment ratings predict burnout scores?

To ascertain the degree of variance in burnout scores that could be accounted for by group environment variables, a series of hierarchical regression analyses was performed. These analyses also identified any group variables that could independently predict burnout. For the analysis of the relationship between Emotional Exhaustion and Group Environment, only group variables that correlated at a significance value of $p<.01$ were included in the analysis. Table 3.19 shows that group variables significantly predicted Emotional Exhaustion. The coefficient values

Table 3.19: Hierarchical multiple regression analysis of Emotional Exhaustion and correlated group variables

Variable	R^2	R^2 change	F value for R^2 change	Overall F value
Emotional Exhaustion				
Neuroticism	.12	.12	8.83**	8.83**
Independence	.16	.04	2.86	5.97**
Order and Organisation	.22	.06	4.28*	5.62**
Anger and Aggression	.33	.11	9.73**	7.25***

*p<.05, **p<.01, ***p<.001

for the regression are presented in table 3.20. It shows that Order and Organisation appeared to have an independently predictive effect until Anger and Aggression was introduced into the analysis. This indicates that there is a large degree of overlap in the effect of these group variables on Emotional Exhaustion.

Table 3.20: Coefficient values of Emotional Exhaustion and correlated group variables

Model	Variable	B	Beta	t (64)
1	Cohesion	-1.61	-.35	-2.97**
2	Cohesion	-1.10	-.24	-1.78
	Independence	-1.58	-.23	-1.69
3	Cohesion	-.29	-.06	-.41
	Independence	-1.60	-.23	-1.75
	Order and organisation	-1.37	-.29	-2.07*
4	Cohesion	-.25	-.05	-.37
	Independence	-1.48	-.21	-1.73
	Order and organisation	-.55	-.12	-.82
	Anger and aggression	1.73	.38	3.12**

*p<.05, **p<.01

For the analysis of Group Environment with Depersonalisation, variables that correlated at $p<.05$ were included for analysis and the results are shown in table 3.21.

Table 3.21: Hierarchical multiple regression analysis of Depersonalisation and correlated group variables

Variable	R^2	R^2 change	F value for R^2 change	Overall F value
Depersonalisation				
Leader Support	.08	.08	5.32*	5.32*
Order and Organisation	.13	.06	3.96*	4.77*
Anger and Aggression	.15	.01	.86	3.46*
Innovation	.17	.02	1.7	3.05*

*$p<.05$

Overall, group variables significantly predicted Depersonalisation and there were no independent effects. All group variables were included in the analysis of Personal Accomplishment and did not significantly predict variance in scores.

3.6.7 Does burnout correlate with Personality?

Table 3.22 shows the correlations between the five personality variables and the MBI. Neuroticism correlated with all three MBI subscales – positively with Emotional Exhaustion and Depersonalisation and negatively with Personal Accomplishment. Extroversion and Agreeableness correlated negatively with Depersonalisation and positively with Personal Accomplishment. All five personality variables correlated significantly with Depersonalisation, whereas only one correlated with Emotional Exhaustion. Neuroticism and Extroversion held the strongest correlations with MBI subscales.

Table 3.22: Correlation values between NEO-Personality Inventory and MBI subscales

Subscale	Emotional Exhaustion	Depersonalisation	Personal Accomplishment
Neuroticism	.43**	.52**	-.37**
Extroversion	-.19	-.35**	.44**
Openness	-.10	.25*	.02
Agreeableness	-.23	-.29*	.28*
Conscientiousness	-.18	-.31*	.18

*p<.05, **p<.01

3.6.8 Does Personality predict burnout scores independently of Group Environment?

To assess the effect of personality on burnout scores after controlling for group environment, a series of hierarchical regression analyses were performed. Variables that correlated at a significance value of $p<.05$ were included in these analyses, and the results are displayed in table 3.23. We have already seen that the group variables of Cohesion,

Table 3.23: Hierarchical multiple regression analysis of personality, group environment and Emotional Exhaustion.

Variable	R^2	R^2 change	F value for R^2 change	Overall F value
Emotional Exhaustion				
Group Environment variables	.33	.33	7.25***	7.25***
Neuroticism	.39	.06	5.78*	7.42***

*p<.05, **p<.01, ***p<.001

Independence, Anger and Aggression, and Order and Organisation, accounted for 33% of variance in Emotional Exhaustion scores. Table 3.23 indicates that the difference in effect size between Neuroticism and group environment variables was

not significant, although Neuroticism independently predicted Emotional Exhaustion scores ($t(64)=2.40$, $p<.05$). Table 3.24 shows the results of the regression analysis of the group variables that correlated with Depersonalisation, Leader Support, Order and Organisation, Anger and Aggression and Innovation, and the five personality variables.

Table 3.24: Hierarchical multiple regression analysis of personality, group environment and Depersonalisation.

Variable	R^2	R^2 change	F value for R^2 change	Overall F value
Depersonalisation				
Group Environment variables	.17	.17	3.05*	3.05*
Neuroticism	.31	.14	12.16***	5.33***
Extraversion	.32	.00	.30	4.44***
Openness	.38	.06	5.88*	4.96***
Agreeableness	.42	.04	3.55	4.98***
Conscientiousness	.44	.02	1.89	4.71***

*p<.05, **p<.01, ***p<.001

The personality variables accounted for a substantial amount of variance in Depersonalisation, however the difference in effect size between group variables and personality variables was not significant. Neuroticism was the only variable that had

an independently significant effect at p<.001. The group variable, Order and Organisation, was analysed with Neuroticism, Extroversion and Agreeableness, in relation to Personal Accomplishment, as shown in table 3.25. The personality variables had a significant

Table 3.25: Hierarchical multiple regression analysis of personality, group environment and Personal Accomplishment.

Variable	R^2	R^2 change	F value for R^2 change	Overall F value
Personal Accomplishment				
Order and Organisation	.11	.11	7.86**	7.86**
Neuroticism	.17	.06	4.56*	6.43**
Extraversion	.24	.07	5.70*	6.51***
Agreeableness	.28	.04	3.28	5.88***

*p<.05, **p<.01, ***p<.001

predictive effect on variance in Personal Accomplishment. Only Extraversion had an independently significant effect on Personal Accomplishment scores (t(64)=2.43, p<.05).

3.6.9 Does Personality predict GHQ scores independently of Group Environment?

Correlation analysis revealed that Cohesion and Leader Support correlated negatively with GHQ scores at $p<.05$. Task Orientation, Anger and Aggression and Order and Organisation correlated at $p<.01$. Furthermore, General Health scores were correlated significantly with three of the five personality variables: Neuroticism ($r=.65$, $p<.01$), Extroversion ($r=.40$, $p<.01$), Conscientiousness ($r=.30$, $p<.05$). It is noteworthy that the correlation with Neuroticism was quite high. The five group variables and three personality variables were analysed using hierarchical multiple regression and the results are displayed in table 3.26. The analysis showed that both personality and group environment could separately predict variance in GHQ scores and that the joint contribution to GHQ of group and personality was over 50% (significant at $p<.001$). Two variables had an independently significant effect, namely, Anger and Aggression ($t(63)=3.96$, $p<.001$) and Neuroticism ($t(63)=1.99$, $p<.05$) although the effect of Anger and Aggression was much greater.

Table 3.26: Hierarchical multiple regression analysis of GHQ, group environment and personality.

Variable	R^2	R^2 change	F value for R^2 change	Overall F value
GHQ				
Cohesion	.06	.06	4.38*	4.38*
Leader Support	.09	.02	1.27	2.83
Task Orientation	.12	.04	2.40	2.73
Order and Organisation	.21	.09	6.44*	3.85**
Anger and Aggression	.38	.17	15.68***	6.98***
Neuroticism	.48	.11	11.59***	8.81***
Extraversion	.50	.02	2.56	8.12***
Conscientiousness	.52	.02	1.68	7.40***

*p<.05, **p<.01, ***p<.001

3.7 Summary

High Emotional Exhaustion scores independently predicted GHQ scores, and 35% of GHQ variance was accounted for by burnout. The Emotional Exhaustion aspect of burnout seemed to have the closest relationship with group environment variables, and in fact, over a third of variance in Emotional Exhaustion scores was accounted for by group variables. Furthermore, Anger and Aggression had an independently significant effect on Emotional Exhaustion. Of all the group variables, Order and Organisation related most to all three aspects of burnout, and in relation to Emotional Exhaustion, had a strong overlapping effect with Anger and Aggression. Roughly a quarter of variance in Depersonalisation and Personal Accomplishment scores were accounted for by group variables. Group participation was not significantly correlated with burnout. Neuroticism correlated at significance value $p<.01$ with burnout subscales, and although Extroversion also held strong correlations, only Neuroticism had an independent effect on burnout scores. However, further analysis indicated that group environment had a stronger predictive effect on Emotional Exhaustion, whereas personality variables, particularly Neuroticism, seemed more salient in Depersonalisation. Finally, of all the group and personality variables, Anger and Aggression had the most significant effect on GHQ, although Neuroticism also independently predicted GHQ, just to a lesser extent.

CHAPTER FOUR

DISCUSSION

4.1 Summary of research aims, method and findings

The aim of the current study was twofold: to investigate prevalence of burnout and symptoms of anxiety and depression, ratings of group environment and personality type in mental health professionals, and to explore the relationships between these variables and professional group. Sixty-six mental health professionals working in acute, psychiatric in-patient settings, across eight wards and nine teams, were recruited. All participants completed a set of questionnaires during a structured interview, and group participation during one ward round from each team, was recorded. Overall, participants showed higher levels of burnout than other mental health professionals, with nurses expressing more Emotional Exhaustion than psychiatrists, nurse managers and occupational therapists. Throughout the sample, over a third of variance in General Health Questionnaire scores was accounted for by burnout, with Emotional Exhaustion having an independently significant effect. Group environment in this setting seemed best characterised by Cohesion and Leader support, as rated by all participants. Nurses rated higher feelings of Anger and Aggression, and found groups less organised than other professionals, although for the whole sample, low order and organisation predicted higher feelings of aggression. As a whole, participants were more open-minded and less conscientious than most

people, and there were no differences in personality between professional groups. A strong relationship between burnout and group environment was found, with approximately one third of burnout scores being predicted by group environment ratings. The precise nature of the relationship between burnout and group environment and personality, seemed different for the burnout subscales. Group Environment overall, had the greatest effect on Emotional Exhaustion, with feelings of anger showing an independently predictive effect. Group organisation related to all three aspects of burnout, and overlapped with angry feelings, in relation to Emotional Exhaustion. Personality, on the other hand, related most to Depersonalisation and Neuroticism, in particular, and a predictive effect. Finally, expression of anger, and neuroticism, showed the closest association with GHQ scores.

4.2 Interpretation of the findings

In Chapter 3, the variables were first discussed in turn, followed by the analysis of correlations between all measures. In this chapter, burnout will be discussed first, before examining the relationship between burnout and the other measures. Subsequently, the findings for group environment will be reviewed.

4.2.1 Burnout

The correlations found between the burnout subscales, whereby greater levels of Emotional Exhaustion and Depersonalization were associated with lower levels of Personal Accomplishment, were consistent with the normative data and findings from

previous studies (Maslach & Jackson, 1986). Therefore, the expression of burnout in this population was similar to other populations, and the findings are compatible for comparison with other studies. Whilst all participants showed high levels of Emotional Exhaustion and Depersonalisation, approximately half the sample indicated that they do not experience a decreased sense of personal accomplishment from their work. For this group of mental health professionals, it seems that Emotional Exhaustion and Depersonalisation were more salient expressions of distress than decreased Personal Accomplishment.

One variation from the established norms was that in this study, over two thirds of the sample were moderately to markedly burnt out, which was significantly higher than other studies using mental health professionals (Maslach & Jackson, 1981). The normative sample consisted of professionals working in the United States, and it is possible that different socio-demographic and organisational factors mean that the current sample experience greater pressures from their work environment. Alternatively, the normative data was gained approximately 10 years ago and it may be that rising economic and service demand pressures have universally led to more stress on mental health professionals.

Nurses had significantly greater rates of Emotional Exhaustion than other professionals, however, this difference was not seen for Depersonalisation and Personal Accomplishment. In line with existing research, this indicates that firstly, although related, the different components of the burnout syndrome may be associated with slightly different aetiologies, which can vary with profession

(Duquette, *et. al.*, 1994). Therefore, there may be particular factors present in job demands on nurses which correlate with specific types of burnout. Identifying precisely what accounts for these differences is more complicated, and shall be considered in greater detail later in the chapter. Secondly, the current findings illustrate that *all* mental health professionals experienced high burnout, and that inter-professional differences were only apparent on one subscale. Furthermore, this difference was not sufficient to show categorically different levels of burnout. This contradicts suggestions from other studies, which have suggested that burnout is something experienced mainly by nurses (While & Barriball, 1999; Kandolin *et. al.*, 1993). It should be stressed that an extensive literature search did not reveal any studies which compared burnout rates across professional group, simply that existing studies on burnout in psychiatric settings have mainly used nursing populations (Leiter & Harvie, 1996). Therefore, this study this study has found that although Emotional Exhaustion is elevated in nurses, burnout is a phenomenon that affects all mental health professionals working in psychiatric in-patient care.

The literature on turnover has also largely used nursing populations (Lake, 2000), although a measure of this factor was not used in the current study. However, during the open-ended part of the interview, where participants were asked questions about causes of burnout (perceptions of their team, and so on) three of the nine consultant psychiatrists informed the researcher that they were in the process of leaving their posts. Moreover, one consultant psychiatrist made the comment "because of all the reasons we've been talking about". If burnout is a causal factor in turnover, as has been suggested (Pines & Maslach, 1980), the current finding that all professionals

were quite burnt out means that not only nursing populations are at risk. During the interview, one of the nurses said that they changed post every two years "so I don't get burnt out". The idea of staff turnover serving a protective function has not appeared in the literature to date, but it is an interesting one. One of the difficulties of turnover research is reliable access to the information, but it does seem an important issue to further investigate.

4.2.2 Burnout and General Health Scores

Overall, nearly a third of participants were at caseness level on the GHQ. Although this was not greater than the norm statistically, it does indicate that a substantial amount of anxious or depressive symptoms was experienced by this sample of mental health professionals. Nurses reported slightly higher levels than non-nursing professionals and this trend was also seen in scores on the Maslach Burnout Inventory. Furthermore, burnout scores accounted for over a third of variance in GHQ scores, and Emotional Exhaustion had a powerful independent effect. This may suggest that high burnout can lead to symptomatic levels of anxiety and depression, in non-clinical samples. The relationship between burnout and feelings of anxiety and depression had been found in other studies (Vachon, 2000), however many people experience symptoms of anxiety and depression, without these leading to the specific types of cognitive and behavioural patterns seen in burnout (Beck & Emery, 1985). Therefore, if there is a causal relationship between these two factors, it seems more likely that burnout is the causal influence. Of course, there are several interpretations that could be made on the basis of this finding, but nevertheless, it further highlights

the levels of distress and discomfort that can be experienced in conjunction with burnout, and the importance of understanding this phenomenon. It is interesting that nurses were more emotionally exhausted than other professionals, and Emotional Exhaustion strongly predicted GHQ scores, and yet, nurses showed no significant difference on the GHQ measure compared with other disciplines. One interpretation of this finding is that anxious and depressive symptomatology is expressed in relation to burnout when burnout levels have reached a certain height. Thus, although the two measures correlate, burnout has to be relatively high before caseness levels on the GHQ are indicated. This interpretation would also explain why burnout in this sample was significantly higher than the norm, whereas symptoms of anxiety and depression were not.

4.2.3 Burnout and Group Environment

Moos (1981) emphasises that interpretation of results obtained from the Group Environment Scale depends on the aims and remit of the group under study. For example, high ratings of expression of anger and aggression might be considered a good outcome in a psychotherapeutic group, whereas in a work-orientated group, such feelings might be viewed as problematic. For the current purposes, it seems reasonable to consider that high Cohesion, Leader Support, Independence, Task Orientation and Order and Organization would be considered as positive. High levels of Anger and Aggression and Self-Discovery would most usually be seen as not part of the remit of a psychiatric team and, therefore, as negative. This view is supported

by previous research using the Group Environment Scale in psychiatric in-patient teams (Brock & Barker, 1990). The interpretation of the value of the remaining subscales, Expressiveness, Leader Control and Innovation, is slightly more complicated. For example, Innovation – the degree to which activity change is encouraged – might be seen as positive by some group members, and negative by others, depending on whether or not they agreed with the changes. The extent of control and decision-making taken by the leader – in this case, the leaders being consultant psychiatrists or nurse managers – can also depend on situation, extent and the manner of execution. Therefore, the subscales that appear easier to interpret in relation to burnout shall be discussed first. However, the finding that the group environment scales accounted for at least a third of the variance in burnout scores is interesting. As noted in chapter 1, the relationship between group environment factors and burnout has not yet been investigated and the current finding seems sufficient to support the claim that group environment at work has an important influence on staff's well-being.

Cohesion and Independence

Emotional Exhaustion correlated with the greatest number of group variables: Cohesion, Independence, Order and Organisation and Anger and Aggression. Order and Organisation and Anger and Aggression will be discussed in greater detail later in the chapter. Cohesion and Independence were strongly negatively correlated with Emotional Exhaustion, which suggests that these variables have an important influence on burnout. This finding is similar to that found by Garrett (1999), who

used a related scale also devised by Moos (1974), and found that low peer cohesion was associated with higher Depersonalisation. Although Cohesion was not correlated with Depersonalisation in the current study, Emotional Exhaustion and Depersonalisation are seen to be related (Maslach & Jackson, 1981). Therefore, the current finding emphasises the important role that group cohesion plays in burnout. Brock & Barker (1990) found that greater ratings on Independence were found during a preferential change in group structure. They concluded that greater independence of action and expressiveness was a positive outcome. Ratings of lower Independence correlating with Emotional Exhaustion seem to support this conclusion.

Group Expressiveness, Self-Discovery and Leader Control

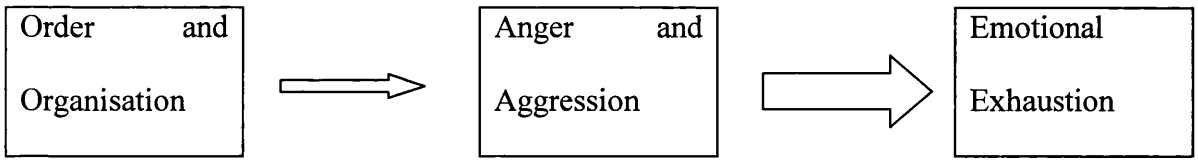
Group Expressiveness, Self-Discovery and Leader Control were the only GES subscales that did not correlate with burnout subscales. The interpretation of the value of Self-Discovery in this context proves difficult. Discussion of personal detail may be appropriate in some work-related situations, for example, if a staff member is experiencing a significant life event, discussion of this in supervision would be appropriate. However, in most interactions between staff in acute psychiatric settings, self-disclosure is probably not appropriate, and in fact, the raw data indicated that scores on this subscale were low. Brock & Barker (1990) reported that Expressiveness was rated higher when using the novel meeting structure, and suggested that this might be due to a reduction in Leader Control. In the current study, there was an extremely low correlation between Leader Control and Expressiveness, and neither variable correlated with burnout scores. In Brock &

Barkers (1990) study, Leader Control in multi-disciplinary team meetings was associated with negative ratings of group environment, and re-distributing control of ward round discussion led to more positive ratings. In the current study, Leader Control was rated as average, and it may be that in this sample Leader Control received a lower rating than in Brock & Barkers study. Alternatively, the apparent difference in negative perception of this subscale could be a function of the context in which it was measured. For the current purposes, participants were asked to rate their groups generally, not in the specific context of ward rounds. Furthermore, participants identified different professions as 'Leader': for psychiatrists, occupational therapists and some nurses, the leader was the consultant psychiatrist on the team. However, for most of the nurses and the nursing managers, the leader was identified as the nursing manager. There may be differential perceptions of whether Leader Control is seen as positive or negative, depending on whether or not the leader is seen as coming from the same professional background as the rater. On the other hand, it may be due to the relationship with the individual person who leads, or different leadership styles. It is possible that there is a distinction between Leader Control and Leader *Dominance*, which is not differentiated by the Group Environment Scale. Therefore, in the current study, Leader Control was not necessarily perceived as a negative aspect of group functioning.

Anger and Aggression, and, Order and Organisation

Of all the group environment variables, Anger and Aggression had the strongest correlation with Emotional Exhaustion. Order and Organisation also appears to be

important in relation to burnout, as it was the only group variable that correlated significantly with all three burnout subscales. Furthermore, Order and Organisation correlated most closely with Anger and Aggression and could significantly independently predict expression of angry feelings. To clarify these findings, it is useful to conceptualise a model that describes the effect of these variables on burnout. Although not comprehensive, the results support a tentative hypothesis of a predictive relationship between Order and Organisation, Anger and Aggression and Emotional Exhaustion:



It seems reasonable to assume that Order and Organisation would be the causal variable, such that a lack of organisation in group activities would make people feel frustrated. Group Environment was conceptualised as an independent variable, therefore, it is suggested that a lack of group organisation leads to angry and aggressive feelings, which in turn, lead to increased feelings of Emotional Exhaustion. The analysis showed that there are aspects of angry feelings which are not associated with group order, and that still account for burnout. However, a substantial part of the effect of anger on Emotional Exhaustion could be attributable to poor organisation.

In summary, the findings support the view that Group Environment has a significant impact on burnout and may contribute to its' emergence. Anger and Aggression, and Order and Organisation appear to have the greatest influence, although Cohesion and Independence also had a significant effect, as found in other studies (Brock & Barker, 1990, Garrett, 1999).

4.2.4 Burnout and Personality

In line with previous research (Mutchler, 2000), the current study found that personality variables had a significant effect on burnout. Neuroticism correlated with two of the burnout subscales, in the direction that might be expected: higher Neuroticism was associated with high Emotional Exhaustion and Depersonalisation. Other research has identified that Neuroticism has correlated with stress and burnout, in line with the current finding (Deary *et. al.* 1996; Alvarez, 2000).

Some researchers have suggested that as personality traits have been shown to be stable over time (Costa & MacRae, 1992), that personality is likely to be a casual factor in relation to burnout (Keinan & Melamed, 1987; Iacovides *et. al.,* 1999). However, theoretical and empirical personality research indicates that personality variables can be conceptualised as traits as well as states, and that the interaction between personality and the environment is more complex than an unmitigated linear relationship (Eysenck & Eysenck, 1964). Recent research on trait and state anxiety, and burnout, showed that both measures of anxiety were related to burnout, and

moreover, work-related factors such as peer and supervisory support acted as mitigators in the relationship between personality and burnout (Turnipseed, 1998).

In the current study, Emotional Exhaustion was independently predicted by Neuroticism, which might support a hypothesis that some symptoms of burnout are unrelated to work variables, and simply a function of certain personality types, as suggested by Iacovides *et. al.* (1999). However, over two thirds of the sample scored average or below on Neuroticism, so, by comparison with normative data, this was not a particularly neurotic group. Furthermore, the predictive effect of Neuroticism on Emotional Exhaustion was not significantly greater than that of group environment. Therefore, although personality variables seem important to consider when examining burnout in staff, the findings support a model whereby personality may be one of several potential causal variables, and that simply because certain aspects of personality may be stable, their expression or repression is nevertheless dependent on external, environmental conditions.

The finding that all personality variables correlated with Depersonalisation, suggests that this particular aspect of burnout may be more closely related to personality type than other facets of the syndrome. However, similarly with the findings in relation to Emotional Exhaustion, although Neuroticism independently predicted Depersonalisation, this effect was not significantly greater than other variables. None of the personality variables independently predicted Personal Accomplishment. In summary, the current study reflects findings from other studies whereby personality has an important effect on burnout, and indeed, may be more salient for different

aspects of this syndrome. However, a multi-variate aetiology of burnout, encompassing personality variables is supported by these findings, and the importance of examining external factors, which may be affected through intervention, remains.

4.2.5 Group Environment

The findings indicated that Cohesion was closely correlated with the other Group Environment variables, to the extent that over 70% of variance in Cohesion was accounted for by group variables. This suggests that Cohesion is a particularly salient variable in ratings of group environment, amongst mental health professionals. Task Orientation independently predicted Cohesion, therefore, it seems that peer relationships in groups are strongly related to the degree to which members feel they are focused on concrete, practical tasks. Furthermore, Cohesion, Task Orientation and Order and Organisation significantly predicted Anger and Aggression scores such that significantly more negative feelings were expressed more, and more inter-member disagreements occurred, when members perceived Cohesion, Task Orientation and Order and Organisation as low. This sample was a work-orientated group, so it seems reasonable that a lack of emphasis on concrete tasks might give rise to expressions of irritation, as the results indicate. Interpretations of causality between variables must necessarily be cautious in studies employing correlational designs, however, it seems plausible that the organisation of a group and the amount of focus on practical tasks is a more stable factor than expression of friendliness and aggression. Therefore, it is

tentatively suggested that Cohesion and Anger and Aggression may depend on the degree to which a group is ordered and task-focused. This finding relates to the earlier model suggesting the direction of the relationship between group variables and burnout.

The finding that nurses had lower ratings on Order and Organisation, and higher ratings on Anger and Aggression than other professionals, and higher rates of Emotional Exhaustion, adds further support for this model. In fact, the role of team climate could account for the increased scores on Emotional Exhaustion in nurses. Nurses invariably spend the majority of their time on the ward, whereas other professionals have separate offices. Furthermore, all of the consultant psychiatrists in the current study had split posts and consequently belonged to more than one team. In a similar vein, occupational therapists belong to the multi-disciplinary team and also the occupational therapy team as a whole. Therefore, if less well-organised team functioning leads to increased Emotional Exhaustion, and the participating teams indicated that their teams could be more organised, then the fact that nurses are the only professionals who spend all of their time within this team could account for the differences in burnout scores.

Leader Support also correlated with several of the other group variables, and was independently predicted by Independence. Again, any conclusions about causality cannot be definitive, however, this finding does support a model for a particular type of leadership. Lucas (1991) studied management style and job satisfaction, and found that whilst most organisations employed a benevolent-authoritative style, nursing

staff preferred a more participatory and interactive management model. The study showed that management style predicted over a third of variance in job satisfaction scores, highlighting its importance in positive feelings about work. Although this study used different measures, it seems possible that Independence is favoured by a less authoritarian leadership style, and moreover, related to greater support of the leader.

4.2.6 Group Participation

The generalisability of findings from the meetings attended by the researcher, to meetings in general was assessed in the additional questions. The results indicate that 89% of participants said that team meetings were "a little bit" or "not at all" different from usual. The most common reason given was that "people were more polite", and, "you [the researcher] were there". Reactivity of measurement was also measured by the additional questions. Ninety-seven percent of participants said that recording group participation made "a little" or "no" difference to how much they contributed. Therefore, it seems that there was no substantial difference made to group participation, as a result of being assessed. Furthermore, the meetings that were attended were largely similar to usual multi-disciplinary team meetings.

Nurses made significantly fewer contributions during multi-disciplinary team meetings than other professionals, taking up approximately half as much airtime. Other researchers who looked at group participation during team meetings found a similar pattern (Fewtrell & Toms, 1985; Sanson-Fisher, 1979). However, whilst

previous studies indicated that fewer contributions in multi-disciplinary team meetings was associated with increased negative affect (Brock & Barker, 1990), the current study found no correlation between length of contribution, and burnout, General Health scores or negative group environment ratings. In the current study, thirty-eight participants attended the multi-disciplinary team meetings, whereas the total sample size was sixty-six. Moreover, when completing the Group Environment Scale, participants were asked to consider all contexts in which the team functions, not simply the team meetings. This is in contrast to previous studies, which focused solely on the multi-disciplinary team meeting environment. Consequently, in the current study, Group Environment was assessed in a broader context, and with a larger sample size than group participation was. This methodological difference may account for the discrepancy between findings from this study and previous research.

4.3 Limitations of the study

The generalisability of the findings will be discussed in relation to the sample and socio-demographic variables. Issues brought up by the measures used will also be considered, as will the design of the study. Finally, the possibility of type 1 error will be considered.

4.3.1 Generalisability

The two primary limitations to the generalisability of the study, which reduce its external validity, are the size of the sample and the selection of participants. The sample used in the study was relatively small, and there were not equal numbers of participants from each profession. Although conclusions about nurses and non-nurses can be drawn the study, more subtle inter-professional comparisons could have been made with greater numbers of participants from medical and occupational therapy. For the present study, equal numbers in each profession were not possible simply as a function of the make-up of the sample. Secondly, the participants were not randomly selected, and they all worked in the same NHS Trust, working in the inner city in London. Greater numbers of participants from different NHS Trusts, and from outer city and rural areas would improve the external validity of this study. It is likely that different geographical areas experience different pressures in the workplace, and that patients have varying needs, depending on their socio-demographic group. Although such variables were not included for investigation in the current study, their influence cannot be excluded without adequate comparison across urban and rural groups. These factors have to be taken into account when considering the application of the findings to the broader set of mental health professionals working in the NHS.

Response rate is often an issue when considering general application of research findings. High participation from the originally recruited set enhances the generalisability of any conclusions (Duquette *et. al.*, 1994) and in this study, one team that was asked to participate was not included in the final sample. Although the

nursing team and nurse manager consented to participate, the consultant psychiatrist did not. The fact that only one person did not consent means it is unlikely that the whole team was different from the participating sample. Of the participants, one person only completed one questionnaire and the remainder of the sample completed all the measures, with no missing data. Therefore, there was an overall 83% response rate, which is satisfactory to conclude that there was little potential for response bias as a result of selective participation (Barker, Pistrang & Elliot, 1994). Thus, it seems reasonable to conclude that the final sample was representative of the recruited sample.

The size of the sample and the number of variables in the measures means that there was quite a high potential for type 1 error. A power analysis was conducted in the early stages of the research, and the results indicated that a sample size of 100 participants was desirable. Time constraints meant that recruiting this number was not possible for the current purposes however, this should be considered for future studies. There were several analyses conducted on the data, and a large number of significant correlations were found. Although restrictions were placed on the analysis by reducing the number of variables included, nevertheless, some of the findings could be due to chance. This has to be borne in mind when reviewing the findings, and any interpretations based on them must necessarily be cautious. Type 1 error is frequently an issue in exploratory research and emphasizes the need for replication of the findings with larger sample sizes, or fewer measures.

4.3.2 Measures

There are some limitations to the current study that apply to several of the measures used. Firstly, the Group Environment Scale, Maslach Burnout Inventory and NEO Five Factor Inventory do not yield a single score. Using three measures of this nature may have increased the type 1 error rate of the study, making conclusions about the findings less robust. In future research, limiting the number of measures, or using those which provide a single score, may prove more efficacious. Secondly, the NEO Five Factor Inventory and the General Health Questionnaire are both short forms of original versions. As with all shortened measures some degree of precision is lost, which has to be considered when reviewing the findings.

GES

The Group Environment Scale was chosen as it had been used in a previous study in a similar setting (Brock & Barker, 1990). However, Moos (1981) also produced a Work Environment Scale, which assesses the social climate of the work place, rather than groups, or teams, *per se.* Many of the subscales are similar to those in the Group Environment Scale, but they have a more organisational emphasis, for example, 'Staff Support', 'Work Pressure' and 'Clarity'. This scale has been used less extensively than the Group Environment Scale, and when the current study was started, searches revealed little literature indicating its use in a mental health setting, however, the workplace orientation of the measure would prove useful for further research.

The GES is a descriptive tool, not a classificatory or diagnostic one. This has several advantages, particularly in exploratory research, however, one of the disadvantages is that evaluative interpretation of the results is necessarily speculative and subjective. For some subscales, like Cohesion, and Anger and Aggression, it is reasonably easy to assess the value for a team, however, interpretations of Independence or Innovation are more difficult. Perhaps an additional self-report measure could have been administered, asking participants to rate the value of each subscale. This would have facilitated interpretation of the findings in the current context.

GHQ

The GHQ was designed to pick up clinical levels of symptoms, which is perhaps too pathological for the current remit. Deeper exploration of the relationship with burnout subscales might have been gained from a scale that is more sensitive to elevated levels of anxiety and depression, or even specific types of anxious presentation, which are below syndromal levels.

4.3.3 Design

As with most of the research on burnout, this study employed a cross-sectional, exploratory design, which limits any conclusions about causality. A longitudinal study would yield more robust conclusions about the impact of group environment on burnout, and relationships with behaviour in multi-disciplinary team meetings. The NEO Five Factor Inventory measures traits that are stable across time, and consequently the personality findings are unaffected by the studies' design. For

further investigation of burnout and staff turnover, any conclusions about causality must be based on longitudinal research designs.

The conceptualisation of burnout as a dependent variable and group environment as independent is not necessarily reflective of the underlying relationship between these two measures. Much of the literature on psychological processes and causality encapsulates not only multi-variate aetiology, but instead of linear causal relations, a more interactive, reciprocal model of causality. Although this concept actually has implications for the nature of all models using independent and dependent variables in exploratory research, the limitations of such categorical distinctions have to be considered when interpreting the findings.

4.4 Suggestions for future research

The suggestions for further research will relate to the limitations described earlier, as well as to suggestions made by other researchers.

4.4.1 Generalisability

To increase external validity, and thus to support any conclusions from this study, replication using a larger and broader sample would be useful. Ideally, randomly selected participants from a variety of NHS Trusts and geographical areas would facilitate greater generalisability of any findings. Furthermore, recruiting more

participants from the medical profession and occupational therapy would assist more complex analysis of inter-professional differences.

4.4.2 Measures

The body of research using the Maslach Burnout Inventory supports its continued use in the study of burnout, as this facilitates greater comparison of findings between studies. Furthermore this scale has been shown to have the most robust psychometric properties (Kahill, 1988). A more sensitive measure of sub-syndromal anxious and depressive symptoms would yield more complex analyses in relation to burnout, therefore future studies may benefit from employing such a scale, however, the author was unable to locate a measure that had been satisfactorily standardised, with good psychometric properties. Alternatively, as the findings showed a relationship between burnout and GHQ scores, which has been suggested elsewhere in the literature, further research using these measures would benefit the investigation of burnout and its associated factors. The precise nature of the relationship between burnout and symptomatic anxiety has not been fully investigated, for example, it may be that anxious and depressive symptomatology occurs in people who have very extreme levels of Emotional Exhaustion. Alternatively, these kinds of symptoms may appear through the interaction of burnout and other variables. Literature on the effects of severe and long-term stress would support an hypothesis that the greater the stress, and the longer it is experienced, the greater the likelihood of developing associated physical health symptoms (Maslach & Jackson, 1981). More research on the

relationship between these two measures needs to be conducted, to test this hypothesis.

In relation to the study of team climate, use of the Work Environment Scale (Moos, 1974) – perhaps in conjunction with Group Environment, would identify areas of convergence and disparity between these measures. This would help identify which scale yields closer relationships with burnout, and therefore, is used most appropriately in this setting. One of the stated difficulties with the current study was the number of variables in the measures and the consequent potential for type 1 error rate. However, if future studies employed larger sample sizes, this issue would be satisfactorily addressed, thus reducing the need to use fewer measures. Comprehensive identification of the causes and mitigating factors in burnout remains an important area for investigation, therefore, assessment of as many factors as possible, seems useful.

4.4.3 Design

This study provides support for a relationship between burnout and team climate. Group Environment was found to significantly impact on burnout and may be a causal factor in its' expression. However, as indicated, studies using correlational analysis cannot yield conclusive findings regarding any causal relationships. Consequently, further research employing experimental designs, perhaps modifying organisation of team functioning, would be useful in exploring the relationship between burnout in mental health professional and the teams in which they work. An

example might be conducting qualitative research investigating staff's views on how the organisation of their work could be improved, and then implementation of any structures, employing an A-B-A experimental design. Measures of personality could be conducted in conjunction with such a study, to test the hypothesis that certain environmental variables may inhibit or encourage expression of particular traits.

The role of the nature of supervision in relation to burnout could be investigated by comparison of authoritative styles and participatory styles of management, in similar settings. Other research on this relationship has used nursing staff (Savicki & Cooley, 1987) and since this finding has not been extensively explored, it seems reasonable to suggest that the same population be used in further investigations. Traditionally managed nursing teams could be assessed for burnout levels and team climate, and used as a control group in comparison with alternative management styles. Novel styles might include re-distribution of managerial tasks amongst the nursing team, and use of peer supervision as well as managerial supervision. It seems possible that such alterations in management style would inform teams of the various tasks and responsibilities present in all levels of nursing team functioning, and might, at the very least, improve group cohesion.

4.5 Implications of the study

This section will discuss the theoretical, practical and clinical implications of the study.

4.5.1 Theoretical implications

This study adds to the existing research on burnout in mental health professionals, and indicates that this is a widespread issue. Previous studies have concentrated mainly on nursing groups, however, the findings from this study indicate that burnout is a phenomenon experienced by all professionals working in acute psychiatric settings. The results also emphasise the importance of research into burnout, considering the degree of burnout that was found in this population. Secondly, the current study highlights the impact of the multi-disciplinary team on burnout. Previous research has not investigated the potential links between burnout and the role of the team in which professionals work, and the current findings support an hypothesis that team climate may be an important factor in the emergence or maintenance of burnout.

4.5.2 Practical and clinical implications

The findings of this study have implications for mental health professionals working in psychiatric and related mental health settings, and also for the organisations in which they work. The results of the current study can support some useful practical

indications for improving the work environment, which may, in turn, reduce the costly and distressing effects of burnout. Furthermore, other researchers have highlighted the impact of staff burnout on patients (Maslach & Jackson, 1981), and therefore, this study has implications for the delivery of optimal patient care.

The relationship between burnout and group environment that was found in this study points to an area for possible future intervention to ameliorate the impact of stress in the workplace. Specifically, how a team's functioning is organised and daily tasks are ordered appears to have an effect on burnout, as does the expression of angry feelings. It has been tentatively hypothesised that these two aspects are linked, and so it is suggested that decreases in Emotional Exhaustion and angry feelings might occur if members in multi-disciplinary teams felt their daily activities were organised differently. Although definitive conclusions regarding the direction of the relationship between burnout and group environment cannot be made on the basis of the current study, the findings do indicate that the team climate may be a useful area in which to intervene to help reduce burnout. Reference was made above to the potential for experimental research on the effect of modifying group organisation, and it seems that the current suggestions about the impact of this variable on burnout might be usefully considered when organisations and managers consider the ordering of acute psychiatric team activities.

Several possibilities for further research were indicated by the findings on group environment. The predictive relationship between Task Orientation and Cohesion suggests that mental health teams function better *as teams*, when clear and practical

tasks are being concentrated on. This finding seems to relate to the above hypothesis concerning group organisation, such that, part of ordering group activities is likely to involve identifying set objectives and outlining plans to achieve them. The findings indicate that overt group planning of this sort may improve the groups' cohesion. In relation to the predictive effect of Independence in relation to Leader Support, an experimental design comparing authoritative versus participatory leadership styles, and group environment, would clarify the nature of this relationship and perhaps provide a useful basis for structural change, in order to facilitate optimum team functioning.

4.6 Concluding comments

This study aimed to investigate burnout in mental health professionals, in relation to perception of team climate. Exploration of the impact of anxious and depressive symptoms, personality and group participation was also conducted. The findings indicated that all participants experienced greater burnout than the norm. Burnout was significantly correlated with symptoms of anxiety and depression, emphasizing the widespread and distressing effects that this condition is associated with. Group Environment significantly predicted burnout scores, highlighting the importance of the context in which mental health professionals work. The finding that all mental health professionals experienced significant levels of burnout seems important. Indeed, when approached for consent to participate in the current study, and before the study's remit had been outlined, one ward manager commented "Oh no, why are nurses so pathologised?" Personality variables were also linked with burnout,

particularly Depersonalisation. An understanding of this relationship was suggested, whereby the expression of some aspects of personality is facilitated by environmental influences. A model suggesting a possible relationship between group environment and burnout was outlined, with group organisation being identified as a variable that could be manipulated in future research employing an experimental design. The current study highlights the prevalence of burnout in all mental health staff and consequently, the importance of further investigation of this phenomenon, particularly considering the research correlating burnout with increased staff turnover and impact on patient care (Maslach & Jackson, 1981). However, the finding that Personal Accomplishment factor of burnout was the least affected by other variables, and not high in this sample, indicates that despite the pressures and stress inherent in mental health work, staff are able to gain a sense of achievement and worth from their work. Moreover, this study points to areas where practical interventions could be implemented to potentially ameliorate burnout, and reduce the costly personal and organisational implications of this phenomenon.

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APPENDICES

APPENDIX 1

Letter of approval from Local Research Ethics Committee

CAMDEN & ISLINGTON
Community Health Services NHS Trust
Your Partner for Health

LOCAL RESEARCH ETHICS COMMITTEE

**Research Office, 3rd Floor, West Wing, St. Pancras Hospital,
London. NW1 0PE
tel: 0171 530 3376 fax: 0171 530 3235
e-mail: research.office@dial.pipex.com**
Chair: *Stephanie Ellis* Administrator: *Michael Peat*

3rd July 2000

Dr Chris Barker
Sub-Department of Clinical Health Psychology
University College London
1-19 Torrington Place
Gower Street
London WC1E 6BT

Dear Dr Barker

Ref: 00/42 (please quote in all further correspondence)
Title: Workers' job satisfaction: The relationship between the climate of team meetings, burnout and staff turnover in mental health professionals

Thank you for your letter dated 16th June 2000, responding to the Ethics Committee's queries regarding the above project. I am pleased to inform you that these amendments satisfy the requirements of the Ethics Committee, and have therefore been granted approval. Please would you write and inform **Angela Williams** of the start date of your project, at the above address.

Please note that the following general conditions of approval apply:

- Investigators must ensure that all associated staff, including nursing staff, are informed of research projects and are told that they have the approval of the Local Research Ethics Committee.

- If data are to be stored on a computer in such a way as to make it possible to identify individuals then the project must be registered under the Data Protection Act 1984. Please consult your department data protection officer for advice.

- The Committee *must* receive immediate notification of any adverse event or unforeseen circumstances arising out of the project.

- The Committee *must* receive notification: (a) when the study is complete; (b) if it fails to start or is abandoned; (c) if the investigator/s change; and (d) if any amendments to the study are proposed or made.

- The Committee will request details of the progress of the research project periodically (i.e. annually) and require a copy of the report on completion of the project.

Please forward any requested additional material/amendments regarding your study to the Ethics Committee Administrator or myself at the above address. If you have any queries, please do not hesitate to contact Michael Peat at the Research office.

Yours sincerely

Stephanie Ellis
Committee Chair

APPENDIX 2

Consent form

PARTICIPANT CONSENT FORM

Burnout in mental health professionals: the role of team climate

Principal researcher: Lulu Preston, Clinical Psychologist in training
Supervisors: Dr. Chris Barker, Clinical Psychologist
Dr. Ken Bledin, Clinical Psychologist

To be completed by the participant:

		(Delete as necessary)
1.	I have read the information sheet about this study	YES/NO
2.	I have had an opportunity to ask questions and to discuss this study	YES/NO
3.	I have received satisfactory answers to all my questions	YES/NO
4.	I have received sufficient information about this study	YES/NO
5.	I understand that I am free to withdraw from this study:- - at any time - without giving a reason for withdrawing - without affecting my future employment	YES/NO
7.	Do you agree to take part in this study?	YES/NO

Signed.....**Date**.....

Name (in Block Letters).....

Hospital where participant is employed.....

Signature of investigator .....

Researchers name:
Lulu Preston, Sub-Department of Clinical Health Psychology, University College London.
Tel: 020 7679 7897
E-mail: lulu.preston@ucl.ac.uk

Ethical approval for this clinical doctorate research was obtained from Camden & Islington NHS Trust Ethics Committee

APPENDIX 3

Information sheet

PARTICIPANT INFORMATION SHEET

Burnout in mental health professionals: the role of team climate

Principal researcher: Lulu Preston, Clinical Psychologist in training
Supervisors: Dr. Chris Barker, Clinical Psychologist
Dr. Ken Bledin, Clinical Psychologist

A study is being carried out looking at how staff stress in mental health professionals and multi-disciplinary team meetings affect each other. This is an issue of increasing importance, as staff stress has been linked to high staff turnover rates. Identification of any relationship to team meetings or to other background factors may help inform us about particular stressors that staff face and, therefore, suggest possible ways to improve the work environment.

If you agree to participate, the study will involve:

1) **The researcher attending one ward round and measuring each team members' airtime.**

2) **Your completing a set of questionnaires with the researcher. This would be done at your place of work, and takes about 30-40 minutes. The time and location would be arranged to be convenient for you.**

All information that the researcher receives will remain strictly confidential. All response forms on the questionnaires are kept anonymous.

You do not have to take part in this study if you do not want to. If you decide to take part you may withdraw at any time without having to give a reason. Your decision whether to take part or not will not affect your employment in any way.

If you have any queries, please do not hesitate to contact the researcher, listed below:
Lulu Preston, Sub-Department of Clinical Health Psychology, University College London
Tel: 020 7679 7897
e-mail: lulu.preston@ucl.ac.uk

All proposals for research using human subjects are reviewed by an ethics committee before they can proceed. This proposal was reviewed by Camden & Islington Healthcare Trust Ethics Committee.

APPENDIX 4

Research Protocol for assistant locality directors

RESEARCH SUMMARY

This research is being conducted by as part of a clinical doctorate and has been approved by Camden & Islington Research Ethics Committee.

Introduction

This study is investigating burnout in mental health teams. Previous research has shown that mental health professionals, especially nursing staff, experience high levels of burnout in relation to their work. In turn, burnout has been correlated with increased sick leave, absenteeism and staff turnover. If a reliable relationship between burnout and turnover could be established, then interventions could be constructed to address this problem. There are factors present in working in mental health teams that may affect burnout levels. For example, the climate of the multi-disciplinary team may affect stress levels, however, this relationship has not been reliably established in the research literature. Alternatively, these perceptions may be determined by personality, or how someone feels on a more general level.

Therefore, this study is looking at whether feelings of burnout correlate with perceptions of team climate. It will also attempt to assess whether or not aspects of someone's personality and how they feel generally, make a difference. It is not disputed that mental health professionals are engaged in stressful, demanding and difficult tasks. Sometimes, the impact of these factors can be ignored, leading to lack of morale and dissatisfaction with work. One of the purposes of the current study is to highlight issues concerning the welfare of mental health staff to facilitate efforts to address them.

Procedure

This study will involve the researcher attending one multi-disciplinary team meeting, or 'ward round', to measure each team member's group participation. This will be done by the researcher writing down which team member is talking, at different time points. It should be stressed that in the ward round, what people say is not being measured. Furthermore, group participation will not be recorded when patients enter the ward round. Following the ward round, at each team members' convenience, meetings would be arranged to complete some questionnaires. These meetings take about 30-40 minutes. All information, clinical or otherwise, that the researcher receives will remain strictly confidential.

What next?

After the study has been written up, in July 2001, the researcher is committed to providing the team with feedback. This could be in the form of a written summary or a verbal presentation, whichever seems most appropriate. The researcher will be guided by the team in this case.

Should anyone wish to find out more or if anyone has any queries, please do not hesitate to contact Lulu Preston by calling 020 7679 7897, or by e-mail to lulu.preston@ucl.ac.uk.

Thank you for your time and consideration.

Lulu Preston, Clinical Psychologist in training

APPENDIX 5

Maslach Burnout Inventory

APPENDIX 6

Group Environment Scale (Form S)

APPENDIX 7

NEO-Five Factor Inventory (Form S)

APPENDIX 8

General Health Questionnaire (12 item version)

APPENDIX 9

Additional Questions

ADDITIONAL QUESTIONS

1. **How different was this ward round from ward rounds in general?**
2. **To what extent did your contribution being recorded affect how much you said?**
3. **What do you think causes feelings of burnout?**
4. **What could be done to help reduce feelings of burnout?**
5. **How would you define verbal abuse?**
6. **How much does verbal abuse lead to feelings of burnout?**
7. **Does verbal abuse affect burnout levels more or less than physical abuse?**
8. **How long have you worked in this team?**
9. **How do you feel about the team you work in?**
10. **How many times a week do you get physically assaulted?**
11. **How would you define physical assault?**