

**Violence in a high security psychiatric service
for women: Its effects on nursing staff.**

**Thesis submitted for the degree of Doctor of Clinical
Psychology**

By

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Abstract

Violence in a high security psychiatric service for women: Its effects on nursing staff.

Katherine Hellin

Seventy five nursing staff working in a high-security psychiatric service for women completed the Maslach Burnout Inventory and a measure of emotional reactions in response to one of three vignettes depicting a commonly experienced violent situation: an attack by a patient on a patient, on a member of staff and an episode of self-harm. An attack on a member of staff was associated with more negative feelings but less Depersonalisation than an attack on a patient, and with more negative feelings than self-harm. However, staff felt more Personal Accomplishment in the case of an attack on a member of staff than in the case of self-harm. Male staff experienced more Depersonalisation than female staff in association with an attack on a patient. Overall, the longer that staff had worked at Ashworth Hospital and in particular in the Women's Services, the greater their negative feelings and Emotional Exhaustion. Length of service with the women patients was associated with reduced Personal Accomplishment in relation to self-harm. The results are discussed in terms of the communicative function of violence, in particular self-harm which appears to elicit particularly strong feelings of helplessness and incompetence in staff. The use of unconscious and cognitive coping strategies are considered along with role-conflict for forensic nurses and the organisational context of Ashworth Hospital.

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Chapter 1 – Introduction

1.1 Background

This thesis is concerned with the emotional impact of violence in a high security psychiatric service for women on nursing staff. In this chapter, models of stress and its measurement will be considered. Then the literature relating to the prevalence of stress in nurses and the factors which cause it, will be reviewed. The remainder of the chapter focuses on a particular stressor, that of violence by patients. The literature about the prevalence of violence in patients and its effects on nursing staff is summarised, including that relating to a less considered form of violence, self-harm. Issues relating to the expression of anger and violence by women are reviewed and the Women's Services at Ashworth Hospital, a maximum security psychiatric hospital, are described. Finally, there is a summary of the chapter and the hypotheses for the study are laid out.

The research was approved by the Ashworth Hospital Ethics Committee in April 1997. They sought clarification that participants would remain anonymous. This was achieved by using a coding system by which staff's names were replaced.

1.2 Models of stress, post-traumatic stress disorder and burn-out

1.2.1 Stress

Stress is a complex process and not simply an event or an effect. What follows is an attempt to describe a framework for understanding the causes

and effects of stress with particular reference to occupational stress in health care staff.

Stress is generally understood as the results of complex interactions between individuals, their perceptions and resources, and the external demands, pressures and supports in a person's environment.

Early thinking about stress was dominated by a mechanical model which assumed that the degree of strain experienced by a person was proportionate to the magnitude of the stressor. Later, psychological and cognitive models emphasised the subjectivity of the phenomenon of stress and the role of the individual's processing of the stressor in determining the stress outcomes. For example, Lazarus and Folkman (1984) described such a transactional model. Disruptive emotional forces, such as excessive workloads, demands from supervisors or aggressive patients are appraised by the individual as potentially harmful. The individual also appraises their coping resources (e.g. personality factors, social support and specific coping strategies). If demands are perceived to exceed coping, the person experiences stress. They may or may not experience negative mental health outcomes depending on interactions between the stressors and coping factors.

Cooper and Marshall (1976) have applied a broadly similar transactional model specifically to occupational situations. They posit four elements which interact to produce the subjective perception of stress: the source of stress, the individual who may be experiencing stress, coping strategies, and the effects of stress on the individual and organisation.

These models can be summarised in a simple form by:

external stressors + moderating variables



stress outcomes

- *external stressors* = occupational stressors, life events
- *moderating variables* = coping skills, appraisal of internal and external factors, internal locus of control, self-esteem, physiological release mechanisms, social support and emotional stability
- *stress outcomes* = psychological distress, job satisfaction, burn-out

Stress outcomes or strain may be manifest behaviourally (e.g. increase in alcohol consumption, poor work performance, emotional withdrawal), in physical illness (e.g. headaches, disturbed sleep, heart disease, ulcers) and emotionally (e.g. irritability, depression, anxiety). The effects of stress may persist over long periods of time and become stressors in themselves; for example failing health caused by stress may become a further stressor.

1.2.2 Post traumatic stress disorder

The 1980 publication of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) (American Psychiatric Association, 1980) included, for the first time, the diagnosis of post-traumatic stress disorder (PTSD). PTSD has become a popular, perhaps fashionable, term. It is really a framework within which to consider the effects of a sudden or unexpected experience of a catastrophic event; a very specific type of stressor. It has been used in considering the sequelae of various trauma including combat (e.g. Grisby, 1987). The trauma is defined as "an event that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others" and the response must involve "intense fear, helplessness, or horror"(pp.428)(DSM IV) (American Psychiatric Association, 1994). The symptoms making up PTSD are characterised by high levels of physiological and psychological distress in response to cues associated with the trauma and nightmares and flashbacks. Persistent symptoms of

increased arousal and avoidance of the stimuli associated with the trauma are also required for a diagnosis of PTSD.

Some writers (e.g. Conn and Lion, 1983, Flannery, Fulton, Tausch and DeLoffi, 1991) have considered the effects of assault by patients on staff as an example of PTSD. Whilst some very serious assaults may constitute a trauma consistent with the definition above, on the whole, violence in psychiatric hospitals is less life-threatening than the definition requires. The experience for staff is generally not one of acute trauma but of chronic barrage. Nor do the responses of staff necessarily involve the symptom constellations described above. For this reason, this study will not utilise the PTSD framework in considering the effects of violence on staff in this setting.

1.2.3 Burnout

Burnout is a concept related to but distinct from stress outcome. It appears to be a concept which is more useful than PTSD in considering the effects of ongoing trauma rather than more intense and acute trauma. Burnout is not easy to define but the literature refers to certain common themes and constructs in considering burnout. Freudenberger (1975) may have been the originator of the term. He defines it as "failing, wearing out, or becoming exhausted through excessive demands on energy, strength, or resources" (pp. 73). Burnout seems to be a response to chronic occupational stress, a particular stress outcome which occurs particularly in people who work with others who are troubled, and experience ongoing stress in their interpersonal work situation. The effects are manifested in their feelings about their work and clients. Burnout takes the form of a negative internal psychological experience involving feelings, attitudes and expectations. The Health Education Authority (1988) identify the following as common features of burnout:

- Becoming distanced from the purpose of their work
- Developing negative and cynical attitudes towards clients
- Becoming unable to relate to colleagues and clients
- Relying on rules and procedures rather than being able to deal with clients as individuals.
- Becoming unproductive
- Developing physical, behavioural and emotional signs of stress.
- Becoming “dehumanised” and reacting as an automaton

The work-related aspects of burnout and its effects on patient or client care are emphasised within its definition. Maslach, Jackson and Leiter (1996) consider burnout to be “a syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment that can occur among individuals who work with people in some capacity” (pp. 3). They have defined three components of burnout (which constitute the sub-scales of the Maslach Burnout Inventory, a commonly used measure for this phenomenon) (Appendix 1). *Emotional exhaustion* describes the state in which people feel that can no longer “give of themselves at a psychological level” (pp. 4), a depletion of emotional resources. *Depersonalisation* refers to the development of “negative, cynical attitudes and feelings about one’s clients” (pp. 4). The development of depersonalisation appears to be related to the experience of emotional exhaustion and so the two items are correlated. The third component of burnout is *reduced personal accomplishment*, the “tendency to evaluate oneself negatively, particularly in relationship to one’s work with clients” (pp. 4).

Pines and Aronson (1981) refer to burnout as indistinguishable from depression. However, Maslach *et al* (1996) dispute this. They say that depression is a global, clinical syndrome whereas burnout is a crisis in relation to one’s work and in particular to the recipients of one’s services. The theoretical distinction between burnout and depression is supported by

Leiter and Durup (1994) who found that MBI subscales and various measures of depression loaded onto separate second-order factors. They suggested that burnout is a complex syndrome whose three components relate more closely to each other than to depression.

Burnout is often understood as a response to *long-term* stress. For example, according to Freudenberger's (1975) definition, it is the result of being worn-out which implies a process over time. However, Maslach *et al* (1996) point out that longitudinal research, necessary to establish the development and course of burnout and its relationship to time, has not been undertaken. Much of the research on burnout does not consider the temporal aspects of burnout at all. For example, Ackerley, Burnell, Holder and Kurdek (1988) investigated burnout in psychologists but did not consider the chronicity of stressors such as how long they had been practising. Interestingly, they found that the younger psychologists experienced significantly higher levels of burnout than older practitioners. This suggests that burnout is affected by factors other than chronicity of stress. The assumption that burnout develops over time, in response to chronic stress appears to be unproven.

1.3 Measurement of stress and burnout

The complex, transactional nature of stress suggests that its measurement needs to be multifactorial and must tap into the three elements of stress: stressors, moderating variables and stress outcomes.

Two measures have been commonly used in stress research in general nurses. The Nursing Stress Scale (NSS) (Gray-Toft and Anderson, 1981) is comprised of subscales of workload, inadequate preparation, death and dying, uncertainty over treatment, conflict with doctors, conflict with other nurses and lack of social support. Thirty-four items are answered on a 4-point frequency-response scale. It has been demonstrated to be reliable

and valid with American samples, but Harris (1989) suggests that its validity has not been established sufficiently beyond the North American hospital settings in which it was developed.

The Nurse Stress Index (NSI) (Harris, Hingley and Cooper, 1988) is a British self-report measure which identifies stressors for groups of senior nurses. It was developed using nurses from two health districts and it is not known from which specialisms the sample came or if it included psychiatric nurses. The NSI subscales are: dealing with patients and relatives, managing the workload (two subscales), organisational support and involvement, confidence and competence in role, home/work conflict and job satisfaction. Thirty items are answered on an intensity-response scale. Although NSI scores correlated significantly with mental health outcomes, the direction of the association was not clear (Harris, 1989).

Both the NSS and the NSI are developed for use with general nurses and do not necessarily include items pertinent to the experience of mental health disciplines. Both examine *stressors* and do not consider broader aspects of stress. The NSI is targeted at senior nurses and its validity in measuring stress in more junior staff is not established. The cultural applicability of the NSS is uncertain.

There are two measures which are specifically for use with psychiatric nurses: Dawkins, Depp and Selzer (1985) developed the Psychiatric Nurses Occupational Stress Scale (PNOSS). This forms six "thematic categories": negative characteristics of patients, administrative and organisational issues, limited resources, staff conflict, staff performance and scheduling issues. However, their development of the measure involved only 43 subjects, and 41 of the 43 were female. Also the staff were disproportionately supervisory in their roles and their sources of stress were less patient-related than administrative. This raises questions about the validity of the measure across grades and gender. The validity and reliability of the PNOSS have not apparently been established elsewhere.

Fagin, Carson, Leary, de Villiers, Bartlett, O'Malley, West, McElfatrick and Brown (1996) have developed the De Villiers, Carson, Leary Stress Scale (DCL), a 30 item measure of occupational stress designed for ward based mental health nurses. This identifies stressors on a five-point intensity scale. It has five subscales: patient demands, organisational factors, staffing, future concerns and job satisfaction. The statistical properties of this measure are not yet adequately established.

The measures described have all been developed specifically for nurses. Cushway, Tyler and Nolan (1996) developed the Mental Health Professional Stress Scale (MHPSS) to identify problems found by psychiatric nurses and other mental health professionals. This measure has seven subscales: workload, client-related difficulties, organisational structures and processes, relationships and conflict with other professionals, lack of resources, professional self-doubt, home-work conflict. The reliability and concurrent and discriminant validity has been demonstrated in a study involving 210 psychiatric nurses and 220 clinical psychologists.

As in the case of the NSS and the NSI, the PNOSS, DCL and MHPSS focus on the identification of *stressors*. Researchers have tended to use separate measures to tap into moderating variables such as coping mechanisms and stress outcome variables.

In contrast, research in occupational psychology has developed and utilised a measure which reflects the complex, transactional nature of stress and considers its different elements: stressors, mediating variables and stress outcomes. Kirkcaldy and Cooper (1993) developed a short version of the Occupational Stress Indicator (Cooper, Sloan and Williams, 1988). This is an 83 item measure including the following sub-scales: sources of job stress, job satisfaction, physical ill health, mental ill health, Type A behaviour patterns, external locus of control, the use of coping

techniques. This measure has the advantage of being complex but is designed to measure stress across a broad range of work. Its items are necessarily rather general, for example, "would you say that you tended to be a rather over-conscientious person who worries about mistakes or actions that you may have taken in the past, such as decisions?" and "satisfaction with the design and shape of your organisation's structure". As it is not devised for mental health workers in particular, it lacks items specific to this field.

Few studies utilise standardised instruments to measure possible moderating variables. The coping questionnaire by Moos, Cronkite, Billings and Finney (1984) is probably the most commonly used (e.g. Tyler and Cushway, 1992) to examine the ways in which staff dealt with stress. This is a 33-item scale which staff answer on a frequency-response basis. The questionnaire yields three coping subscales: active cognitive coping, active behavioural coping and avoidance coping.

Probably the instrument most frequently used as a measure of stress outcome is the General Health Questionnaire (Goldberg, 1978). Its short version, the GHQ-28, is quick to administer and has a robust factorial structure. It assesses somatic symptoms, anxiety and insomnia, social dysfunction and severe depression.

Instruments have also been developed to measure the effects specific to patient assault on staff. For example, Lanza (1983) designed the Assault Response Questionnaire which comprises 108 possible responses on a 5-point scale of intensity. These take the form of possible feelings, social responses (e.g. changes in relationships to co-workers) and biophysiological responses (e.g. headaches, sleep disturbance). The statistical properties of the questionnaire are not reported and do not appear to have been established.

The Maslach Burnout Inventory (MBI) (Maslach *et al*, 1996) (see Appendix 1) is also widely used as a measure of stress outcome, in this case burnout. It was designed for use in human services providers rather than mental health workers in specifically. However, it specifically measures the *effects* of the stressor. The MBI measures perceptions of professional-client relationships (and, more generally, the relationship between the professional and their work) along three dimensions: Emotional Exhaustion, Depersonalisation and Personal Accomplishment.

1.4 Prevalence of stress in nursing staff

Sickness caused by stress is of concern to many both from a human and financial perspective. The literature cites the pervasive negative effect of stress on individuals, organisations and society as a whole (e.g. Health Education Authority, 1988). Stress leads to sickness and burnout in individual staff with consequent reduction in their capacity to do their jobs well and to eventual absence from work. According to Cole (1992), stress accounts for 30-40% of all absence which is due to sickness in the NHS and 93% of nurses said they felt stressed at work. This, in turn, leads to organisational damage; a loss of efficiency and effectiveness and a reduction in the compassion, responsiveness and sensitivity of the institution which badly reduces its ability to fulfil its basic role.

A good deal of attention has been paid to occupational effects on health workers. Most of the research has been concerned with nursing staff. There seem to be two main reasons for this. Nurses comprise the largest single profession of health care staff. In addition, the “hands on” nature of their work is likely to be particularly stressful.

“[nurses] bear[ing] a large measure of responsibility for basic social functions.... They are involved with fundamental issues of power and control, authority and

discipline, emotional pain and death - issues which most people avoid facing directly unless they become victims or sufferers. [Nurses]...are required to 'pick up the pieces' of society's problems, problems which are always changing and which may seem intractable"

Health Education Authority (1988) (pp. 2)

In support of the hypothesis that nurses experience high levels of stress, Gillespie and Gillespie (1986) found that of all professional groups, nursing has one of the highest rates of suicide and is the biggest group who present for treatment in psychiatric out-patient clinics.

A more recent study by Borrill, Wall, West, Hardy, Shapiro, Carter, Golya, and Haynes (1996) provides contemporary data based on a very large sample of the mental health workforce in NHS Trusts. They received 11,637 questionnaires from a multi-disciplinary workforce across nineteen NHS Trusts. Measures included a demographic questionnaire, a measure of work-related factors such as role-conflict and job demands, and the General Health Questionnaire (GHQ-12) as a measure of mental health. This identifies such features as feelings of stress, depression, inability to cope, anxiety-based insomnia etc. On the basis of scores on these items the average caseness for the total sample was 26.8%. This was significantly greater than the average caseness in other occupational groups in general. For example, the British Household Panel Survey, 3rd wave data, 1993–1994, found average caseness for employed people generally was 17.8%.

The study by Borrill *et al* (1996) showed that managers had the highest percentage of caseness at 33.4% and nurses were the second highest with 28.5%. Managers, nurses and doctors had significantly higher levels of caseness than other NHS staff (technical, ancillary and administrative staff).

Across all occupations in the NHS Trusts sample, they found a curvilinear relationship between age and caseness, with the younger and older staff having better mental health than those aged from 26 to 45. In the nursing staff group, there was no association between gender and mental health.

Several research studies have examined stress specifically in psychiatric nurses and compared stress levels in different nursing specialities. These studies do not demonstrate clear differences in stress levels experienced by psychiatric and forensic nurses and others.

Fagin *et al* (1996) reviewed three studies of psychiatric ward-based nurses and found caseness levels of 27%, 32% and 38% on the GHQ-28.

Dolan (1987) found no differences in scores on the Maslach Burnout Inventory between general and psychiatric nurses, but the sample sizes were small and non-representative. Reeves (1994) found only marginal differences between general and psychiatric nurses on the GHQ-28, with general nurses showing slightly higher percentages of caseness (29% vs. 27% for psychiatric nurses). Both of these studies used only single, general measures of stress outcome. These may have been insufficiently precise to detect real differences.

Lyons, Tarbuck and Williams (1992) compared community psychiatric nurses, Ashworth Hospital (high-security) nurses, medium secure ward nurses and "general" psychiatric nurses using the NSI. They found that overall, psychiatric and forensic nurses scored higher on the NSI than their general nurse counterparts. Psychiatric nurses in general psychiatric settings were more stressed than those in forensic settings. These conclusions seem to be based on comparisons of raw scores on the NSI and no statistical analysis is reported so the robustness of the conclusions must be questioned.

Overall, the research findings regarding differences in stress levels across different areas of nursing is equivocal. Differences are not clearly demonstrated. This may be explained by the fact that stress is a complex process and stress outcomes will be determined by a range of factors of which the specialist area of work is only one.

It may be more useful in understanding stress in nursing and particularly psychiatric nursing, to consider specific aspects of the nursing role, and individuals' responses to it. There has been considerable attention paid to the factors which are identified by staff as being most stressful and their ways of coping. This literature is summarised below.

1.5 Factors causing stress in nursing staff

1.5.1 General nursing

There is a considerable volume of literature about stress in general nurses but this will be alluded to only briefly. Many sources of stress identified by general nurses are common to psychiatric nurses, for example, workload stress and poor relationships with managers (Health Education Authority, 1988). However, general nurses also identify stressors particular to their area of care, such as dealing with death and dying patients.

For example, Tyler and Cushway (1992) examined the relationship between stressors, coping and stress outcomes in 72 renal nurses. As measures of sources of stress, they used the Nurses Stress Scale (NSS) and the Nurse Stress Index (NSI). They used the GHQ as their stress outcome measure and the coping questionnaire devised by Moos *et al.*, (1984) to examine the ways in which staff dealt with stress.

They found that workload was the main source of stress followed by inadequate preparation and dealing with death and dying. Staff conflict and

workload stress increased with grade. High workload and avoidance coping (or not using active behavioural coping) predicted poor mental health. Avoidance coping differentiated above and below threshold responses to the GHQ.

Tyler and Ellison (1994) used the same measures as Tyler and Cushway (1992) with 60 theatre, liver, haematology/oncology and elective surgery nurses. They found that the sources of stress varied with the ward area but overall, active coping strategies (e.g. talking to others, engaging in leisure activities and exercise) were more effective in managing stress adaptively than were emotion-focussed ways of coping (crying, going for a drink, withdrawing, preparing for the worst) and denial.

1.5.2 Psychiatric nursing

There is an *a priori* case that psychiatric nursing may be a more stressful occupation than that of general nursing. Psychiatric nurses deal with mental illness which is often poorly-understood and feared even by professionals working in the field. Patients may be unwilling and ungrateful recipients of treatment and are sometimes frightening and dangerous. As well as being subject to many of the same stressors as their general counterparts, psychiatric nurses may experience the effects of these, and other, additional factors.

Literature pertinent to psychiatric nursing will be reviewed below with particular emphasis on hospital nurses.

Maslach and Jackson (1982) noted that the amount and type of contact with patients was key in the development of burnout. The chance of burnout developing was increased where patients did not respond to the staff, or where their response was negative, such as aggressive behaviour. Poor prognosis, lack of improvement in the patients and unrealistic

expectations of improvement were also cited as factors precipitating burnout.

Dawkins *et al* (1985) found that of the thirteen items or events from the Psychiatric Nurses Occupational Stress Scale judged by 43 psychiatric nurses to be highly stressful, twelve were organisational issues. These included "not being notified of changes before they occur", "dealing with people in key positions who are unable to make decisions" and "lack of support from administration". Only one item chosen as highly stressful was a patient factor; "a physical threat by a patient". Two other patient items were identified as being moderate stressors, "giving injections in seclusion to a struggling kicking patient" and "working with suicidal patients who are obsessed with committing suicide".

The conclusions from this study must be viewed with caution. Of the 78 items, only 11 were specific to psychiatric hospitals and the rest were general. The sample size was small, predominantly female and biased towards those in a supervisory and administrative role. Sources of stress for nurses who are predominantly managers may be less clinical than those in more "hands-on" roles.

In a study by Trygstad (1986), 22 registered nurses working in psychiatric hospital settings in the United States were given semi-structured interviews and the transcripts were analysed to identify stressors in the staff. Patient factors were cited as accounting for 13% of the stress experienced by the nurses (the third most common source of stress). In particular, patients' chronicity, recidivism, the potential for violence, acuity, complexity, their extreme neediness and the "self-centred demands" of them and their families, were cited as the stressful factors. Again the small sample size, and the lack of quantitative validation of the findings mean that they must be treated with caution.

Sullivan (1993) surveyed 78 qualified, hospital psychiatric nurses using a Psychiatric Nursing Stress Inventory (PNSI) and a coping questionnaire that he had devised specifically for the study. He also administered the MBI and undertook a semi-structured interview. Excessive administrative duties, work overload, and poor relationships and communications with peers and managers appeared as commonly reported causes of stress. However, the most stressful situations for staff derived from interactions with patients. Specifically, "working with potentially violent patients", "having to deal with patients who become physically violent", "dealing with potentially suicidal patients" and "continuous observations of patients on a one-to-one basis" were thought to be the most stressful events encountered by the staff in his study.

This study may be criticised because the PNSI and coping questionnaire are without proven statistical properties. However, Sullivan (1993) found that high scores on the patient-care items in his measure of stress correlated positively with Emotional Exhaustion, a subscale of the well validated MBI. Likewise, Kandolin (1993) found a positive association between patient aggression and Emotional Exhaustion and Depersonalisation, and a negative relationship with Personal Accomplishment.

Kandolin (1993) gave the MBI to 124 mental health nurses and 162 nurses for people with learning difficulties, in Finland. She also elicited information about stress (using a 5-item stress scale), coping strategies and stressors in the workplace. Instead of scoring the MBI as recommended using the three factors identified in North American studies, she factor-analysed the MBI data and found three factors which she called psychological fatigue, attitudinal hardening and loss of enjoyment from work. The first two are almost the same as the subscales of Emotional Exhaustion and Depersonalisation respectively. The third factor is slightly different from although overlapping with Personal Accomplishment. It emphasises items

which address the nurses enjoyment of their work rather than their sense of achievement.

She found that there was no gender differences in levels of burnout. The variation in burnout levels were largely accounted for by the nature of the workplace and the coping strategies which staff used. A tense atmosphere as perceived by staff was associated with psychological fatigue, attitudinal hardening and increased stress. For women, physical violence was more predictive of burnout than for male staff. Active coping, such as talking about stressful situations with a friend, was associated with less stress and less attitudinal hardening in female staff and with more job satisfaction in male staff. Passive coping, such as alcohol use was associated with poorer psychological outcomes.

Nolan, Cushway and Tyler (1995) administered a package of measures including the MHPSS, SCL-18 (symptom checklist), the coping schedule (Moos et al, 1984), a brief job satisfaction measure and the GHQ-28 (General Health Questionnaire) to 210 community and hospital mental health nurses.

Home/work conflict was the best predictor of GHQ outcome followed by professional self-doubt, client/patient-related difficulties and workload.

In contrast to findings from other studies (e.g. Jones, Janman and Payne, 1987) in which female nurses are usually found to experience higher degrees of stress and burnout, they found that the "caseness" percentage was greater in male than female nurses. Men also scored more highly on the somatic symptoms on the GHQ and severe depression subscale, and expressed less job satisfaction. They wonder if this may be due to the fact that male staff may intervene more often in managing violence, get injured more often and undertake less of the caring role for which they are trained.

Nolan *et al* (1995) also found that more senior staff reported higher levels of stress. They suggested that more senior staff may find management

support inadequate and the pressure of their senior responsibilities in this context may be very stressful. They may have particularly high workloads and feel isolated.

Fagin *et al* (1996) used multiple measures including the MBI, DCL checklist, GHQ and a measure of coping in three studies involving 648 ward-based mental health nurses. Of thirty items, five of the six identified as being the most stressful were organisational factors but one was a patient item, that is, "inadequate staffing cover in potentially dangerous situations". The study found that stress is a problem for ward based psychiatric nurses with about a third falling into the "high" range for Emotional Exhaustion, and only about a quarter experiencing high Personal Accomplishment.

Melchior, Bours, Schmitz and Wittich (1997) undertook a comprehensive meta-analysis of studies into burnout in psychiatric nurses. On the basis of nine studies which met their criteria for inclusion, they found that job satisfaction, staff support and involvement with the organisation were negatively correlated with burnout; role conflict was positively correlated. These factors have been found to be significant correlates with burnout in other occupational groups and so cannot be considered to be specific to psychiatric nursing. However, the findings do suggest that the negative subjective experiences of these organisational stressors actually have an objective effect on degree of burnout in psychiatric nurses.

They also found three main factors which were associated with increased burnout: working with difficult (e.g. aggressive or suicidal) patients, the inequality of exchange between psychiatric nurses and patients, and unrealistic expectations for patients' rehabilitation.

In general, the research suggests that organisational factors play a major role in determining or alleviating stress for psychiatric and general nurses

alike. Such factors include excessive demands on time, staff shortages, poor communication, confusion about roles and distant relationships with managers. Whilst it seems that psychiatric nurses are affected by organisational stressors in the same ways as other nurses, there seem to be factors specific to *psychiatric* nursing which exacerbate stress and burnout.

Patient factors are almost always shown to be significant sources of stress for psychiatric nurses. The main factor typically identified is that of dealing with potential or actual violence by patients (e.g. Maslach and Jackson, 1982, Dawkins *et al*, 1985, Trygstad, 1986, Sullivan, 1993, and Melchior *et al*, 1997). Other stressful patients are those who reject care, those who do not improve (e.g. Maslach and Jackson, 1982) and who feel suicidal (e.g. Melchior *et al*, 1997). Furthermore, as Fagin *et al* (1996) found, stress may arise from the interaction between organisational and patient factors, as in "inadequate staffing in potentially dangerous situations". Taken together, there is evidence that violent and unpredictable behaviour in patients is a significant determinant of stress and negative psychological sequelae in psychiatric nurses. Forensic settings are particularly likely to subject nurses to these factors and the effects of working in such an environment will be considered below.

1.5.3 Forensic nursing

There has been little research into the psychological effects of working in secure settings, and almost none with staff in high security. It seems reasonable to consider that the experience of working in a maximum security hospital is similar to that of being a prison officer. In both cases, staff are often having to manage threatening and violent behaviour and both have a custodial role, although it is likely that role conflict is less for prison officers who do not have an explicitly therapeutic role. Studies by Smith (1984) in North America found that prison officers scored more highly on measures of fatigue, tiredness and cognitive confusion than a normal

working population. They also had higher incidence of back and skin problems, hypertension and stomach complaints than the general population. It may not be valid to generalise from North America to the UK, or to compare prison officers with forensic psychiatric nurses, but the results suggest that nursing in high security settings may be a very stressful occupation.

Chandley and Mason (1995) point out that work with high profile and highly dangerous patients in a maximum security setting is subject to intense media scrutiny and a paradoxical sense of clinical isolation because of the clinical speciality of forensic treatment. They suggest that nursing staff often feel impotent and guilty at their lack of clinical outcomes and progress with patients.

However, Lyons *et al* (1992) surprisingly found that forensic nurses scored lower than psychiatric nurses in other settings on the NSI. As the statistical basis for their conclusions is unknown, their findings must be viewed with caution. However, if valid, there are several possible explanations for this unexpected result. Lyons *et al* (1992) speculate that it may be an artefact of the "macho" culture in forensic settings which prevents people from being aware of and admitting that they may experience stress in their jobs. There may also be individual factors which determine the perception of stress in forensic nurses. Forensic nursing may attract people whose response to the patient group is positive, one of excitement and enthusiasm. For them, the stress is no greater than elsewhere, or it is positive not negative and might be unavailable to measurement by instruments which consider stress as a negative psychological factor. Alternatively, the forensic settings from which Lyons *et al* (1992) drew their staff may have been better resourced than the psychiatric service, and forensic staff may have been better debriefed after stressful events.

There is only one study which examines stress in psychiatric nursing staff in a high security setting (Jones *et al*, 1987). The staff group comprised

349 nurses in a Special Hospital (an organisation equivalent to Ashworth Hospital) in England. Psychological health was measured by the GHQ-12 and a supplementary brief anxiety and depression scale. Job stressors or "demands" were categorised as "administrative", "patient supervision" and "aversive". The latter category included items such as "undertake work I consider unnecessary" and "work with patients I am afraid of".

Levels of psychological distress, but not anxiety and depression, appeared high compared with an employed sample and with a group of people who worked in an engineering plant. However, these comparisons were not statistically demonstrated as they utilised means from other studies. Female staff scored higher on measures of psychological distress than their male colleagues but reported greater job satisfaction than men.

Administrative and patient supervisory demands, although common, were not associated with psychological distress, anxiety and depression. However, aversive demands were highly related to stress although rarely experienced.

Kirby and Pollock (1995) investigated occupational stress in nurses from two wards (acute and rehabilitation), in a medium secure service. They examined the relationship between stress levels (using the OSI) and the ward environments. Interestingly, their findings did not support the idea that forensic nurses were more stressed than their psychiatric and general counterparts. There were no differences found between nurses on the two types of wards, either with respect to their stress levels or perceptions of ward atmosphere. In comparison with normative regional data, the staff showed high degrees of job satisfaction, high sense of control in their work environments, as well as high levels of Type A personality. The authors suggest that the apparent lack of occupational stress can be explained by presence of organisational and personal coping factors which offset the stressful effects of the forensic environment.

Overall, there is no clear evidence that forensic nurses experience greater levels of stress than psychiatric or general nurses even though they are likely to be exposed to more patient violence, the most commonly identified source of stress associated with patients in psychiatric settings. It is possible that individual factors (such as the nurse's attraction to forensic work and their attributions and cognitions about the work) and organisational factors (such as better resources, debriefing and a "culture of denial") moderate or obscure actual stress levels.

The following section will review the literature which specifically examines the effects of violence on staff.

1.6 Definitions of violence

As in the stress literature, lack of clarity in definition is a problem in the research into violence by patients. Haller and Deluty (1988) point out that research into violence often fails to define "assault" in operational terms and does not distinguish between verbal and physical assault. They define "assault" as "all violent personal attacks, either physical or verbal". Holden (1985) uses a legal framework to distinguish between "assault" (verbal abuse), "assault and battery" (a physical assault) and "assault occasioning actual bodily harm" (assault causing injury). Hafke and Reid (1983) offer a broad definition of violence as "an activity that uses force to inflict injury on another". This can be extended to include overt threats and/or behaviour that is likely to physically harm another person. Larkin, Murtagh and Jones (1988) define violence as "any behaviour which could physically damage the individual himself, another individual or property". These definitions are behavioural and focus on the act which may be verbal and/or physical and its physical consequences.

These definitions disregards the psychological aspects of injury. Increasingly law is acknowledging that psychological harm may be the main effect of assault even in the absence of physical injury. Poster and Ryan (1989) and Baxter, Hafner and Holme (1992) use the definition "any physical contact by a patient that results in a staff member feeling threatened".

Whilst this definition allows inclusion of psychological effects of violence, it excludes forms of violence which may have serious psychological consequences for staff, but are not aimed at staff directly, e.g. violence against another patient, against property or self-harm. The literature which will be reviewed is almost entirely concerned with violence by patients against staff. Poster and Ryan (1989) point out that there has been no investigation of the effects of chronic violence and of being in an atmosphere of threat or witnessing violence without actually being assaulted. In order to investigate such effects, the definition of violence must be broadened to include an action or threat of an action which may cause physical and/or psychological damage to another person or to the assailant her/himself.

1.7 Prevalence of violence against mental health staff

There is evidence that violent assault of staff by patients is relatively common. Hatti, Dubin and Weiss (1982) found that 20% of 391 psychiatrists in Philadelphia had been assaulted. Assault in forensic settings is probably even more often encountered. Larkin *et al* (1988) found that, compared with rates from general psychiatric hospitals, violent incidents were more common at Rampton Hospital, a high security hospital, and that the incidents were more serious and resulted in greater injury.

In comparison with other professionals, nursing staff are the recipients of the vast majority of patient assaults. Larkin *et al* (1988) found that 91% of patient assaults were made against nursing staff. Similarly in the USA, in a large forensic state hospital, Carmel & Hunter (1989) found that 120 of the 135 injuries to staff over a year, were sustained by nurses. Sixteen percent of nursing staff were injured over this period in comparison with 5.7% of non-clinical staff and only 1.9% of professional, non-nursing staff.

Of the nursing specialisms, psychiatric nurses are most at risk of assault. Arnetz, Arnetz and Petterson (1996) found that 61.4% of psychiatric nurses had experienced violence on more than one occasion compared with 15.7% of nurses working in other medical areas. Baxter *et al* (1992) found that only 18% of his sample of 425 psychiatric hospital nurses had experienced no assaults at all and 51% had not experienced a severe assault. However, 22% reported more than ten assaults and 13% had been severely assaulted more than three times. The mean annual rate of assault was 1.98 ± 4.1 per nurse.

These high figures may be an underestimation of the frequency of violent incidents. Lion, Snyder and Merrill (1981) suggests that such events are prone to being under-reported because of staff's feelings that they have failed if violence has occurred, because they become inured to violence and because of the burden of the additional paperwork.

1.8 Responses of psychiatric nursing staff to assault

Although there is a considerable literature devoted to violence in psychiatric services, most of it addresses prevalence rates, the targets of assault and management of violence. There is little attention to theory and to the experiences and responses of staff to violence. In attempting to review the literature, Lanza (1983) found no articles at all which examined

the responses of nurses to patient violence. Almost ten years later, Baxter *et al* (1992) found only one study which explored this area.

Lanza (1983) employed a retrospective methodology to examine emotional, social, biophysiological and cognitive responses to assault in forty nursing staff in a neuropsychiatric service in the USA. Staff were asked to complete the Assault Response Questionnaire with respect both to short-term reactions (within a week of the assault) and to long-term reactions (a week to a year). She found that the victims most often reported no reaction to the assault. She speculates that they feared being overwhelmed by their feelings and becoming unable to function if they were to acknowledge their emotions at all. Others indicated that they had no right to responses because assault was to be expected as part of the job. Lanza speculates as to the reasons for such non-response. She suggests that staff may resort to defence mechanisms of suppression of feelings whereby negative affect is removed from consciousness. She also suggests staff become inured to working with dangerous people.

For those who did report effects of assault, the most common short-term responses were: anger, anxiety, helplessness, irritability, feelings of resignation, sadness, depression, shock, apathy, disbelief, self-blame, dependency, fear of returning to the scene of the assault, fear of other patients, feeling sorry for the patient who committed the assault, and feelings that they should have done something to prevent the assault. Anger, anxiety, fear of the assailant, and feeling sorry for the assailant were long-term reactions too.

Conn and Lion (1983) examined 2165 assaults over an 18 month period in a 54-bedded psychiatric unit of a large urban teaching hospital through retrospective review of the incident reports. They interviewed some of the staff who had received serious injury from assault. In their view, the victims often suffered from Post Traumatic Stress Disorder with symptoms of insomnia, eating disturbances, anxiety, exaggerated startle responses,

depression, problems in concentrating and flashbacks to the assault. They felt afraid of working with unpredictable or dangerous patients, helpless and vulnerable, and in particular, angry with the assailant and with the administration who was often seen as acting too little, too late.

They also found that injured staff felt a conflict between their professional sense of responsibility to continue in a therapeutic role and their negative feelings about the patient. They expressed fears about their competence.

Other staff sometimes attributed blame to the victim of the assault, suggesting that they might have somehow invited the assault. Conn and Lion (1983) suggest this attribution may serve to defend themselves from the fear that they might also be assaulted. By placing the locus of control in the staff member, they could believe that they could avoid attack by behaving differently from their assaulted colleague.

They make particular reference to the role of counter-transference in managing potentially aggressive patients. They point out that such patients often elicit anger in staff. This may be inadvertently acted out if the patient makes demands on staff. Staff may thwart the demands provocatively or by withdrawing, fuelled by their irritation with the patient rather than based purely on clinical grounds. This can escalate the emotional state of the patient and end in assault.

Lanza (1984) investigated the attributions of blame for patient assault on staff. Her hypothesis was that the experience of assault is a violation of the basic role of the nurse as altruistic carer. Nurses who are assaulted may become less willing to put their own needs secondary to those of the patient and they may adhere less to the norms of professional practice. She suggests that attribution for blame will affect the extent of this tendency. She surveyed 93 female and six male nurses who were predominantly drawn from psychiatric wards, by questionnaire. She found that female staff were more likely to blame the nurse victim for the assault

than were male staff. The sample of male staff was too small to be confident that this was a valid result. She also found that staff who had been assaulted were less likely to blame the victim.

Holden (1985) analysed 310 questionnaires from general nursing staff from 35 health care settings including hospitals and health centres. Of these, 85.8% had been the recipients of some form of assault by patients ranging from verbal aggression to assault causing physical injury. She found that the emotional responses to assault were very similar to those feelings identified in the study by Lanza (1983). These were, in order of frequency of report, anger, anxiety, helplessness, fear, resentment, compassion, lowered self-esteem, depression, no reaction, self-blame, guilt and elation. Student nurses had the highest levels of anxiety, charge nurses showed the highest levels of anger and helplessness and registered (staff) nurses were most resentful.

Unfortunately the study does not make clear if these emotional responses were generated spontaneously or prompted. Nevertheless, they are very similar to those found in the research by Lanza (1983).

Holden (1985) discusses the findings in relations to role conflict; that the negative feelings elicited by patient aggression are in conflict with the altruistic role of nurses and this causes discomforting cognitive dissonance. She also speculates that the high levels of anxiety, anger and aggression in patients may be experienced through the mechanism of projective identification by staff. Staff, in turn, may act out these aggressive feelings towards each other and towards the patients.

Hunter (1989) examined the emotional responses of staff working with young people when restraint had been used to manage situations of violence. He found that staff report anger, sympathy, sadness, pity, guilt and resentment as the most common emotional responses to such

situations. These are broadly similar to those identified by studies described above.

He pointed out that there may be destructive and constructive ways for staff to manage those feelings. He discussed positive anger (the identification with the patient's anger) and negative anger (hatred for the patient). Such feelings may be largely unconscious and therefore prone to being inadvertently expressed towards colleagues and patients (as well as towards people outside the work situation).

He found that women reported that they had more opportunity to discuss their feelings than male staff. He speculates that women make this opportunity and that it serves as a healthy, adaptive way of coping in contrast with male staff who tend to conform to the "tough", strong male stereotypes which require them to deny feelings about such situations.

The only study which uses a prospective methodology to examine nursing staffs' responses to assault is by Ryan and Poster (1989). They interviewed staff after an assault, at six weeks and six months. A series of questionnaires were given at the initial interview, weekly for six weeks, at six months and finally a year after the assault. They used a modified (61 item) version of the Assault Response Questionnaire (Lanza, 1983), a perceived stress scale and the Attitudes Toward Patient Physical Assault Questionnaire. This last measure, designed for their study, explored nurses' attitudes towards such issues as patient responsibility for their behaviour, nurse competence, legal issues and safety concerns.

They found that 67% of assaulted staff showed responses to the assault through the six week follow up, 22% at six months and 23% at one year. Interestingly the composition of the groups showing responses to the assault at six and twelve months were different suggesting some people were showing delayed reactions.

Consistent with Lanza's (1983) findings, the most common emotional response was anger, then anxiety, feeling sorry for the assailant and feeling they should have done something different. Ryan and Poster (1989) note that staff often commented that it was the process of weekly monitoring of their feelings that was making them aware that they had responses to the assault. They thought that they would usually have denied the existence of any reaction.

Ryan and Poster (1989) found that there was a significantly greater proportion of male staff in their sample of assaulted staff. This could not be attributed to hospital policy which was that all staff were trained equally to intervene in assaultive situations. Interviews with male staff suggested that this discrepancy might be due to male staffs' sense of responsibility to be directly involved in managing a violent situation and their tendency to take a lead thereby putting themselves at greater risk of assault. They also found that 51% of staff considered that being hit was part of the job of psychiatric nurses.

In another study, Poster and Ryan (1989) examined nurses' attitudes towards assaults by patients. They gave 184 psychiatric nursing staff the Attitudes Toward Patient Physical Assault Questionnaire. They found that 74% thought that staff working with mentally ill people could expect to be assaulted during their careers. A majority (73%) disagreed with the statement that mentally ill patients are responsible for their behaviour. Forty-three percent thought that prediction of patient assault is within the competence and ability of nursing staff. Poster and Ryan discussed their findings in relation to the previously cited idea that staff who are assaulted are less competent, provoke the patient and are somehow at fault (Conn and Lion, 1983, Lanza, 1984). Self-blame was commonly reported (Lanza, 1983, Poster and Ryan, 1989). Like Conn and Lion (1983) they suggest that this may be an adaptive defence which allows people to believe that future assault would be avoidable if they were to take different action. Such attributions may allow staff to continue to work in a high-incident setting.

Baxter *et al* (1992) developed an alternative Attitudes to Assault Questionnaire to that of Poster and Ryan. They administered this to 425 psychiatric hospital nurses. They identified five interpretable factors: concerns with the high levels of violence, anxiety about the management of assaultive patients, gender differences in capability to deal with violent patients, the prediction of assault and the level of protection and support.

They found that student nurses were much more likely to be assaulted than any other grade of nurse. There was no effect of gender on assault rate. They also found that most staff assumed that assault by a patient was almost inevitable. The actual rate of occurrence of assault correlated positively with this belief. Most nurses thought that patient assault was predictable and 70% thought that some staff invited assault. A substantial minority (44%) thought that nurses were blamed for inviting assault on themselves but this attitude seemed to be attributed to the hospital administration. The administration was seen as not being sufficiently protective of nursing staff or supportive after assault. There was disagreement about appropriate management of assault with confusion about the role of seclusion and restraint. Male staff were more likely than female staff to believe that men were better at managing assault than female staff.

Haller and Deluty (1988) point out that the psychological significance of staff being victims of assault has not been examined. The research emphasis has been on who is likely to assault whom and under what circumstances. They point out that there is likely to be different psychological reasons and meanings for a patient to assault a member of staff rather than another patient.

In summary, the literature on violence by patients tends to be atheoretical. Definitions of violence are unclear or very specific to each study. There is an emphasis on patient assaults on staff at the expense of violence by

patients towards other patients, self-harm and towards property. The literature review revealed almost no research which considered violence by female patients in particular or compared the genders other than prevalence data. There is little consideration of the effects of chronic violence, working in an atmosphere of threat rather than direct assault, witnessing and managing violence against someone else and self-harm.

On the whole, studies have attended to prevalence rates, an analysis of the targets of assault by disciplinary group and the management of violence. Those few which investigate the emotional effects of patient assault on staff find a common set of emotional and cognitive responses to this situation in general (Holden, 1985) and psychiatric nurses (Lanza, 1983, 1984, Conn and Lion, 1983, Poster and Ryan, 1989). The predominant response is of anger, fear and anxiety, guilt and self-blame. There is a tendency to blame the nurse victim of assault. Demographic factors, in particular seniority (grade) (e.g. Holden, 1985) and gender are found to differentiate staff with respect to emotional responses (Nolan *et al*, 1995), ways of coping with these (e.g. Hunter, 1989) and the attribution of blame for the assault (Lanza, 1984).

Discussion of these findings tend to focus on the typical coping strategy of avoidance or denial versus active coping such as talking and acknowledging feelings. Avoidance and denial appear somewhat similar to the state of Depersonalisation identified as a factor of burnout and characterised by emotional hardening, withdrawal and a loss of empathy with patients. Several authors consider their findings within the analytic constructs of transference and counter-transference. In particular, they draw attention to the problems of denial as a main defence against anger elicited by patient violence and the dangers of this anger being acted-out unconsciously by staff in abusive behaviour towards others, particularly retaliation towards the patient. They comment on the role conflict engendered by violence against staff. The professional stance of altruistic

care of patients is much more difficult to maintain when patients are rejecting of care and actively hostile.

There is apparently no research which has specifically examined the relationship between violence and burnout in staff. Superficially, the emotional responses to violence identified in the literature are reminiscent of aspects of burnout. The feelings evoked by assault are similar to Emotional Exhaustion (apathy, depression, helplessness, anger and irritability), Depersonalisation (resignation, withdrawal, resentment, non-reaction and apathy) and a loss of Personal Accomplishment (helplessness, self-blame) (e.g. Lanza, 1983, Holden, 1985, Ryan and Poster, 1989) and the commonly used defences of avoidance and denial are reminiscent of Depersonalisation (e.g. Hunter, 1989). These effects appear to be found both shortly after a violent assault and as longer-term responses (e.g. Lanza, 1983). Although burnout is usually conceived of as a response to chronic stress there is no research which demonstrates this. It is possible that violent assault is a sufficiently powerful stimulus to lead to the development of burnout, or features of burnout, even if the stressor is not chronic. In other words, the development of burnout or aspects of it may be one of the effects of assault or result from witnessing or reading about it.

1.9 Violence by women

There is some empirical evidence that higher levels of violence against others are greater in the services for female psychiatric patients than in equivalent male wards. Fottrell (1980) examined 441 incidents of violence by in-patients across three psychiatric hospitals. He found that women were predominant in his assaultative group of patients. Larkin *et al* (1988) undertook a six month prospective study at Rampton Hospital, one of three maximum security psychiatric hospitals in England. They also found that

women patients were more assaultative than male patients. The secure ward, in which the most disturbed women resided, had an incident rate which was eighteen times greater than the equivalent male ward.

Stokman and Heiber (1980) found that the overall rate of incidents was higher in women but the severity of injury of these assaults was less than those perpetrated by male patients. This suggests that women assault more frequently than men, but less seriously.

However, Tardiff and Sweillam (1982) found no gender differences between assaultative and non-assaultative patients. Tardiff and Sweillam (1979) found that there was an interaction between age and gender with respect to assaultativeness. The majority of assaultative patients under 25 were women. The majority of 25 – 64 year old assaultative patients were men and after 65 there was no gender difference. This suggests that the relationship between gender and violence is complex and may be mediated by factors such as socialisation of innate aggression in gender-defined directions.

Depp (1983) analysed 329 consecutively reported incidents of violence *between patients* in a public mental hospital in the USA. He found that assault by male patients was more common than female patient. Despite an even proportion of male and female patients, in 63% of cases the assailant was male.

A different body of literature examines the meaning of anger and its expression by women. In general, this literature considers what are hypothesised to be socialised norms and expectations about women's anger and reviews empirical evidence for commonly held societal views about gender differences in this respect (e.g. Kopper and Epperson, 1991, Sharkin, 1993).

Generally, women are believed to be more expressive of their feelings than men with the exception of anger. In women, the direct expression of anger is seen as unladylike, unfeminine, unmaternal and sexually unattractive. Generally, it is held that these beliefs are the results of socialisation (e.g. Lerner, 1985). When women begin to feel angry, they block its direct expression but there is an emotional cost to this process and they may instead feel guilt, depression and self-doubt. Wetzell (1984) suggests that it is this pressure on women to defend themselves (and others) from their anger that accounts for the higher rates of depression seen in women.

Empirical evidence for gender differences in the experience and expression of anger is lacking. For example, Sharkin and Gelso (1991) found no gender differences on the Anger Discomfort Scale which assesses the degree to which people feel uncomfortable with their own anger. As Sharkin (1993) points out, most attempts to explore gender differences in this area have utilised self-report questionnaires with college students and have found no gender differences. He suggests that there may be real differences in the ways in which the genders experience and express anger, particularly in clinical populations, but these may need to be accessed using methodology other than self-report. Nevertheless, as things stand, there is no evidence for the commonly held societal view that women deny and "turn inwards" their anger.

The lack of empirical validation may not have affected people's assumptions about women's anger. It is likely that working in a setting with highly assaultative female patients evokes feelings beyond those which would be expected in an equivalent setting where patients are all male. Staff may be less prepared for and understanding of violence by women, which they may see as unnatural and unacceptable. Role conflict is likely to be heightened and the stress arising from situations involving violence by women greater.

1.10 Self harm

"Self-harm" here refers to behaviour whose main purpose is bodily derangement (Tantam and Whittaker, 1992) and would include cutting, skin burning, hitting or punching the body, prevention of wound healing, sticking sharp objects into the body and swallowing foreign bodies. Self-harm is a significant indicator of emotional distress but is differentiated from attempted suicide in that its intent is not lethal, nor intended to convey lethal intent (such as parasuicide). In the case of reactive and habitual self-harm, the behaviour constitutes an end in itself. It often occurs sporadically but repetitively. It can take on qualities akin to addiction in which people become preoccupied by the thought of self-harm and experience a short-term exhilaration similar to the response to some drugs.

Self-harm is distinct from "self-mutilation" (Simpson, 1976), which is a more extreme and uncommon form of self-injury associated with psychosis, in which the intention is to remove a part of the body which has become attributed with moral or other qualities. For example, the eye ("the evil eye") or tongue may be the target of self-mutilation.

As discussed earlier, a broader definition of violence is, an event or situation include an action or threat of an action which may cause physical and/or psychological damage to another person or to the assailant her/himself. Self-harm clearly falls into this category.

Self-harm does indeed appear to be a frequent occurrence in high security settings. A recent study by Low, Terry, Duggan, MacLeod and Power (1997) at Rampton Hospital (one of the other two high security psychiatric hospitals in England) recorded 1,607 separate incidents of self-harm over a 30 month period in a population of 86 women patients. Cutting and scratching were the most common forms of self-harm followed by self-

ligation. Only 1% of incidents were considered to be life threatening and 75% were thought to be of mild to moderate severity. Of the 53 women at Ashworth Hospital studied by Chipchase and Liebling (1996), according to their case files, only three had never harmed themselves. Liebling, Chipchase and Velangi (1997) found that overdose was the most common form of self-harm (it is not clear if the intention was lethal or not). This was followed by wrist-cutting, cutting other parts of the body, banging parts of the body, scratching, attempted strangulation, head-banging/strangulation. The insertion of foreign objects (batteries, pens, wire, and glass) into the vagina, stomach or arms, burning oneself and swallowing foreign objects were less common but not unusual events.

The literature relating to self-harm is more theoretically based than that pertaining to anger and assault. The main theories of self-harm and its treatment are described along with implications for the nursing staff.

The initial act of self-harm may be a means of self-help which signals an unbearable situation, provides a release and communicates distress. Animals who are trapped and neglected, sometimes harm themselves. If the intolerable situation persists, the self-harm may be continued in order to repeat the call for help. This theory would predict that self-harm would eventually be extinguished and as this rarely happens, it seems to be an inadequate theory on its own.

A behavioural model proposes that self-harming behaviour may be positively reinforced in a number of ways: that is, the responses (emotional and behavioural) that the self-harm produces in the person and in others may maintain the self-harm. People who harm themselves often describe a sense of release and peace which is immediately consequent upon the infliction of injury. They describe an euphoric state and this has led to the suggestion that self-harm is like an addiction. Others' responses to prevent the self-harm and/or treat the injuries may also serve to reinforce the behaviour.

There is evidence of an association between self-harm and early abuse and neglect (Briere and Zaidi, 1989). In analytic terms, early abuse and neglect means that the child has no experience of a good and relatively constant relationship to internalise as the basis for a secure sense of self. The predominant experience of the abused child is of pain. The child is unable to integrate their own body into their sense of self because their body is experienced only as a source of pain. Ego development is weak and stress quickly puts the person into a state of ego-fragmentation where they feel depersonalised and derealised. Self-harm is a signal for that state of ego-fragmentation and a way out of it. Cutting brings with it a sense of reality. The patient feels the physical boundaries of the body. The blood shows that the person is alive and restores the fragile ego.

The self-injury can also be seen as a re-enactment of the abusive formative relationship. When someone has internalised only bad inner objects, their sense of themselves is as a bad person, worthy only of further abuse or neglect. With no alternative prototypes for relating to others, the abused person abuses themselves repeatedly by harming themselves.

The range of theories generate a number of types of treatment and these are sometimes in conflict. Medication is often prescribed for people who self-harm but is generally aimed at conditions which may be associated with the self-harm, usually depression.

The addiction model of self-harm has resulted in "detoxification - orientated treatment" which takes into account the sense of withdrawal as self-harm reduces. There is no apparent evaluation of this approach. It is likely that the complex aetiology of self-harm would mean that a unidimensional approach to treatment would be difficult to apply and probably ineffective.

Simple operant and reinforcement models of self-harm are likely to be inadequate given the complex motivations behind self-harm. Because of

the apparent need for abused patients to re-enact their abusive dynamics, punishment may not always be experienced as aversive. Ignoring self-harm may be impossible where the injury is very serious and may only serve to damage the crucial and potentially therapeutic relationship between patient and carer.

Cognitive and inter-personal treatments have been developed to address some aspects of self-harm (e.g. Linehan, 1993). Walsh and Rosen (1988) propose cognitive restructuring to help people view self-harm as disrespect to their bodies and help them to focus on their positive qualities. They and others have suggested the need for social and inter-personal skills training to develop alternative ways of communicating their feelings and experience desensitisation of relationship stress. Liebling and Chipchase (1996) make the case that homogeneous groups for people who self-harm can be helpful. Therapeutic effects may be the opportunity to learn better ways of meeting emotional needs than self harm, development of better communication skills and the benefits of feeling understood. On the other hand, there is a possibility for self-harm to escalate in a group where self-injury becomes the currency which determines status.

Overall, within different psychological models, the communicative aspect of self-harm is emphasised (e.g. Babiker and Arnold, 1997): that it non-verbally expresses anger, powerlessness and fears of abandonment. Others have considered the communicative effects of self-harm in terms of counter-transference, the emotions which the patient elicits in staff as a result of their self-harm, (e.g. Nelson and Grunebaum, 1971). These feelings may be expressed without words, that is, through self-harm, because they originate in events which occurred before the person acquired language. Understanding self-harm as having a necessary communicative function has led some services to practice "safe self-harm" in which patients are issued with sterile razor blades in order to cut themselves under supervision.

The literature about the effects of patient violence on staff does not typically include the effects of self-harm. However, self-harm fulfils the broader definition of violence as discussed above. It is a means of inflicting injury and has a psychological impact on others. The communicative function of self-harm is powerful and it demands response (prevention and care of the injuries). Its high prevalence in secure services (e.g. Low *et al*, 1997) and its contribution to overall levels of violence make it worthy of inclusion into a study about the effects of violence in a high security setting.

1.11 The Women's Services at Ashworth Hospital

Ashworth Hospital is one of three maximum security psychiatric hospitals in England. It provides custody and treatment to about 500 patients, 50 of whom are women. Women are received from prisons and courts, mainstream psychiatric hospitals and medium secure services. For a person to be detained at Ashworth, they must be diagnosed under the Mental Health Act, 1983 (HMSO, 1983), as a "grave and immediate" danger to themselves or others, and treatable.

The women patients are most often detained under Section 37, a treatment order, often with a restriction order (Section 41) applied. This means that the Home Office must endorse clinical and medical decisions about the patient, such as permission for trips out of the hospital, transfer or discharge. It constitutes the most restrictive order available. Some women are at Ashworth for the purpose of assessment on a short-term, renewable basis (Section 38). Others are transferred from prison, where their psychological state may have deteriorated, sometimes short-term, and subsequently return there after treatment. The average length of stay for

women in this service is 6.35 years (range 0.4 to 16.6 years). The average age of the women is 34.0 (range 18 to 63 years).

The women live on four women-only wards in the less secure and less foreboding part of the hospital. Three of the wards are Victorian single storey buildings converted to high security accommodation. The fourth, Amber, is purpose-built, also single storey and the fabric of the building is such that only women who have no recent history of violence can be admitted to that ward. The wards are organised into different levels of "dependency". Beeches is the acute and admission unit, and has eight beds and higher staffing ratios. New patients usually arrive in Beeches for assessment and will be transferred to other wards according to their needs and bed availability. The level of disturbance, self-harm and assault are highest on this ward. Cedars is a twelve bedded ward for those patients who are more settled. Nevertheless, incident rates are high on this ward too. Women who live on Beeches and Cedars tend to have diagnoses of personality disorder, often borderline personality disorder, or dual diagnoses of personality disorder and mental illness. Acacias is a fifteen bedded ward for women who are predominantly diagnosed with mental illness. Amber is a pre-discharge ward with fifteen beds.

Incidents are classified as follows: Category A is any unexpected death however cause, Category B is any life threatening activity whatever the intention. Examples of this would be hostage-taking, severe assault particularly with a weapon, escape or absconding, serious sexual assault. Category C is serious assault, significant destruction of property, sexual assault, self-harm resulting in serious injury. Category D is verbal assaults, minor assaults, minor damage against property, minor self-harm. Incidents are identified and categorised largely by the severity of their effect. Although the incident categorisation system includes non-violent incidents such as absconding, this is an extremely rare occurrence and the figures presented below can be taken to refer to violent episodes.

Table 1.1 – Frequency of incidents on Women's Wards for the year June 1997 to May 1998

Ward	Incident categories			
	D	C	B	A
Acacias	72	22	2	0
Amber	56	10	7	0
Beeches	311	94	10	0
Cedars	304	65	8	1

Figures from the Quality Development Department, Ashworth Hospital

Table 1.1 shows that less serious incidents (C and D) are much more common than more serious (A and B) incidents. The high dependency wards, Beeches and Cedars, have a much higher rate of all kinds of incident than the ward for women with mental illness (Acacias) or the pre-discharge ward, Amber. It should be noted that although each category of incidents is defined operationally, it is likely that judgements (particularly about whether an incident is category B or C) may not be made consistently. The accuracy of the data should be considered with this in mind.

Assaults include pushing, spitting, hair-pulling, biting, hitting and kicking. Victims of assault are quite often injured with bruises and lacerations but also broken noses, dislocated knee-caps and fingers. Injuries are often sustained whilst staff are attempting to restrain an agitated patient. Weapon assault is very rare because of strict procedures on the ward for managing potential weapons.

Table 1.2 below shows the incident rates and severity in the Women's Services in comparison with the rates found in the male wards. The data is consistent with that of Fottrell (1980) and Larkin *et al* (1988): the frequency of violence by the women patients is greater than that of the men. The table also suggests that the seriousness of incidents perpetrated by women is greater than those perpetrated by men. There are approximately 2.5 times as many less serious (D and C) incidents in the women's wards, about five

times as many B incidents and 2.5 times as many A incidents. The base rate for A incidents is so low as to render this ratio meaningless but the proportions of D, C and B incidents does suggest that not only is the frequency of violence in Women's Services greater than that found on the male wards, but its severity is greater too. This is in contrast with Stokman and Heiber (1980) who found greater frequency of violence by women but suggest that it was of lesser severity.

Table 1.2 – Average incident rates per ward for year June 1997 to May 1998

<i>Ward</i>	<i>Incident Category</i>			
	<i>D</i>	<i>C</i>	<i>B</i>	<i>A</i>
Male	74.29	20.23	1.33	0.1
Female	185.75	47.75	6.75	0.25

Figures from the Quality Development Department, Ashworth Hospital

Sickness levels are higher for wards in the Women's Services (average sickness absence was 15.25% for the months of June 1997 to May 1998) than in the male wards (7.22% for the same time period) in the rest of the hospital.

There are no general guidelines for the management of self-harm or violence directed at another person. The philosophy is that women are treated as individuals according to their particular needs. Response to self-harm, for example, would depend on the specific psychological formulation or understanding of the self-harming behaviour and measures would be taken which arose out of the formulation. For example, if it was believed that self-harms arose predominantly because the patient was trying to express her needs maladaptively, attempts would be made to talk with her and facilitate a more adaptive means of communication. If the patient is self-harming because of high levels of arousal, they might receive medication or be helped to relax. In fact, for all forms of violence, patients are often put on "close observations" on a one-to-one or two-to-one basis, and in the case of violence against others, patients are often secluded.

1.12 Summary and hypotheses

Absolute differences between nurses working in a variety of settings (general, psychiatry and forensic services) in experienced stress and burnout have not been demonstrated. There are individual factors including demographic variables (in particular gender and seniority) which are associated with the experience of stress and burnout. However, the studies which ask nurses to identify what they find stressful typically report violence by patients as a major cause for concern.

The literature relating to violence by patients is almost entirely atheoretical and focuses almost exclusively on patient assaults on staff: the prevalence, target groups and management of violence. Definitions of violence tend to be absent or very narrow; usually including an act by a patient which causes physical injury to staff. This excludes consideration of the psychological effects of violence and its effects when not directed at staff, for example, patient assault on another patient, on property and self-harm. In fact, there appear to be no studies which investigate differential effects of parameters of violence, such as severity, chronicity or target group. The experience of working in a chronically threatening or dangerous environment, independent of assault frequency has also not been examined.

It appears that there are widely held beliefs that men and women experience and express anger differently, particularly that women do not or should not be angry or violent. Although empirical research does not bear this out, it seems likely that such beliefs remain pervasive. It is probable, then, that working in a setting in which women are frequently violent challenges basic beliefs and attitudes and may be experienced as more disturbing and unacceptable than working with violent men. This study explores the feelings of staff in response to working with such a group that may challenge these norms: violent women.

Self-harm is an extremely common occurrence in the Women's Services at Ashworth Hospital. It can be seen as a form of violence: an act which may cause psychological and physical trauma to the perpetrator and to others. The literature pertaining to self-harm tends to view it as a separate phenomenon rather than as another form of violence.

This study extends previous research in that it focuses explicitly on staff reactions to violent women, and broadens the investigation of the effects of violence to include self-harm and assault by a patient on another patient, as well as assault by a patient on a staff member.

This research examines staff reactions to violent women in terms of their specific emotional responses to violent situations. It also considers the relationship between violence and burnout in staff. As burnout is manifest in changes in feelings about patients, it may be expected that level of burnout will be predictive of the nature of staff's emotional responses to situations of violence. However, the similarities between aspects of burnout and the typical emotional reactions to violence, suggest that burnout may be a *result* of violence as well as an influence on emotional reactions to violence. This notion challenges the unproven assumption that burnout is a relatively enduring state which develops over time. This study investigates emotional responses to violence by women and considers burnout as a variable which may have both causal and consequential relationships with the experience of violence.

The following hypotheses are examined:

1. That violence directed at different parties (self-harm, aggression by a patient towards another patient, and towards a member of staff) will be associated with different emotional responses in nursing staff.

2. That violence directed at different parties (self-harm, aggression by a patient towards another patient, and towards a member of staff) will be associated with different types and degrees of burnout in nursing staff.
3. That the type and degree of burnout experienced by staff will be associated with their emotional responses to incidents of violence.
4. That demographic characteristics of staff will be associated with their emotional responses to incidents of violence and with the type and degree of burnout.

Chapter 2 – Method

2.1 Participants

The participants were drawn from all the nursing staff including bank nurses who worked on any one of the women's four wards between September 1997 and February 1998.

This comprised a pool of 126 staff. At the time the researcher sought to interview staff, sixteen were on maternity or long-term sick leave, leaving 110 possible subjects. Of these, five declined to take part and thirty were unavailable or not on duty at any of the times the researcher was present. For six months the researcher attended the ward regularly and interviewed those staff who were present and willing to take part. Attempts were made to contact any staff who had not been available at those times, by telephone and arrange a convenient time to conduct the interview but was not pursued if staff did not return the phone call or appeared reluctant. This left a final sample of 75 staff members, 59.5% of the total pool of 126. The representativeness of the final sample and possible sample bias are discussed later.

2.1.1 Selection and recruitment

Staff were approached during their shift, on the ward, and the purpose of the study was explained briefly, orally. They were invited to participate, and if they were willing, they were given a sheet of information for possible participants (Appendix 2).

In the majority of cases (75 out of 110), the staff agreed to take part. The research was administered then and there, or at a later time, depending on the staff member's convenience.

2.1.2 Demographic description

Basic demographic data were collected and the sample is described below.

Of the 75 staff in the sample, 29 (39%) were male and 46 (61%) female. The average age was 38.71 years (s.d. = 8.58, range 22 to 59 years). For the male staff, the mean age was 37.62 years (s.d. = 7.91, range 25 to 59 years) and for the female staff the mean age was 39.39 years (s.d. = 8.99, range 22 to 58). There was no significant difference between male and female staff with respect to age ($t = -0.87$, d.f. = 73, n.s.).

The average length of service at Ashworth Hospital was 9.68 years (s.d. = 6.90, range 0.5 years to 27 years). Male staff had worked at Ashworth for an average of 11.97 years (s.d. = 6.95, range 0.5 to 26 years) compared with female staff with an average service of 8.24 years (s.d. = 6.53, range also 0.5 to 27 years). The difference was statistically significant ($t = 2.35$, d.f. = 73, $p < 0.05$).

The average period of time spent working on the Women's Services was 5.65 years (s.d. = 5.20, range 0 to 27 years). The male staff had worked for shorter periods of time with the women patients (mean = 3.57, s.d. = 3.01, range 0 to 11 years) than the female staff (mean = 6.96, s.d. = 5.86, range 0.5 to 27 years). This difference was statistically significant ($t = -3.29$, d.f. = 70.67, $p < 0.05$). Levene's Test for Equality of Variance was not met in this case.

Thus, whilst male and female staff did not differ in age, male staff had worked for a longer period of time at Ashworth but for fewer years in the Women's Service than the female staff.

For the purpose of description and statistical analysis staff grades were categorised as follows: Nursing Assistants (grades A and B), Staff Nurses (grades C, D and E), Charge Nurses (F and G) and Ward Managers (H). This grouping reflects the functional organisation of nursing staff at Ashworth Hospital. 35 (46.7%) were unqualified nursing assistants (grades A and B), 29 (38.6%) were staff nurses (grades D and E), 9 (12%) were charge nurse grade (F and G) and 2 (2.6%) were H grades, the ward managers.

Full-time staff numbered 69 (92%) and there were 6 (8%) part-time staff. The hours comprising part-time were not determined. The majority of the staff 67 (89.3%) were permanent, with 8 (10.7%) employed as bank staff. Two bank staff appear to have opted to work only on one ward (see Table 2.1). Sixty-one (81.3%) were employed as staff on day shifts during the time of the study, 14 (18.7%) were on nights.

Table 2.1 shows the distribution of the sample according to which of the four women's wards they usually worked on. "Other" denoted bank staff who are not employed to work consistently on any particular ward.

Table 2.1 - Distribution of staff across wards

<i>Ward</i>	<i>N</i>	<i>%</i>
Acacias	14	18.7
Amber	18	24.0
Beeches	20	26.7
Cedars	17	22.7
Other	6	8.0
Total	75	100.0

2.2 Materials

2.2.1 Maslach Burnout Inventory (MBI)

The Maslach Burnout Inventory – Human Services Survey (Maslach *et al*, 1996) (Appendix 1) was used as the measure of stress outcome. It is designed specifically for staff in the “human” and education services in which there is intense involvement with other people. The MBI was chosen for this study because of its focus on the interpersonal causes and consequences of work. It is likely that the effects of violence by patients will be expressed interpersonally by staff in terms of their responses to violent patients. In addition, the MBI has the advantage that it is a very widely used measure for the effects of occupational stress and therefore allows comparisons with other work.

The MBI is designed to measure the three aspects of burnout: Emotional Exhaustion, Depersonalisation and Personal Accomplishment. Each aspect is measured on a separate subscale. The Emotional Exhaustion subscale assesses feelings of being emotionally overextended and exhausted by one's work. The Depersonalisation subscale measures an unfeeling and impersonal response towards the receivers of the care or treatment. The Personal Accomplishment subscale assesses feelings of competence and successful achievement in the person's work with people.

The measure comprises 22 items concerning emotional responses to their work, e.g. “I can easily understand how my recipients feel about things”. Respondents are asked to rate the frequency with which they experience such feelings on a six point, anchored response format from “never” (0) to “every day” (6).

Burnout is conceptualised as a continuous variable ranging from low to high degrees of experienced feeling, rather than a state which is either present or absent. A high degree of burnout is reflected in high scores on Emotional Exhaustion, Depersonalisation and low scores on the Personal Accomplishment subscales. A low degree of burnout is reflected by the converse pattern.

Scores are considered high if they fall in the upper third of the normative distribution, average if they fall in the middle third and low if they lie in the bottom third. The concept of burnout is not sufficiently understood for the three subscale scores to be combined in a conceptually meaningful way, and no such inter-relationship has been demonstrated empirically. Therefore, the subscale scores are computed separately and not computed into an overall score.

Internal consistency for the subscales is estimated by Cronbach's coefficient alpha: 0.90 for Emotional Exhaustion, 0.79 for Depersonalisation and 0.71 for Personal Accomplishment. The standard error of measurement is 3.8 for Emotional Exhaustion, 3.16 for Depersonalisation and 3.73 for Personal Accomplishment. Test-retest reliability has been found to be significant beyond the 0.001 level (Maslach *et al*, 1996).

Convergent validity has been demonstrated by correlating subscale scores with behavioural ratings made independently, with the presence of job characteristics and other variables known to be associated with burnout (e.g. insomnia, alcohol and drug use). The validity of the MBI has been convincingly demonstrated by this. Discriminant validity has been shown by studies that find that the MBI appears to be measuring a construct other than job dissatisfaction, and depression (see Maslach *et al*, 1996).

2.2.2 Vignettes

Vignettes were used to elicit responses regarding staff's feelings in three violent situations which were likely to be familiar experiences for staff working in this environment (see Appendix 3).

Three vignettes were designed to compare the staff's emotional responses to a situation in which a patient harmed herself, one in which she harmed a member of staff and a third in which she harmed another patient. The facts of each vignette were kept constant apart from this variable. The vignettes were used first as part of the development of the Emotional Response Questionnaire (see 2.2.3 below). They were modified slightly on the basis of feedback from pilot participants.

2.2.3 The Emotional Response Questionnaire (ERQ)

This was designed specifically for the purpose of this research study. It is a measure of the emotional reactions which staff report to each of the three vignettes described above. The measure was designed by means of a pilot study which will now be described.

2.2.3.1 Pilot sample

Twelve people participated in this pilot stage. These were all nursing staff who had worked in the Women's Services within the last two years but were no longer involved with the service directly.

The demographic characteristics of the pilot group is as follows: of the 12 staff in the sample, 5 (41.6%) were male, and 7 (58.3%) female. The average age was 35.75 years (s.d. = 4.16, range 28 to 40 years). The mean age for male staff was 38.20 (s.d. = 2.39, range 34 to 40 years) and for female staff 34.00 (s.d. = 4.40, range 28 to 39 years). The average length of service at Ashworth Hospital was 10.46 years (s.d. = 5.40, range 2.5 to 21 years). The mean length of service at Ashworth Hospital for men was 14.50 years (s.d. = 5.10, range 8 to 21 years) and for women, 7.57

years (s.d.=3.59, range 2.5 to 13 years). The average period of time spent working on the Women's Services was 5.83 years (s.d. = 2.65, range 2 to 10 years). For male staff, the mean length of time in the Women's Service was 5.20 years (s.d. = 2.39, range 2 to 8 years) and for the female staff, 6.29 years (s.d. = 2.91, range 2 to 10 years). In all cases, the number in the pilot group (12) was too small to allow statistical comparisons by gender.

The grade distribution is as follows: One (8.33%) was an unqualified nursing assistant (grades B), 7 (58.33%) were staff nurses (grades D and E), 4 (33.33%) were charge nurse grade, none were H grades, the ward managers, and one person's grade was unknown. All were full-time and permanent staff. They were all employed on the day shifts at the time of the study.

2.2.3.2 Comparison between the main and pilot samples

Demographic information for the main sample and the pilot group was compared statistically (see Appendix 4). There were no significant differences found between the pilot and main sample populations with respect to the demographic characteristics of gender, age, years spent working at Ashworth Hospital, years spent working in the Women's Services, whether staff were full or part time, worked on night or day shifts or were permanent or bank staff.

There were differences between the main and pilot samples with respect to their grade (Chi square = 8.11, d.f. = 3, $p < 0.05$). It is likely that these differences are due to the skewed distribution of the pilot sample with respect to this variable. The pilot group contained disproportionately fewer Nursing Assistants (grades A and B) in comparison with the main sample. Therefore in all but one respect, the pilot staff were not significantly different from the main sample and the use of the pilot staff to develop the ERQ was validated.

2.2.3.3 Derivation of emotions

A list of emotions was derived from two sources:

- “Brain-storming” by the author
- The Profile of Mood State (McNair, Lorr and Doppleman, 1971). This is designed primarily to measure emotional effects of medication in large drug trials. It consists of 72 emotional adjectives designed to measure tension, fatigue, depression, anger-hostility, confusion, friendliness and vigour. Although this measure is designed for very difference usage, it provided a useful pool of emotional terms from which to develop the EPQ for this study

When repetitions had been eliminated, 68 items were left (see Appendix 5). Each person in the pilot sample was asked to consider one of the three vignettes. In this way four pilot people responded to each vignette. They were then asked to read through the list and eliminate two types of emotion:

- Those that they considered neither they nor any of their nursing colleagues would feel in the situation described by the vignette. By asking staff to consider their own *and other nursing staff's possible responses*, the intention was to enable the staff to identify a wider range of emotional responses including many with a possible negative connotation.
- Any emotional responses which did not make sense to the situation described, were ambiguous or confusing. For example “effective” in response to the self-harm vignette was considered to be confusing.

Each person was then asked to rate the remaining emotions as “high” or “low” with respect to how likely they or another nurse would be to feel that emotion in the situation described by the vignette. In order to avoid

influencing staff members' categorisations, there were no restrictions on how many or few emotions each person could choose to rate as "high" or "low".

Finally, each person was asked to rank order the items which they had rated as "high" from 1 (most likely response) onwards.

2.2.3.4 Test-retest reliability

In order to ascertain the reliability of the pilot methodology, three of the pilot sample were retested with vignettes which had been slightly modified on the basis of feedback obtained during the pilot study. The retests took place a minimum of 4 weeks after the first test.

When the "high/low" rating was considered, there was reasonable test/retest reliability.

Subject 1 - self-harm vignette - Of the 28 items this person initially selected as "high", s/he chose 15/28 on retest (54%).

Subject 2 - attack on staff - 18/22 (82%)

Subject 3 - attack on patient - 7/10 (70%)

This amounted to a 40/60 or 67% test/retest reliability which was considered sufficient to proceed.

2.2.3.5 Selection of items for the ERQ

For the purpose of the pilot study and its analysis, the dichotomous ratings of emotions into "high/low" were considered as the main basis for selection of emotional variables. The reasons for this are as follows:

It became clear during the pilot study that it made intuitive sense to staff to describe an emotional response as “highly/less likely” to each of the vignette scenarios. They were less comfortable with rank orderings and often expressed concern about the validity of ranking the emotions and suggested that in many cases they could not make a valid separation between certain items.

Thirteen emotions were not rated by any of the 12 pilot subjects as being a likely response to any of the three vignettes and were therefore eliminated from the Emotional Response Questionnaire. These are shown in Appendix 5.

The remaining items were considered and selected for the final measure according to the following principle: that the item was considered “highly” likely as an emotional response to at least two out of three of the vignettes. In other words, the item was a common response across the majority of the vignette scenarios.

Items were included:

1. If two or more people in each of the vignette conditions selected them as “highly likely” as emotional responses to that vignette (i.e. a minimum of 6 pilot subjects selected the item as “high”) or
2. If they were rated as “highly likely” by three or more respondents in one vignette condition and by least one in another vignette condition.

This generated a list of 23 items for inclusion in the emotional measure versus 32 items which were not selected. The mean rank ordering of the selected items was 8.87 and for the not-selected items 10.3.

In addition, it was observed that one emotional item which the author feels strongly in response to self-harm, nausea, had not been selected. In order to offset the possibility that pilot subjects were less likely to admit to such a response, this item was included, making a 24-item scale.

The questionnaire was designed as a Likert scale in which responses are made on a 10 cm line according to the degree to which the participant thought they would be likely to experience the particular emotion (from “not at all” to “very much so”). Scores were determined by the distance of the mark along the line.

The resulting measure, the Emotional Response Questionnaire, is attached as Appendix 6.

2.3 Procedure

Staff were seen individually, in a private room on the ward away from the main patient area. They were however, on duty and occasionally subject to interruptions.

The purpose of the research was reiterated and staff were reminded of the “Information for possible participants” (see Appendix 2) and given another copy if necessary. An emphasis was placed on the “informal” nature of the study: that there were no right or wrong answers, no time limits and that staff could ask questions at any time, if they wanted. In the case of questions relating to the content of the measures which might have influenced the staff's responses, the researcher answered neutrally and encouraged the staff member to make their own choice in answering the items.

Demographic data were collected first by the researcher asking for details and recording these on a standard sheet (see Appendix 7). Each subject was then given one of the three vignettes to read, followed by the Emotional Response Questionnaire. In this way, each vignette was responded to by about 25 staff. They were asked to rate the degree to which they would feel each of the 24 emotions in response to the situation described in the vignette. Finally, they were given the Maslach Burnout Inventory to complete. The procedure took on average about 15 minutes to complete.

After the questionnaires were completed, the researcher found that staff were often eager to reflect on thoughts and feelings about their work which the research had prompted and therefore often engaged in further discussion about working in the Women's Services. This did not constitute a semi-structured interview as such. However, the quality of such comments was rich and contributed to an understanding of the experience of working in this setting. Comments were recorded informally as accurately as possible but not necessarily verbatim.

Finally, the staff member was thanked and arrangements for the feedback of the findings were explained.

Chapter 3 – Results

3.1 Introduction

The results are presented as follows: first preliminary data analysis is described and then the results are presented to address the hypotheses of the study. Where the probability level does not reach significance, n.s. is used to denote non-significance. In all cases, no assumptions have been made about the direction of the relationship between variables and so, where relevant, 2-tailed tests have been used. In all cases where t-tests were used, homogeneity of variance was demonstrated by use of Levene's test for equality of variance, unless otherwise stated.

3.2 Preliminary analyses

3.2.1 Factor analysis

The Emotional Response Questionnaire was analysed using a Principle Components Analysis, with a variance maximising (varimax) rotation in order to reduce the 24 variables of the ERQ to conceptually meaningful factors. Principal components analysis is preferred to factor analysis when the main aim of the analysis is the reduction of variables rather than the detection of structure. Simple fit was achieved through varimax rotation.

Extraction by the Kaiser criteria (Eigenvalues greater than one) yielded six factors. Of these, the scree test showed that two were valid. These accounted for 46.97% of the variance. Each of the other four would have accounted for about 10% of the remaining variance. In other words they

were positioned at the asymptotic portion of the Eigenvalue plot. They were impossible to interpret meaningfully.

The variables comprising the two factors and their factor loadings are shown in Table 3.1 below. The Eigenvalue for Factor 1 was 8.12. It accounted for 33.85% of the variance. This factor was comprised of 16 items which reflect negative emotional responses and will be referred to as *Negative Affect*. The mean score on Negative Affect was 60.36 (s.d. = 29.14, range 6.0 to 133.0). Cronbach's alpha was 0.92. This is a measure of internal consistency of the factor and suggests that there was a high degree of internal consistency and suggests that Negative Affect was indeed measuring a coherent underlying factor. The average inter-item correlation was 0.43. It is of note that the item of *nausea* which was included in the ERQ by the author although it was not identified through the pilot study, loaded significantly onto Negative Affect.

The Eigenvalue for Factor 2 was 3.15. It accounted for 13.12% of the variance. This factor comprises five positive responses and was therefore labelled as *Positive Affect*. The mean score was 31.71, (s.d. = 7.39, range was 13.5 to 50.0). Cronbach's alpha was 0.75 which suggests a reasonable internal consistency and that the factor of Positive Affect was reflecting a coherent underlying dimension. Average inter-item correlation was 0.37.

Table 3.1 – Variables and their loadings on the factors of Negative and Positive Affect

Negative Affect		Positive Affect	
Variable	Loading	Variable	loading
Anxious	0.83	Compassionate	0.77
Uneasy	0.79	Helpful	0.77
On edge	0.78	Sympathetic	0.70
Tense	0.77	Empathic	0.63
Vulnerable	0.76	Alert	0.44
Shaky	0.71		
Fatigued	0.68		
Confused	0.67		
Unhappy	0.65		
Nauseous	0.63		
Fed up	0.62		
Angry	0.62		
Annoyed	0.62		
Guilty	0.58		
Hopeless	0.57		
Discouraged	0.42		

The following items did not load significantly onto either factor:

friendly

worthless

deceived

3.2.2 Frequency of reported experience of each vignette situation

Table 3.2 - Frequency of reported experience of such a situation by vignette

Vignette	often	occasionally	never	Total
self harm	17	6	3	26
attack on staff	10	12	3	25
attack on patient	15	9	-	24
Total	42	27	6	75

There was no significant difference in the frequency with which staff had encountered each of the three vignettes (Chi square = 6.78, d.f. = 4, n.s.). In other words, the likelihood that staff had actually encountered the vignette situation they were responding to, was the same for all vignettes.

3.2.3 Range of MBI and ERQ scores in response to each vignette

The mean scores, standard deviations and range of scores on each of the MBI subscales and the two ERQ factors, for all vignettes together and each vignette separately, are shown below.

Table 3.3 - Distribution of scores on MBI and ERQ Factors (all vignettes)

<i>Factor</i>	<i>Mean</i>	<i>s.d.</i>	<i>Minimum</i>	<i>Maximum</i>	<i>N</i>
*DP	8.63	6.01	.00	23.00	75
EE	19.20	11.60	.00	41.00	75
PA	33.05	7.51	14.00	45.00	75
NA	60.36	29.34	6.00	133.00	75
Pos A	31.71	7.44	13.50	50.00	75

*DP = Depersonalisation
 EE = Emotional Exhaustion
 PA = Personal Accomplishment
 NA = Negative Affect
 Pos A = Positive Affect

Table 3.4 - Distribution of scores on MBI and ERQ Factors ("self-harm") vignette

<i>Factor</i>	<i>Mean</i>	<i>s.d.</i>	<i>Minimum</i>	<i>Maximum</i>	<i>N</i>
*DP	9.04	5.19	.00	20.00	26
EE	21.00	8.71	1.00	38.00	26
PA	30.08	8.69	14.00	42.00	26
NA	48.23	21.33	10.00	87.50	26
Pos A	32.67	6.40	16.00	42.50	26

Table 3.5 - Distribution of scores on MBI and ERQ Factors ("attack on staff" vignette)

<i>Factor</i>	<i>Mean</i>	<i>s.d.</i>	<i>Minimum</i>	<i>Maximum</i>	<i>N</i>
*DP	5.84	5.15	0.00	15.00	25
EE	17.4	12.83	0.00	41.00	25
PA	35.88	6.33	23.00	45.00	25
NA	76.22	33.13	23.00	133.00	25
Pos A	31.12	8.90	13.50	50.00	25

Table 3.6 - Distribution of scores on MBI and ERQ Factors ("attack on patient" vignette)

<i>Factor</i>	<i>Mean</i>	<i>s.d.</i>	<i>Minimum</i>	<i>Maximum</i>	<i>N</i>
*DP	11.08	6.66	0.00	23.00	24
EE	19.13	13.09	1.00	41.00	24
PA	33.33	6.23	23.00	43.00	24
NA	56.98	26.04	6.00	99.00	24
Pos A	31.29	7.01	19.00	42.00	24

The distributions of scores do not appear skewed. This suggests that there is no particular response bias for any of the vignettes. It was assumed that the data are normally distributed and parametric tests were used in the further analyses.

3.2.4 Correlations between MBI subscale scores and ERQ factor scores.

The correlations between the ERQ factor scores and MBI subscale scores for all vignettes taken together are shown below (Table 3.7).

Across all vignettes, as would be expected, the correlation between the factors of Negative Affect and Positive Affect was low and negative ($r = -0.05$, d.f. = 75, n.s.).

There was a strong, positive correlation between Depersonalisation and Emotional Exhaustion ($r = 0.62$, d.f. = 75, $p < 0.001$). Maslach *et al* (1996) state that the development of Depersonalisation is related to the experience of Emotional Exhaustion and so a positive correlation between the two is to be expected. There was a significant negative association between Personal Accomplishment and Emotional Exhaustion ($r = -0.26$, d.f. = 75, $p < 0.05$).

With respect to the ERQ factors and MBI subscales, the correlations were all in a conceptually meaningful direction but only two correlations reached statistical significance. Negative Affect was positively correlated with Emotional Exhaustion ($r = 0.49$, d.f. = 75, $p < 0.001$) and Positive Affect was negatively correlated with Emotional Exhaustion ($r = -0.28$, d.f. = 75, $p < 0.05$).

Table 3.7 - Correlation matrix for subscales on MBI and ERQ Factors (all vignettes, N=75)

	<i>DP</i>	<i>EE</i>	<i>PA</i>	<i>Negative Affect</i>	<i>Positive Affect</i>
DP	-	0.62 $p < 0.001$	-0.17 n.s.	0.22 n.s.	-0.05 n.s.
EE		-	-0.26 $p < 0.05$	0.49 $p < 0.001$	-0.28 $p < 0.05$
PA			-	-0.01 n.s.	0.17 n.s.
Negative Affect				-	-0.05 n.s.

Significant correlations between MBI subscales and the ERQ factors for each vignette separately are reported below.

In the case of the “self-harm” vignette, Emotional Exhaustion was significantly correlated with Negative Affect ($r = 0.48$, d.f. = 26, $p < 0.05$) and Depersonalisation was significantly correlated with Negative Affect ($r = 0.41$, d.f. = 26, $p < 0.05$). In the case of the vignette describing an attack by a patient on a member of staff, Emotional Exhaustion was significantly correlated with Negative Affect ($r = 0.58$, d.f. = 25, $p < 0.05$). In the case of the “attack on patient” vignette, Emotional Exhaustion was significantly correlated with Negative Affect ($r = 0.71$, d.f. = 24, $p < 0.001$) and negatively correlated with Positive Affect ($r = -0.45$, d.f. = 24, $p < 0.05$). Depersonalisation was significantly correlated with Negative Affect ($r = 0.49$, d.f. = 24, $p < 0.05$) and Personal Accomplishment was negatively correlated with Negative Affect ($r = -0.47$, d.f. = 24, $p < 0.05$).

Across all three vignettes and for each vignette separately the correlations between MBI subscales and ERQ factors were in a conceptually meaningful direction. A number of the correlations, particularly those between Emotional Exhaustion and the ERQ factors, reached statistical significance. This suggests that the MBI (in particular Emotional Exhaustion) and the ERQ may be measuring similar or overlapping underlying dimensions.

3.2.5 Comparison of MBI scores with published means

Statistical comparison of Maslach Burnout Inventory scores with those obtained in other studies of mental health professionals is not possible without the original data. Instead, the mean MBI scores found in this study were compared, by eye, with mean scores obtained in various published studies which used the MBI, and with the norms for MBI scores in mental health workers published in the MBI handbook (Maslach *et al*, 1996) (Table 3.8).

Inspection of the data indicates that the MBI scores of nursing staff in the Women's Services were broadly comparable with those found in other studies of psychiatric nurses which used the MBI. Mean scores in the present study on both the Emotional Exhaustion and Personal Accomplishment subscales were within the range of published studies. However, Depersonalisation scores were somewhat higher. The method of comparison by eye is crude and suggestive only of differences, but has been utilised elsewhere as a method of comparison (Leiter and Harvie, 1996). The comparisons are shown in Table 3.8 below.

Table 3.8 - Means and standard deviations for MBI scores in a range of mental health workers

Authors and Samples	EE mean	EE s.d.	DP mean	DP s.d.	PA Mean	PA s.d.
Dolan (1987) 30 psychiatric nurses	12.37	8.15	5.47	4.84	36.63	7.89
Sullivan (1993) 78 acute psychiatric nurses	20.00	7.05	7.40	5.50	34.50	6.80
Fagin et al (1996) 317 ward psychiatric nurses	20.38	11.99	7.40	6.21	32.33	8.84
Fagin et al (1996) 145 qualified psychiatric nurses	19.31	11.40	5.46	5.41	32.84	7.81
Fagin et al (1996) 182 psychiatric nurses	21.25	10.35	7.93	6.40	32.85	7.57
Maslach et al (1996) 730 mental health workers* (MBI manual)	16.89	8.90	5.72	4.62	30.87	6.37
Present study 75 forensic psychiatric nurses in Women's Services	19.20	11.60	8.63	6.01	33.05	7.51

*sample comprised psychologists, psychotherapists, counsellors, mental health hospital staff and psychiatrists.

Scores on each of the three subscales were somewhat higher than the MBI norms (Maslach et al, 1996).

3.2.6 Comments made by staff during the research administration.

The comments made by staff were not generated by means of a structured or semi-structured interview. They were offered spontaneously during the administration of the questionnaires. As such, they do not meet the requirements of scientific rigour and are included to add a qualitative “flavour” to the data rather than to be used as evidence of a theme or fact. General themes are identified here and the comments are used to illustrate relevant points in the discussion.

Comments by staff regarding their emotional responses were very often about self-harm. The impression conveyed was that staff feel shocked and helpless in the face of self-harm. They acknowledged the “cutting off” and blunting of affect which seemed to be the result of chronic exposure to violence.

There were some more optimistic comments which alluded to the possibility of developing a relationship, understanding and tolerance with the patients which could protect staff from some of the negative emotional reactions which were typically experienced.

The strong impression gained from comments about the management of violence was that staff felt confused and uncertain about what they should do and what, if anything, was effective. When comments were made about management and its support these were negative.

Whilst many staff suggested that peer relationships were the major source of support, there were several comments which located blame in other staff.

3.3 Hypothesis 1

That violence directed at different parties (self-harm, aggression by a patient towards another patient, and towards a member of staff) will be associated with different emotional responses in nursing staff.

Analysis of variance was used to examine the relationships between the type of vignette and Emotional Response Questionnaire factor scores.

There was a significant association between the type of vignette and Negative Affect scores ($F = 7.01$, $d.f. = 2,72$, $p < 0.01$). Post hoc testing using the Tukey-HSD test showed that "attack on staff" was associated with significantly greater Negative Affect scores than "self-harm" and "attack on patient".

There was no significant association between the type of vignette and Positive Affect scores ($F = 0.31$, $d.f. = 2,72$, $n.s.$).

3.4 Hypothesis 2

That violence directed at different parties (self-harm, aggression by a patient towards another patient, and towards a member of staff) will be associated with different degrees of burnout in nursing staff.

Analysis of variance was used to examine the relationships between the type of vignette and MBI subscale scores.

There was a significant association between the type of vignette and Depersonalisation scores ($F = 5.31$, $d.f. = 2,72$, $p < 0.01$). Post hoc testing

using Tukey's HSD showed that "attack on patient" was associated with a greater degree of Depersonalisation than "attack on staff".

There was a significant association between the type of vignette and Personal Accomplishment scores ($F = 4.16$, d.f. = 2,72, $p < 0.05$). Post hoc testing using the Tukey-HSD test showed that "attack on staff" was associated with significantly greater scores on Personal Accomplishment than "self-harm".

There was no significant association between the type of vignette and Emotional Exhaustion scores ($F = 0.61$, d.f. = 2,72, n.s.).

3.5 Hypothesis 3

That the type and degree of burnout experienced by staff will be associated with their emotional responses to incidents of violence.

Analysis of variance was used to determine the association between levels of burnout in staff and their responses to the vignettes on the ERQ. Staff were categorised as "low", "medium" or "high" on each of the MBI subscales. These categorisations were determined from the MBI manual (mental health sample).

Table 3.9 – Categorisation of MBI scores (from Maslach Burnout Inventory Manual, Maslach et al, 1996)

<i>Subscale</i>	<i>Low</i>	<i>Medium</i>	<i>High</i>
Emotional Exhaustion	0 – 13	14 – 20	21+
Depersonalisation	0 – 4	5 – 7	8+
Personal Accomplishment	34+	33 – 29	0 - 28

For the “self-harm” vignette, there was no association between the degree of burnout on any of the MBI subscales and staff’s responses on the ERQ. However, for the “attack on staff” vignette, there was a significant association between the degree of Emotional Exhaustion and Negative Affect ($F = 5.81$, d.f. = 2,22, $p < 0.05$). Post hoc testing using the Tukey-HSD test showed that staff with “high” levels of Emotional Exhaustion had significantly greater Negative Affect than staff with “low” levels of Emotional Exhaustion.

In the case of the “attack on patient” vignette, there was a significant association between the degree of Emotional Exhaustion and Negative Affect ($F = 7.69$, d.f. = 2,21, $p < 0.05$). Post hoc testing using the Tukey-HSD test showed that staff with “high” levels of Emotional Exhaustion had significantly greater Negative Affect than staff with “low” levels of Emotional Exhaustion.

With the “attack on patient” vignette, there was also a significant association between the degree of Depersonalisation and Negative Affect ($F = 11.82$, d.f. = 2,21, $p < 0.001$). Post hoc testing using the Tukey-HSD test showed that staff with “high” levels of Depersonalisation had significantly greater scores on the ERQ than staff with “low” and “medium” levels of Depersonalisation.

3.6 Hypothesis 4

That demographic characteristics of staff will be associated with their emotional responses to incidents of violence and with the type and degree of burnout.

The relationships between the staff characteristics and their MBI and ERQ responses are discussed, by vignette type, below. In the cases of full-time

vs. part-time, bank vs. permanent and days vs. nights, there were insufficient numbers of part-time, bank and night staff for statistical power and so comparisons between these groups were not made.

3.6.1 Age

There were no significant relationships between age of staff and their responses on the MBI subscales and ERQ factors, in response to any of the three vignettes (see Appendix 8).

3.6.2 Gender

There were no significant relationships between gender of staff and their responses on the MBI subscales and ERQ factors, in response to the vignette describing a scene of self-harm or to the vignette describing a scene where a woman patient had attacked a staff member (see Appendix 8).

Table 3.10– Gender differences in scores on MBI subscales and ERQ factors (“attack on patient” vignette)

<i>Subscale/factor</i>	<i>t</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.89	22	n.s.
Depersonalisation	2.38	22	0.05
Personal Accomplishment	0.57	22	n.s.
Negative Affect	-0.70	22	n.s.
Positive Affect	-0.20	22	n.s.

However, t-test showed that on the MBI subscale of Depersonalisation, male staff had significantly higher scores than female staff in response to the vignette describing a scene in which a woman had attacked another women (Table 3.10).

3.6.3 Years at Ashworth

The associations between length of service and scores on the MBI subscales and ERQ factors were examined using Pearson's correlations. When a large number of (relatively weak) analyses are applied to a single data set, there is an increasing probability that associations will be significant "by chance" (capitalising on chance). For this reason the more stringent significance level of $p < 0.01$ is used in this and the following section. Trends towards significance, where $p < 0.05$, are identified.

For all vignettes taken together, there were highly significant correlations between the length of time staff had worked at Ashworth and their levels of Emotional Exhaustion and Negative Affect (Table 3.11).

Table 3.11 – Correlations between MBI and ERQ scores and years served at Ashworth Hospital (all vignettes)

<i>Subscale/factor</i>	<i>r</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.38	73	0.001
Depersonalisation	0.20	73	n.s.
Personal Accomplishment	0.44	73	n.s.
Negative Affect	0.36	73	0.001
Positive Affect	0.74	73	n.s.

There were no significant relationships between the number of years that staff had worked at Ashworth and their responses on the MBI subscales and ERQ factors, in response to the vignette describing a scene of self-harm (see Appendix 8).

However, there was a significant correlation between the length of time staff had worked at Ashworth and their Negative Affect: the longer that staff had worked at Ashworth, the greater their degree of Negative Affect in response to a situation involving an assault by a woman patient on a staff member (Table 3.12).

Table 3.12 – Correlations between MBI and ERQ scores and years served at Ashworth Hospital (“attack on staff” vignette)

<i>Subscale/factor</i>	<i>r</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.33	23	n.s.
Depersonalisation	0.06	23	n.s.
Personal Accomplishment	0.19	23	n.s.
Negative Affect	0.48	23	0.05
Positive Affect	0.35	23	n.s.

There were also significant associations between the degrees of Depersonalisation and Emotional Exhaustion on the MBI, and Negative Affect on the ERQ and years of working at Ashworth when responding to the vignette describing the attack by a woman patient on another patient (Table 3.13).

Table 3.13 – Correlations between MBI and ERQ scores and years served at Ashworth Hospital (“attack on patient” vignette)

<i>Subscale/factor</i>	<i>r</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.53	22	0.001
Depersonalisation	0.47	22	0.05
Personal Accomplishment	0.22	22	n.s.
Negative Affect	0.42	22	0.05
Positive Affect	-0.19	22	n.s.

3.6.4 Years of working with the women

For all vignettes taken together, there was a significant correlation between the length of time staff had worked in the Women’s Services at Ashworth and their levels of Negative Affect. There was a trend towards increased Emotional Exhaustion but this was non-significant (Table 3.14).

Table 3.14 – Correlations between MBI and ERQ scores and years served in the Women's Services at Ashworth Hospital (all vignettes)

<i>Subscale/factor</i>	<i>r</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.27	73	0.05
Depersonalisation	0.10	73	n.s.
Personal Accomplishment	-0.13	73	n.s.
Negative Affect	0.36	73	0.01
Positive Affect	-0.16	73	n.s.

There was a significant negative association between the degree of Personal Accomplishment experienced in response to the self-harm vignette and the length of time that staff had worked with the women patients. This association showed that the longer that staff had worked with the women patients at Ashworth, the less sense of Personal Accomplishment they felt (Table 3.15).

Table 3.15 – Correlations between MBI and ERQ scores and years working with the women patients at Ashworth Hospital ("self harm" vignette)

<i>Subscale/factor</i>	<i>r</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.24	24	n.s.
Depersonalisation	-0.07	24	n.s.
Personal Accomplishment	-0.41	24	0.05
Negative Affect	0.12	24	n.s.
Positive Affect	-0.14	24	n.s.

There was a significant correlation between the length of time staff had worked with the women patients at Ashworth and their Negative Affect. The longer that staff had worked with the women, the greater their degree of Negative Affect in response to a situation involving an assault by a woman patient on a staff member (Table 3.16).

Table 3.16 – Correlations between MBI and ERQ scores and years working with the women patients at Ashworth Hospital (“attack on staff” vignette)

<i>Subscale/factor</i>	<i>r</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.24	23	n.s.
Depersonalisation	-0.07	23	n.s.
Personal Accomplishment	-0.08	23	n.s.
Negative Affect	0.55	23	0.01
Positive Affect	-0.17	23	n.s.

There was also a significant correlation between the degree of Negative Affect and the number of years staff had worked with the women patients with respect to their response to the “attack on patient” vignette (Table 3.17).

Table 3.17 – Correlations between MBI and ERQ scores and years working with the women patients at Ashworth Hospital (“attack on patient” vignette).

<i>Subscale/factor</i>	<i>r</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.36	22	n.s.
Depersonalisation	0.26	22	n.s.
Personal Accomplishment	0.12	22	n.s.
Negative Affect	0.45	22	0.05
Positive Affect	-0.14	22	n.s.

3.6.5 Grade

There were no significant relationships between staff's grade and their responses on the MBI subscales and ERQ factors, in response to the vignette describing a scene of self-harm or to the vignette describing a scene where a woman patient had attacked a staff member (see Appendix 8).

However, ANOVA showed a significant difference in Negative Affect scores in response to the “attack on a patient” vignette. Post hoc analysis using

the Tukey-HSD test showed that this is accounted for by significantly greater Negative Affect in staff nurses (D and E grades) than in nursing assistants (A and B) or nurse managers (H and I grades) in response to this situation (Table 3.18).

Table 3.18 – Differences between grades of staff in MBI and ERQ scores (“attack on patient” vignette).

<i>Subscale/factor</i>	<i>F</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	2.51	3,20	n.s.
Depersonalisation	0.80	3,20	n.s.
Personal Accomplishment	1.30	3,20	n.s.
Negative Affect	6.03	3,20	0.01
Positive Affect	2.72	3,20	n.s.

3.6.6 Ward

There were no significant relationships between the ward on which staff worked and their responses on the MBI subscales and ERQ factors, in response to any of the three vignettes (see Appendix 8).

Chapter 4 – Discussion

4.1 Introduction

This study found some evidence for all four hypotheses. The results showed that the type of violent situation depicted in a vignette was associated with different emotional responses and different degrees of burnout in nursing staff. Burnout in staff was associated with different emotional responses to violence. Demographic characteristics were also associated with emotional responses and burnout in relation to the three violent situations.

The discussion is structured as follows. First, the validity of the concept of burnout as a response to situational factors (as represented by a vignette scenario), and the use of the MBI in such a way, is discussed. This establishes one of the premises for the second part: the discussion of the results in relation to each of the hypotheses. Third, broader contextual issues are considered. That is, two major stressors: role conflict and the emotional stress of self-harm, and some of the factors by which these stressors are mediated, are elaborated. In particular, internal coping mechanisms (both unconscious defences and conscious cognitive coping strategies) and external, organisational factors (which may counteract or exacerbate stress) are discussed. Fourth, there is consideration of methodological issues. Finally, the implications for service delivery are discussed and further research areas are outlined.

4.2 Validity of using the MBI with specific reference to vignette scenarios

Examination of the typical emotional responses to violence (e.g. Lanza, 1983) suggested that there were similarities between these and aspects of burnout. It was therefore hypothesised that not only might levels of burnout differentiate emotional responses to violent women (hypothesis 3), but that burnout might itself be reactive to depictions of violence (hypothesis 2). The notion of burnout as an acute response is unusual. The literature tends to assume it is a phenomenon derived from chronic stress. However, the developmental course of burnout, its establishment and maintenance, has not been investigated through research and this assumption remains unproven.

This research found that the three vignettes were associated with differences on measures of Depersonalisation and Personal Accomplishment. This suggests that these subscales may indeed tap a more immediate, reactive response than the MBI is usually considered to measure. It lends support to the use of the MBI as a measure which is sensitive to more immediate, reactive effects of stimuli than is usually the case.

It is possible that these findings were significant only because a proportion of all analyses (estimated at 5%, Statsoft, 1991), even of random variables, will be statistically significant at the level of $p < 0.05$ simply "by chance". Of the nine analyses performed (3 vignettes \times 3 MBI subscales), two were significant (one at $p < 0.05$ and the other at $p < 0.01$). This is a far greater proportion than would be expected by chance.

Although further research is needed to examine temporal aspects of burnout and the sensitivity of the MBI to situational factors (in this case depicted in vignettes) there is support for the idea that the MBI may be

responsive to such situational factors as well as measuring more enduring characteristics. The rest of the discussion considers burnout as a relatively immediate reaction to situations of violence, as well as a more enduring response to enduring stress. The results are now be discussed in this context. The relationship between the MBI and ERQ is further discussed later.

4.3 Hypotheses 1 and 2

That violence directed at different parties (self-harm, aggression by a patient towards another patient, and towards a member of staff) will be associated with different emotional responses, and with different types and degrees of burnout in nursing staff.

The study shows clearly that different types of violence, directed at different parties, brought about different emotional responses in staff. The “attack on staff” vignette elicited greater Negative Affect than “self-harm” and than “attack on patient”. Personal Accomplishment was greater in the case of “attack on staff” than “self-harm” and there was more Depersonalisation in response to “attack on patient” than “attack on staff”.

It is perhaps not surprising that an assault on a staff member by a patient was associated with the most negative affect in staff. Staff are likely to identify more strongly with other staff members than with patients. When the victim of violence is a staff member, their emotional response to the violence may be maximised and felt more personally and directly, than when the victim is another patient with whom the staff member will probably identify less. Some of the comments by staff indicate how salient and significant the experience of assault is for them. For example:

The worst thing is the fear of being attacked more than anything else. There's an edginess about it. Nothing would happen but you're still on edge...waiting for another attack.

Interestingly, although the "attack on staff" vignette elicited more negative feelings, it was also associated with a greater sense of Personal Accomplishment than the "self-harm" vignette. This finding will be considered below.

Personal Accomplishment involves "feelings of competence and personal achievement in one's work with people". An attack on a staff member may be a situation in which staff feel particularly *able* to respond well. The assailant will usually be secluded and "counselled". Staff may have a sense that they readily understand the feelings of their colleague who has been assaulted. They can empathise, sympathise, comfort and counsel from a basis of understanding. There are a number of practical actions that can be taken: physical attention to any injuries, taking the staff member to hospital, informing family and line management, completing incident reports and other paperwork etc. Role-conflict is minimal. Responses are likely to be congruent with staff's self-concept as helpful and altruistic people, their primary identification is with the victim, and it is clear who the victim is. Actions are clear, unambiguous and serve to comfort the victim and the other staff, by identification with the victim and through the development of a reassuring sense of competence.

The relatively low sense of Personal Accomplishment associated with the "self-harm" vignette may reflect the fact that dealing with self-harm is a much more confusing and complex situation for staff to cope with emotionally and practically than dealing with a patient's assault on another person. This was demonstrated repeatedly by the comments made by staff in the course of the study.

She was trying to cut her breast off. She was on special obs because she was a very bad cutter. I was sitting outside and she cut her arm and was scooping the sub-cutaneous fat out and eating it. She threw it at us. It was all over our clothes. I was giggly...not knowing what to do. It was a nervous reaction.

The stress? It's horrendous...the cutting...to watch and see what state they get into (nearly in tears). It must have an effect. There's so much anger and aggression towards you. They're fighting with each other and fighting with the staff. You have to use restraint [control techniques]. It must have an effect.

Inserting behind eyeballs.... I think it's pure devilment.

The worst thing is the self-harm. Their tendency to be aggressive towards others is easier to deal with than self-harm.

You experience the psychological gambit of emotions, working with self-harm.

In the case of an assault on another person, staff or patient, staff have relatively clear courses of action: management of the assailant, comfort and treatment of the victim. In the case of self-harm, where assailant and victim are one and the same, staff may feel more uncertain. They seem to experience ambivalent and contradictory emotional responses. Because the management of self-harm is deemed to be individually tailored, staff may be uncertain as to how best to respond. They do not know what is the best course of intervention to manage self-harm and thus may have the lowest sense of Personal Accomplishment in relation to this scenario.

The impression gained from the comments by staff is that self-harm elicits powerful feelings which are in themselves disturbing. Anger, revulsion and fear are natural responses to some of the extreme forms of self-harm which the staff are exposed to. It is interesting, therefore, that the "self-harm" vignette did not elicit high levels of Negative Affect on the ERQ in comparison with the other two vignettes.

There was no significant difference in Personal Accomplishment found in responses to the "attack on staff" and "attack on patient" vignettes. An attack on a patient by another patient would probably elicit feelings akin to but perhaps less strong than those elicited by an assault on a staff member. Identification with the victim is likely to be less but the responses and actions to manage the situation will be similar and congruent with the self-concept of nurses as caring helpers.

The degree of Depersonalisation that staff reported in response to the "attack on staff" vignette, was significantly less than that elicited by the "attack on patient". Depersonalisation is the degree of "unfeeling and impersonal response" towards the patients. This is understood as the withdrawal from the emotionally demanding, draining aspects of the job. A plausible hypothesis would be that staff will be less detached and emotionally withdrawn from a situation involving an assault on one of their colleagues than from a patient assault on a patient. Their strong negative feelings and their identification with their colleague is likely to *involve* them with the situation rather than result in Depersonalisation. In contrast, there may be a tendency to withdraw emotionally from the patients when one has assaulted another, with a feeling of helplessness and the sense that the assault constitutes natural justice.

Your feelings depend. You feel guilty because you can't do anything about it, pity because no matter what you do, they have to self-harm.....with the first one of the evening. By the eighth you're traumatised and your feelings have become blunted. It depends on the patient. If they're in distress, you feel more empathy, sympathy. If they're a nuisance you feel more angry....sympathy but more anger too. Non-judgmental. I can't do that.

You don't react...not hard but emotionless... you feel helplessness. There are no answers. I feel pity for the women but I feel I shouldn't.

Your guard's up all the time...your environmental awareness. You never really settle. You expect the worst. You get cynical and bitter.. hardened to events that happen outside. You get a weird sense of humour and it affects your relationships outside.

The crude comparison of the MBI scores in this study with those from other studies and with published norms (Maslach *et al*, 1996) indicated that Depersonalisation in this group was generally higher than the levels in the comparison studies. Whilst this "eyeball" comparison has no statistical validity, it may suggest that staff working in the Women's Services at Ashworth Hospital have chronically high levels of Depersonalisation except when a patient assaults a member of staff. When this happens, staff become more involved and engaged with managing the situation for the reasons described above and Depersonalisation is temporarily reduced.

4.4 Hypothesis 3

That the type and degree of burnout will experienced by staff will be associated with their emotional responses to incidents of violence.

In the cases of the "attack on staff" and "attack on patient" vignettes, higher Emotional Exhaustion in staff was associated with higher Negative Affect. In the case of the "attack on patient" vignette, high levels of Depersonalisation were also associated with high Negative Affect. The finding of greater Negative Affect when staff were emotionally exhausted is not surprising. It would be expected that an emotionally exhausted nurse will be primed to react with more negative feelings in response to any stressor than a less emotionally exhausted nurse. However, the association is not necessarily causal. Emotional Exhaustion (see Appendix 1) and Negative Affect (see Appendix 6) have some elements in common, are significantly correlated and may be tapping into the same underlying concept.

Interestingly, in the case of an attack by a patient on another patient, staff with greater levels of Depersonalisation showed more Negative Affect. This suggests that Depersonalisation is not functioning as a psychological defence in the same way as avoidance and denial do (Hunter, 1989) and is not effectively ameliorating the emotional impact of violence. Possibly the experience of Depersonalisation is in itself unpleasant and evokes negative feelings. However, the items comprising the subscale of Depersonalisation (see Appendix 1) do not correspond to the items in the factor of Negative Affect (Appendix 6) and were not found to correlate with Negative Affect. This suggests that Depersonalisation and Negative Affect are not simply measuring the same underlying construct. The relationship between the MBI and ERQ is further discussed later.

4.5 Hypothesis 4

That demographic characteristics of staff will be associated with their emotional responses to incidents of violence and with the type and degree of burnout.

4.5.1 Age and grade of staff

The large-scale study of stress in a number of NHS Trusts, across a range of disciplines, by Borrill *et al* (1996), found that younger and older staff had better mental health than those aged between 26 and 45. No such relationships between age and emotional responses to violence or burnout were found in this study. Likewise, a study in an equivalent setting to Ashworth Hospital (Jones *et al*, 1987, at Rampton Hospital) found no relationship between grade and psychological distress in psychiatric nursing staff.

However, interestingly, this study found a curvilinear relationship between the ERQ factor of Negative Affect and grade similar to that found by Borrill

et al (1996). Staff nurses experienced more Negative Affect than nursing assistants and nursing managers in response to an attack by one patient on another. This finding was not replicated in response to any of the other vignettes.

Staff nurses are the most junior and the grade most commonly left in charge of the ward on each shift. As such they are present on the wards for the entire shift, subjected to the routine experience of chronic violence and are responsible for managing this day-to-day. Nursing assistants are present on the wards to the same extent as staff nurses and are as likely to be involved in receiving and managing violence. However, they are not responsible for the outcomes on the wards and are entitled to look to the staff nurse for leadership. Their low level of responsibility may protect them from the negative feelings which staff nurses experience.

Nurse managers, whilst ultimately retaining responsibility for the running of the ward including patient and staff safety, are not present on the ward for prolonged periods of time and are not subjected to the practical experience of violence on such a frequent basis as the ward based staff. This may protect them from the development of negative feelings as felt by the staff nurses.

Interestingly, previous work has shown that stress levels are higher in more senior nursing staff with management responsibilities (e.g. Tyler and Cushway, 1992, Nolan *et al*, 1995). The nurses in these studies identified organisational factors as their main stressors in their work. It may have been that violence was a low frequency event for the staff in these two studies. Organisational factors may be more stressful for managers who are called upon to manage and mediate such factors and may feel themselves to be under pressure from their ward-based staff and from senior management. In relation to *patient* stressors such as violence by patients, nurses in management roles would not necessarily experience greater stress than less senior staff.

If, in the Women's Services, patient violence is the main stressor, it might be expected that those who are most directly exposed to violence (ward-based staff) would be more stressed than nurse managers. In addition, those both exposed to violence and responsible for its management would be likely to feel the most pressure from the situation. This would be the staff nurse grade.

Overall, it seems that level of responsibility and length of exposure to violence on a day-to-day basis (maximised in staff nurses) is associated with the degree of negative feeling in staff. It is not clear why this effect is shown only in response to the vignette which describes an assault by a patient on another patient.

4.5.2 Ward

There were no significant relationships between the ward on which staff worked and their scores on the MBI or ERQ factors. The validity of categorising staff by ward is questionable in any case. The staffing shortages in the Women's Services mean that staff are frequently moved from ward to ward and may have limited allegiance to or identification with any particular ward. Also the staff that do remain in the Women's Services tend to be assigned to each of the wards at some point in their careers. Because of this, the categorisation of staff by ward is probably not meaningful. Their responses to the MBI and ERQ are likely to have been determined by their experiences across all women's wards and therefore "ward" is not a discriminating variable.

4.5.3 Gender

In the present study, no gender differences were identified in terms of the responses to violent situations with one exception: male staff were found to experience greater degrees of Depersonalisation than their female

counterparts in response to “attack on patient” vignette. Interestingly, whilst the male staff had worked longer at Ashworth Hospital than female staff, they had worked for fewer years than their female colleagues with the women patients. It seems that relatively short periods of working with the women patients lead to Depersonalisation in the male staff, in comparison with female staff. Alternatively, possibly female staff (who have on average worked with the women longer than the men) may have developed better coping strategies that protect from Depersonalisation.

Most of the previous research has found no relationship between gender and burnout (e.g. Kandolin, 1993, Borrill *et al*, 1996). However a few studies have also found higher Depersonalisation scores in men than women. Maslach and Jackson (1981) surveyed 1025 health service workers from a range of disciplines and found that men had higher levels of Depersonalisation (and greater Personal Accomplishment) than women staff. Le Croy and Rank (1987) found higher levels of Depersonalisation in male social workers than females. Unfortunately, the studies discussed earlier which administered the MBI to *psychiatric nurses* (Dolan, 1987, Sullivan, 1993, and Fagin *et al*, 1996) do not report gender comparisons on the MBI so it is impossible to say if the greater Depersonalisation in male staff found here is unusual in this staff group.

4.5.3.1 Identification

Possibly women are less prone than men to respond to violence by the women patients with Depersonalisation because they are more likely than male staff to identify with the female patients. It seems intrinsic to the concept of Depersonalisation that it would involve a degree of psychological distancing or “cutting off” from the patients. Identification may be more likely between members of the same gender where similarities are more readily perceived and felt. Identification is likely to offset the distancing which is part of Depersonalisation, and so women are perhaps less likely to feel depersonalised with this female patient group.

It is possible to speculate further and suggest that women staff may be less prone to the broad societal view that anger and violence in women is unnatural. As women themselves, they may recognise their own aggression and therefore feel less disturbed by the concept that women can have and express such impulses and therefore less likely to resort to Depersonalisation as a defence against that disturbance. This is similar to the notion expressed by Hunter (1989) of "positive anger" felt in the counter-transference by staff. He suggested that staff may cope with violence more adaptively if they can recognise patient's aggression as existing in themselves and therefore be less prone to blame and hatred of the patient. Possibly female staff, through gender-identification, are more likely to feel positive anger.

On the other hand, it could also be argued that female staff who *do* hold the view that anger is unnatural in women would be particularly disturbed by its expression by the female patients. They might therefore be *more* likely to respond with Depersonalisation than their male colleagues in order to avoid the cognitive and emotional dissonance that violence by the women patients would engender.

In addition, it may be the case that female staff are able to develop a different and closer kind of relationship with the women patients than their male colleagues. Possibly patients may tend to approach women staff for support, in preference to their male colleagues. Also there are a number of personal, physical care tasks that male staff are precluded from undertaking with the women patients. If such a "special" relationship is more likely to exist between women patients and staff, it may serve to protect the female staff from Depersonalisation, because they feel closer to the patients.

4.5.3.2 Gender differences in coping style

It may be that the greater Depersonalisation found in male staff is not specific to their response to the female patients but because men are, in general, more prone to Depersonalisation than women. The finding of greater Depersonalisation in male staff (Maslach and Jackson, 1981, Le Croy and Rank, 1993) may support this. The staff in these studies worked with *mixed* gender client groups.

Possibly this is due to socialised differences in the ways men and women conceal and defend against their emotions. Depersonalisation may be the end effect of coping mechanisms or ego defences which distance people from their painful and unacceptable responses to violence by the women patients. Men may be more inclined to use distancing mechanisms resulting in Depersonalisation. It is more acceptable in western society for women to be overtly emotional. In addition to their more ready identification and empathy with the women, they may have less social pressure to conceal and distance themselves from their responses to the violence. They may find alternative means of managing these difficult feelings and consequently experience less Depersonalisation.

The work by Hunter (1989) lends some support to this hypothesis. He found that women staff generated and utilised more adaptive coping strategies (e.g. talking with friends about the violent situations) than did men.

Why is the gender difference in the degree of Depersonalisation demonstrated in the case of a patient assault on another patient and not in the other two vignette scenarios? As discussed above, a patient attack on another patient resulted in greater Depersonalisation across all staff, than an attack on a member of staff. It may be that, because men are more likely than women to respond with Depersonalisation, men will be most likely to respond to *any* emotional situation with Depersonalisation. In a situation in

which a staff member is the victim, the tendency to Depersonalisation is reduced by the identification with the assaulted staff, and Depersonalisation is relatively greater when staff are not a target of the violent act.

However, this explanation would predict that Depersonalisation found in male staff would also be greater in response to situations of self-harm, and this was not demonstrated.

4.5.3.3 Likelihood of being assaulted

An alternative explanation for the gender difference in Depersonalisation is suggested by the work of Carmel and Hunter (1989), Ryan and Poster (1989) and Kandolin (1993). They all found that male staff are more likely than female staff to be injured. These injuries tend to be sustained when male staff physically intervene to control a violent incident rather than by direct patient assault on the staff. Baxter *et al* (1992) however, did not find that male staff were more likely to be assaulted than female staff. Also, although Kandolin (1993) found that male nurses were more likely too be injured than female nurses, she found that experience of physical assault was more predictive of burnout in female than male staff. It seems that the relationship between assault, injury and gender is complex and not clearly understood.

4.5.4 Length of service

The time spent working at Ashworth Hospital and in the Women's Services were found to have a significant negative association with staff's emotional responses and levels of burnout. When all vignettes were taken together, length of Service at Ashworth was significantly associated with Emotional and Negative Affect. There was a significant positive correlation between length of service with the women patients and Negative Affect and a non-significant trend towards a correlation with Emotional Exhaustion. In the

case of an attack by a patient on a member of staff, the time spent at Ashworth and in the Women's Services were both related to increased Negative Affect, with only the latter reaching significance at the 1% level. When a patient assaulted a patient, time at Ashworth Hospital was associated with significantly greater Emotional Exhaustion and with a trend towards greater Negative Affect and Depersonalisation. Time spent working in the Women's Services was associated with a non-significant trend towards greater Negative Affect. In the case of self-harm, there was a non-significant trend towards staff who had worked for longer in the Women's Services tending to feel *less* Personal Accomplishment. It is of note that this trend was absent when all vignettes were taken together. This lends weak support for the idea that self-harm may have a particular effect on staff in relation to their sense of competence.

Overall, whilst a number of the findings are weak indicators of trends, there are also significant associations between time spent working at Ashworth and in the Women's Services and increased negative psychological states in staff. These findings are of considerable interest as they appear to lie in the opposite direction from other research. Some studies have shown no relationship between years of experience and burnout. Raquepaw and Miller (1989) administered a postal questionnaire to 68 psychotherapists and found that years of experience were not related to their levels of burnout. It is not clear from the article how "years of experience" was defined. In a study with a more relevant staff group sample, Thornton (1992) surveyed 234 psychiatrists, psychologists, psychiatric nurses (N = 47), social workers, rehabilitation counsellors and other mental health workers in a large in and out-patient psychiatric hospital. She found that "length of time in one's profession" did not distinguish levels of burnout on the MBI. In contrast, Ackerley *et al* (1988) surveyed 562 doctoral-level psychologists working in private and public practise in the USA. "Number of years in direct service" was negatively correlated with Emotional Exhaustion and Depersonalisation. They speculate that experienced

clinicians learn to conserve their emotional energy and view their clients more positively.

Direct comparisons between these studies and the present research are flawed. As noted, the staff groups are not the same. The work experience of an American psychologist or psychotherapist, possibly in private practice, is likely to be considerably different from that of a forensic nurse in a maximum security psychiatric setting. Thornton's (1992) research includes a closer subject group, psychiatric nurses, but their proportion of the whole sample was very small.

In addition, it is not clear if "years of experience" and "length of time in one's profession" measured in these studies is the same construct as "years at Ashworth" and "years working with the women" used in this study. This study did not determine the total time staff had been qualified, for example. It is possible that staff may have acquired a great deal of experience *elsewhere* and worked only a short time in the Women's Services or at Ashworth. In comparing "length of service" with "years of experience", we may not be comparing like with like. In fact it is likely that the length of time that staff have worked at Ashworth is closely related to their total experience in the profession. Although there is considerable staff movement within the hospital, staff retention is high. This may be due to the considerably enhanced pay in high security institutions. Nursing staff tend to train and subsequently work at the hospital and live in the local town. Ashworth Hospital is the main employer of the local population. Staff will often work their whole careers at Ashworth Hospital. It is therefore likely that years of service at Ashworth is sufficiently commensurate with years of experience to allow at least tentative comparisons with the other research.

The complex models of stress and burnout discussed in Chapter 1 would suggest that there may be interactions between the nature of the stressors (the different violent situations) and moderating variables. These would include individual factors (personality style, attributions and expectations of

the patients and work setting) and organisational factors such as clarity of the management of assault and self-harm etc.

A plausible hypothesis similar to that suggested by Ackerley *et al* (1988), would be that with experience comes greater knowledge and practice at managing difficult situations, more robust support networks and mechanisms, and greater emotional maturity. All of these factors would serve to ameliorate the stressors in the work environment, and counteract negative emotional responses and burnout.

Staff may arrive at Ashworth with optimism and a sense of purpose and challenge. One might expect that these staff would experience a period of disillusionment, a sense of being “deskilled”, as the realities of working in a chronically violent and stressful environment become apparent. One might hope that this would be offset after a period of settling in, desensitisation and learning in which staff lose their sense of shock, develop supportive working relationships, realistic expectations and learn procedures and skills for dealing with violence, both practically and emotionally.

These hypotheses would predict a curvilinear relationship between years of working at Ashworth and/or in the Women’s Services and ERQ and MBI scores. Staff would score highly on Positive Affect and low on Negative Affect and the burnout subscales at the very beginning of their careers at Ashworth and with the women patients. This would be followed by raised Negative Affect, and increased scores on the MBI subscales until staff had developed the skills and experience to manage the violence and their feelings more effectively. At this point, with the increase in experience, Negative Affect and burnout would be expected to become lower. The results of Ackerley *et al* (1988) was consistent with this part of the proposed curvilinear relationship.

In the Women’s Services, this does not happen. Instead it seems that the optimism, job involvement and satisfaction which staff may bring with them

at the start is gradually eroded as they spend more time in the service. There is no increase in Personal Accomplishment suggesting that they do not develop an increased sense of competence and achievement in their work, with experience. Indeed, the only finding, albeit a weak association, in relation to Personal Accomplishment is that the longer the staff have worked with the women patients, the *less* their sense of Personal Accomplishment in relation to self-harm. No association between length of service and Personal Accomplishment is found when all vignettes are taken together. This adds support for the idea that *self-harm* may have a particular impact on staff's sense of competence and professional coping.

It appears that factors which might be expected to moderate burnout are ineffective. If an environment is unrelentingly aversive, coping strategies will eventually be overwhelmed. Staff come to feel that all attempts to cope, adapt or moderate their working environments are futile. Instead of increased Personal Accomplishment from increasing mastery, a state akin to "learned helplessness" sets in.

The reduction of Personal Accomplishment in the case of self-harm suggests that self-harm presents a particular challenge to staff that they feel ill equipped to meet and especially undermined by.

There is just one study which finds a similar converse relationship between burnout and experience. Interestingly, the setting for the study was a shelter for battered women. Epstein and Silvern (1990) found that the length of employment in this setting was positively correlated with Emotional Exhaustion, an identical finding to that of this study, and in contrast to the bulk of the literature. This raised the question of whether it is the effects of working with a group of very damaged and deprived *women* which is significantly causal of burnout. Unfortunately this study seems to confound seniority and length of service so that it is not possible to determine if "time served" or levels of responsibility are the key factors connected with increased Emotional Exhaustion. Also, they do not present

their data or statistics making it impossible to decide if the conclusions they draw are warranted. Finally the gender mix of the staff group is not recorded and gender issues, either with respect to staff or clients are not considered.

The implications of these findings are serious and gloomy. They imply that the experience of working with the women and with chronic violence may be an unrelenting drain. It appears that the wearing effects of chronic violence are not offset by the development of competencies to manage the job more effectively or the development of better inner coping mechanisms.

From the informal comments nursing staff made, it seems that they believe that the procedures, guidelines and skills for working with violence in ways that should contain the violence better are absent. Or they do not believe or experience these methods to work. In fact, in the case of managing incidents of self-harm, staff may feel *decreasingly* competent over time, as though ways of managing self-harm have failed and there are no others to try. This notion is supported by some of the comments made by staff.

You're looking for answers and you haven't got answers. It's damage limitation. You feel you're keeping the lid on things.

The approach is to seclude them for self-harm and I felt very confused by that...it must be right although it felt wrong...

Sometimes the management techniques make it worse. Putting patients in seclusion makes them worse. If they are violent, you put them in seclusion and they're violent to themselves.

Further research is obviously required to explore the relative contributions of different factors such as client gender, deprivation and violence to burnout.

A number of issues raised so far will now be further considered within a broader context.

4.6 Role confusion and conflict

In our society, nurses tend to be perceived as all-good “angels” working altruistically because of a vocational calling. In general, society and patients are appreciative of nurses. They support them in pay disputes and bestow personal gifts in hospital. Nurses deal daily with illness, death, pain and fear. They are expected to cope with these highly charged feelings and situations effortlessly as part of their professional role. They are also expected to solve problems where there are rarely “right” courses of action or answers.

Psychiatric nurses occupy a rather different place in the public eye. They look after people with whom the public have little identification or empathy. Generally psychiatric patients are misunderstood and feared. Psychiatric nurses may be admired but they are probably less loved than their general nurse counterparts.

Psychiatric nursing is inherently different from general nursing with a more complex range of roles. The job of the psychiatric nurse was historically one of custodian in the large Victorian asylums. Patients were seen as incurable, irrational and in need of regulation and control. In the 1950s, with the advent of psychotropic medication, staff were able to develop more optimistic, treatment-orientated roles in which nurses could be proactive and foster improvements in the patients through social stimulation and the development of “caring” relationships. This, in turn, has led to the development of multiple roles within psychiatric nursing: psychotherapeutic and sociotherapeutic, behavioural, physical health care, administrative and

sometimes custodial. Whilst this broadening of roles offers opportunities for personal and professional development, it may have negative consequences too.

Handy (1990) offers a socio-political analysis of stress in ward-based and community mental health nurses. She points out that psychiatry has a dual role in helping distressed people and in undertaking the social function of controlling patients' socially problematic behaviour. She argues that the role conflict inherent in this is a major source of stress for staff.

In the case of nurses working in secure settings, the conflict is likely to be even more extreme. It is intrinsic to the task of forensic psychiatry that staff are having to balance their duty of care to the patient against the requirement to protect the public. In the case of forensic care, the stakes are often especially high as many of the patients have committed serious offences and present a very real danger to the public.

Violence in the ward setting is likely to effectively underline the nature of this role conflict. Each violent episode reminds staff of their custodial role and raises the conflict and cognitive dissonance engendered by the unacceptable event of violence perpetrated by women.

Role conflict appears to have a direct effect on staff's psychological state. Firth, McKeown, McIntee and Britton (1987) showed that role ambiguity for longstay mental health nurses correlated positively with Emotional Exhaustion and Depersonalisation and negatively with Personal Accomplishment.

Further conflict exists where staff are confronted by challenges to their self-view as professional, caring people. It is not only the public and society which idealises nurses. "Professionalism" tends to be understood by nurses themselves as encompassing only a positive or neutral emotional stance. There is no room for negative, hateful feelings towards patients.

Looking after patients who may have committed repulsive acts and may continue to be violent to themselves and others is likely to engender strong negative feelings in staff. Chronic violence by patients will constantly challenge the empathic, non-judgemental stance of nursing staff. This is dissonant with their role identities and this in itself can contribute to stress and burnout. It generates a highly emotional climate in which role conflict will be repeatedly emphasised.

Where nurses behave in ways which are congruent with public (and their own) expectations of being self-sacrificing, always understanding and tolerant, they receive public admiration and support. Any breach of this untenable stance results in disappointment and anger both from the public, employers and colleagues, and within themselves.

An anecdote will illustrate how the organisational and professional structures contribute to role conflict and confusion for nurses at Ashworth Hospital. There is mandatory training for nurses in techniques to deal with violence. These techniques are known as C & R, standing for "control and restraint". Recently, it has been deemed that C & R is actually "care and responsibility". The training and techniques are unchanged but nurses are given the covert message that their role in physically managing violence is unacceptable.

The nursing staff in the Women's Services live with constant role conflict between the real and enormous emotional demands of their work, their human, "ordinary" responses to it, and public, organisational and their own unrealistic expectations of their behaviour.

4.7 Self-harm

One of the most striking findings of this study is that staff feel *decreasingly* competent over time to manage self-harm. The comments of staff indicate particular confusion and uncertainty about what to do when faced with chronic and severe self-harm.

To a large degree, Personal Accomplishment will depend on the degree of sense people are able to make of a situation, and the availability and effectiveness of interventions. One of the difficulties with self-harming behaviour is that there are multiple theories of its aetiology which generate different and sometimes contradictory treatment recommendations. This may confuse and make it harder for staff to make sense of the behaviour and develop coherent treatment plans.

As well as a lack of clarity about the practical management of self-harm, a common experience for staff working with people who self-harm is that the nature of their relationships with their patients is intense and ambivalent on both sides. This can be understood best within a psychodynamic theoretical framework. The self-harming person evokes powerful feelings of fear, anger and anxiety in their carers. Winnicott (1949) writes about "hate in the counter-transference", the therapist's response to the rejection by the patient of their care. These feelings are the result of projective identification of intolerable self-hatred and aggression from patient into carers. Staff may feel angry, sadistic and rejecting of the patient and, through these unconscious processes, are manoeuvred into re-enacting the abusive dynamics of the patient's childhood. All treatments can be readily sabotaged or tainted by the unconscious re-enactment of early pathological dynamics where the carer is manoeuvred into feeling (and often inadvertently being) abusive. Being the recipient of such projections is extremely emotionally wearing, made worse by the fact that staff are often quite unconscious of the dynamic processes in which they are involved.

Hunter (1989) and Conn and Lion (1983) make the case that similar dynamic processes exist where violence by patients against others is prevalent. The difference is that self-harm appears to reduce staff's sense of Personal Accomplishment. This does not occur in the case of assault by a patient on another person. A possible explanation for this lies in psychoanalytic theory. Most of the women who self-harm have a history of severe sexual abuse and power dynamics are central in their relationships with staff, as transferential parents. Self-harm may evoke in staff a similar feeling of helplessness and powerlessness that the self-harming women feels through the projection of these feelings by the patient and the identification by staff (projective identification). Self-harm is thereby functioning as a communication of distress and a way of punishing both the women patient and the staff who, in the transference, abused and neglected her, by the projection of a particular feeling, that of helplessness and powerlessness.

The therapeutic task with people who injure themselves is to resist the re-enactment of these dynamics. Staff must try to contain, rather than act-out, the negative feelings they experience towards the women. This is a complex and very difficult thing to do. It requires understanding of the dynamic processes which are being evoked, supervision by an outside party to achieve this, personal maturity and knowledge of technique.

Such training is not inherent in psychiatric nurse training. On the whole nursing staff will have a working knowledge of behavioural techniques and some counselling skills. Naturally, they will utilise these in trying to work with the women and with their violence. As discussed earlier, in cases of self-harm, behavioural methods are often not applicable where the injury is serious. When operant methods are used they are unlikely to be effective because self-harm appears to be such a complex, over-determined behaviour. The counselling relationship between nurses and patients is encouraged through the role of the "primary nurse". Counselling intensifies

the feelings between the staff member and the woman patient and potentially this is therapeutic. In practise however, almost inevitably, early abusive dynamics are re-created in the counselling relationship and intensified because of its intimacy. The early aggression and extreme emotional neediness of the very badly-hurt women patients becomes unmanageable in the (usually unsupervised and relatively unboundaried) counselling relationship.

In summary, there is a lack of clarity about the “right” theory and treatment for self-harm. The approaches that psychiatric nurses are most familiar with, behavioural methods and counselling, when practised in isolation rather than as part of a multi-disciplinary, multi-modal treatment “package”, are likely to exacerbate difficulties. This leaves staff feeling deskilled and at a loss. Transcending different schools of theory is the idea that self-harm is a means of effecting powerful emotional communication. The nurses are not sure how to receive the communication and how to reply. They are largely unaware of the dynamic processes of which they are part. These processes are often re-enactments of the abusive and neglectful formative relationships which the women patients have had. Consequently, the communications by the women are intense and ambivalent: needy and rejecting. These generate strong feelings of both love and hatred on both sides. Without a conscious understanding of what is happening, and supervision and support to recognise and contain these primitive feelings, staff continue to feel at a loss. Worse, through acting-out their negative feelings towards the patients, they may unconsciously perpetrate the abuse which the women were subject to. This is discussed further in the next section.

4.8 Coping

The factors, which may mediate between the stress of working in the Women's Services as a nurse and its emotional consequences, will be

considered in three sections: the cognitions and beliefs about violence and the work, ego-mechanisms of defence and the utilisation of external support.

Cognitive models of psychology place central importance on the role of beliefs and schemata in dealing with emotional events. Poster (1996) has examined the ideas and beliefs staff hold about violence in their work settings. Flannery *et al* (1991) considered the experience of assault in a large state hospital within a PTSD framework. Both consider that the ability to "make sense" of the violent act is a significant factor in determining emotional recovery. Poster (1996) also emphasises the importance of being able to predict violence and similarly Flannery *et al* (1991) emphasise the significance of regaining a sense of control. Lanza (1984, 1987) discusses the tendency of nurses to blame the victims of assault. She points out that this may have an adaptive function. If staff believe that the victim of assault has done something to cause the attack, they can have a corresponding sense that the staff member can take action to prevent assault in the future. This fosters an internal locus of control and may fortify staff to continue to work in settings where they and others are chronically assaulted.

As well as these conscious cognitive processes, a variety of unconscious, psychic defences (Vaillant, 1971) are used by staff to distance themselves from unbearable feelings generated by the work situation. Such mechanisms are appropriate and necessary for healthy functioning but can become fixed or distorted so that carers become hardened, cynical and removed from the patient, unable to respond therapeutically. The patient becomes blamed and hated, or ignored. The concept of Depersonalisation may be considered as a product of a number of ego-defence mechanisms such as denial, minimisation and projection, which are generally rigid and maladaptive.

“Splitting”, “projection”, and “projective identification” are very common defence mechanisms which are often seen in highly stressful settings and with people who have been abused. Unbearable negative feelings are “split off” by the person and located in another party who may then experience those feelings as their own. For example, an angry patient may project her anger into staff members or other patients so that others feel angry with that person. These defences can result in scapegoating by both patients and staff. Patients may pick on and sometimes assault weaker, scapegoated members of the wards. Sometimes, as pointed out by Conn and Lion (1983), Holden (1985) and Hunter (1989) staff may be unable to prevent themselves acting-out their aggression.

I was shocked by the nurses' cruelty. They put salt into the solution [used to clean self-inflicted wounds] and I was shocked that the woman had pain but she didn't feel it. And they were sadistically surprised that she didn't feel it [the stinging from salt].

Some of the emotion generated by patients may be displaced onto certain patients but it is often acted out in working relationships with colleagues (and others). Trygstad (1986) found that the most commonly cited source of stress in psychiatric nursing staff was unit staff relationships. This accounted for 33% of experienced stress. Specifically, the problems were of inadequate or ineffective communication amongst staff, in-fighting between individuals and groups in the unit. Cronin-Stubbs and Brophy (1985) found that psychiatric nurses experienced greater interpersonal involvement and more frequent conflict with patients, their families and colleagues than nurses in operating theatres, intensive care and other medical specialities.

Some of the staff's comments indicate their negative feelings about their colleagues. Of course these may arise from “realities” about their colleagues' performances. However, it is also likely that these realities are distorted by powerful dynamic processes in the service.

It's frustrating that we have people here [staff] who don't have a level of empathy.

The worst thing is the staff. Not all staff feels as they should feel. The woman don't cause the problem but the staff do. Some of them shouldn't be there. They've got no understanding.....education but nothing deeper. They don't value the woman because it's a patient.

Kwawer (1980) and Main (1957) write about another dynamic which can appear. Staff may idealise the patient, attribute all their problems to others and become caught up in being their rescuer or advocate without acknowledging the patient's autonomy or volition. Such dynamics often appear within a single staff team resulting in conflict and acrimony. Team conflict may also be an unconscious enactment of the patient's family dynamics.

Due to the role conflict mentioned earlier, nurses may be particularly unable to utilise a basic coping strategy; that of acknowledging their state of stress and seeking even low-key support. This "trained unwillingness" to admit to stress, can in itself contribute to the sources of pressure for nursing staff. Staff collude with the unrealistic roles expected of them and tend to ignore and deny them in an attempt to maintain their professional integrity. This leads to the development of rigid and maladaptive defences described above. In turn, these are likely to underpin negative affect and the development of burnout.

4.9 Organisational factors

It would create a false impression if the focus of this study implied that it is solely the experience of chronic violence which causes stress and burnout

in the staff working in the Women's Services at Ashworth Hospital. As discussed earlier, organisational factors are often cited as major stressors.

The National Health Service has undergone massive change in policy and practice over the last decade. This has resulted in numerous reorganisations which have led to pressures from job insecurity, changing roles and demands, and the need for ongoing training to keep up with a rapidly developing professional field.

There is always pressure on public sector spending and the rationing and distribution of what many would consider to be inadequate financial resources. It is often middle management and the "grass-roots" clinical staff who take the brunt of these pressures. There is a shortage in trained nursing personnel resulting in staffing shortages, higher workloads and pressure to do overtime and work longer hours. There may be an excessive use of unqualified and temporary staff. Shiftwork is inherently stressful as it undermines routines. Lack of financial resources often means poor physical working conditions.

Many nurses identify a major source of stress as arising from poor leadership and relationships with their managers. There have been changes in perceptions of the "right" management philosophies for the NHS and a rapid increase in numbers of clinical staff who are given managerial responsibilities often without training and supervision for this role change. Staff feel that they have little sense of the direction of change, that they are not consulted adequately, receive insufficient support and feedback on their performance, and have remote relationships with their managers. In turn, managers often feel deskilled and inadequate in carrying out their management roles.

Other organisational factors which are often cited as major sources of stress are rigid hierarchies and poor communications, conflicting priorities, too much work and poor career structures.

The study by Borrill *et al* (1996), reported earlier, found that seven work-related factors were strongly associated with individual mental health: work demands, role ambiguity, role conflict, social support, feedback, influence over decisions and professional compromise.

In considering the effects of violence on the staff working with the women patients at Ashworth, it is crucial to consider the organisational context of their work. Staff comments suggest they experience problems from organisational factors which interact with the difficulties arising from the chronic violence.

Management don't care about the women let alone the staff.

Managers aren't on the wards. They don't know what it's like.

There was management support from one woman manager but she was also struggling. For a long time I didn't want her to know I was struggling.

Other comments were made about the uncertain future of the Women's Services, that many of the women did not require maximum security and that eventually the service would be run down, with commensurate anxiety about job security and so on.

As discussed earlier, it is striking how the longer staff have worked at Ashworth Hospital and the longer they have worked with the women patients, the more negative and emotionally exhausted they feel, and in the case of self-harm, the less competent they feel. It is likely that organisational factors play a key role in this phenomenon; that it is the organisation's chronic failure to respond to the stress and distress nurses feel working in what they describe as an environment of constant crisis that adds to negative feelings and burnout in staff.

4.10 The context of Ashworth Hospital

The broader context of the Women's Services is significant in considering staff stress. During the time of this study, Ashworth Hospital was under a public inquiry and frequently in the national press. Coverage was rarely balanced and generally negative. Although the focus of the inquiry was not the Women's Services, such attention has a general wearing effect. Tarbuck (1996) describes how secure services are often under intense and enduring media scrutiny which in turn can negatively affect staff morale.

Psychiatry tends to be considered as having a lower status than other branches of medicine and, likewise, psychiatric nursing is often perceived as being of lesser worth than general nursing (Brooking, 1985). This in itself is likely to constitute a chronic stressor which undermines the self-esteem of psychiatric nurses. Brooking (1985) goes further in suggesting that the lower status of psychiatric nursing has meant that fewer effective leaders have been attracted into the profession. Consequently, psychiatric nursing has developed more slowly than other nursing branches, and psychiatric nurses tend to be caught between an archaic "doctors' handmaiden" role and the more contemporary, independent therapeutic roles and identities, free from medical domination. This is particularly true for forensic psychiatry where doctors retain responsibility for patients under the Mental Health Act and multi-disciplinary working is even less successfully developed than in other areas of psychiatry.

This increases the chance that nurses will be utilising the knowledge and training they have (for example, in behavioural techniques and counselling) without the benefit of a complex, multi-disciplinary formulation of the women patients. Their interventions are unlikely to be effective in isolation, and the failure to effect change is likely to exacerbate burnout.

Forensic psychiatric nurses at Ashworth are exposed to a process of devaluing by public perception, the media and inter-disciplinary dynamics. The Women's Services are considered the backwater within Ashworth. Staff in these wards are multiply condemned.

The women are the least valued part of the hospital. They're the lowest point in the health or the penal system.

Jones (1987) draws attention to two further stressors, which may be of particular relevance in psychiatric nursing in comparison with other branches of nursing. Complaints against nursing staff are possibly more common in psychiatry. Without commenting on whether this is justified, the possibility and reality of complaints that are often accompanied by media attention must affect the psychological health of psychiatric nursing staff. Staff in high security hospitals are particularly prone to these charges and they generally bring intense, intrusive and attacking media coverage. Taylor (1983) points out how the organisational dynamics mean that it is very often nursing staff who are scapegoated under such circumstances. Managers may distance themselves from the ward level, proclaim moral outrage and locate the cause of the problem as lying with the individual nurse, rather than attempting to understand the systemic pressures that may have caused a nurse to behave in such a way.

The increasing empowerment of patients has meant that nursing staff are more and more often threatened by litigation for malpractice. Again, without commenting on the rights and wrongs of this, it is likely that there are several negative effects of this trend. Staff may increasingly practice defensively, avoiding rather than engaging with patients, especially "difficult" patients who may be likely to complain. Staff tend to follow rules and procedures without thought or flexibility. This is likely to undermine the therapeutic relationships between nurses and patients and generate further role conflict and confusion, and reduce job satisfaction.

Again this trend is especially evident in forensic psychiatry where almost all patients have regular contact with their solicitors because of their offence histories and because of the ongoing judicial processes connected with the administration of the Mental Health Act under which they are held. The culture is quasi-judicial and complaints and litigation may be more likely to be considered early in any conflict between a psychiatric nurse and patient (and between staff and the employing organisation) than in other NHS settings.

4.11 Methodological critique

4.11.1 Degree to which the sample is representative

The final sample of 75 staff comprised 59.5% of the total possible group of nurses (126). Sixteen were on long-term sick leave or maternity leave, five declined to take part and it proved impossible to establish an arrangement to administer the research with the remaining thirty staff.

The confidentiality of the personnel data system at Ashworth Hospital meant that information relating to this group was unavailable. It was therefore not possible to compare participants and non-participants on variable to determine if those who participated in the study were representative of the overall group of nursing staff in the Women's Services. It was also impossible to compare participants and non-participants on any of the variables which may have been psychologically meaningful or relate to the study.

It is, however, possible to speculate about possible sources of bias in the sample. The possible *reasons* for non-participation seem to be the crucial factor. If staff did not participate for emotionally or psychologically "neutral" reasons, it is likely that their non-participation might not introduce any particular bias. Those on maternity leave are likely to fall into this category,

although it is possible that these were women seeking escape from an intolerable work situation. In this case, these staff might have shown particularly high level of burnout and Negative Affect. Staff on long-term sick leave may have been experiencing stress-related illness.

Of the 35 who actively declined to participate or did not take part for “non-explicit” reasons, it is likely that their refusal reflected psychological factors. Historically, relationships between clinical psychologists and nursing staff had been poor. Some nurses may have been unwilling to “help” psychologists who, as a group, they viewed with antipathy. This group may have been particularly prone to projective identification with patients’ hostility and to acting this out through their refusal to participate in the study. The same dynamics may have been occurring in the case of those who more covertly evaded participation. These staff may have had relatively high levels of burnout and Negative Affect (too angry and emotionally worn-down to respond to another demand). Their reduced sense of Personal Accomplishment may have made them fear exposure through the research.

Overall, it seems likely that a significant proportion of the non-participants may have declined or avoided the study because they were in a relatively negative psychological and emotional state. If so, their participation would have been likely to amplify rather than attenuate the potency of the findings of this research.

4.11.2 Relationship between MBI and ERQ

Correlational analysis shows that the MBI subscale of Emotional Exhaustion and the two ERQ factors are closely related. The relationships are in the expected directions. Emotional Exhaustion is positively associated with Negative Affect and negatively associated with Positive

Affect. This suggests that Emotional Exhaustion and the ERQ (particularly Negative Affect) may be both measuring similar or overlapping underlying dimensions. This is further supported by the fact that Negative Affect and Emotional Exhaustion are sometimes both associated with the same staff variables (e.g. Length of service at Ashworth, all vignettes). These relationships lend support to the validity of the ERQ (convergent validity) which was designed for the purpose of this study and is not a known measure with its psychometric properties already well established.

The high correlations between Emotional Exhaustion and the ERQ factors are not surprising when one considers the items which comprise the subscale of Emotional Exhaustion. These tend to be predominantly emotional (rather than behavioural or cognitive) in content and use some of the same emotion words as the ERQ; for example "I feel emotionally drained by my work", "I feel frustrated by my job". In contrast, the Depersonalisation and Personal Accomplishment subscales tend to focus on more complex and cognitively-based constructs: "I feel recipients blame me for some of their problems", "I feel I'm positively influencing other people's lives through my work".

The close relationship between MBI and ERQ raises the question of whether the use of the ERQ adds anything to the study or whether it may be redundant when used with the MBI.

Arguments which support the use of the ERQ, are stronger than the case for its redundancy. First, it is likely that the ERQ is measuring a *related* but *different* underlying construct than that of burnout. Whilst the ERQ seems to tap affect, the MBI rests on responses to items which measure cognitive, behavioural and emotional responses.

There is weak evidence that where staff are experiencing Emotional Exhaustion, they tend to also have higher levels of Negative Affect. The converse does not seem to be true: a nurse is less likely to experience

Emotional Exhaustion in the absence of raised Negative Affect. The associations between Negative Affect and Emotional Exhaustion tentatively suggest that sustained or great Negative Affect may precede the development of burnout as measured by the MBI. Further research, preferably longitudinal in design, is needed to explore this hypothesis.

The sense conveyed by the informal comments offered by many participants, was that the experience of working in the Women's Services was often extreme and negative. It might be expected therefore that MBI scores would be elevated in comparison with other groups of staff. However, the levels of burnout found in this study were broadly equivalent to those found by other researchers investigating psychiatric nurses and to published norms. In previous studies too, the MBI has not reliably differentiated staff groups which might be expected to experience different levels of stress (e.g. general versus psychiatric versus forensic nurses). There are several possible reasons for this. As discussed before, the outcome of stress is the result of a complex process affected by a number of variables including personal characteristics, external support and the interactions between stressors and coping mechanisms. It may be the case that the MBI is too general an instrument to detect specific effects (e.g. affect) of working with violent women in such a setting.

The ERQ is a purer measure of emotion than the MBI and may be capable of identifying subtle differences in the quality of emotional responses to a variety of situations. Clearly, further research is needed to establish the utility of the ERQ. It would be interesting, for example, to see if it is sensitive to differences between nursing specialisms.

Finally, the ERQ was easy to administer and quick to complete. It seemed to have face validity for staff which was helpful in encouraging their participation and involvement beyond the mere completion of questionnaires. For example, the items often generated commentary and discussion in the testing setting.

As discussed earlier, there are hints that Negative Affect of the ERQ may be a precursor of Emotional Exhaustion. It would be useful to apply the ERQ in other settings and to explore its psychometric properties, its utility as a measure of emotional state in work settings and its relationship with burnout.

Overall then, it seems that, although the ERQ and MBI are related, the ERQ is far from redundant. It seems to be measuring a somewhat different, and different-order construct from the MBI and it has face validity for staff. Its subscales have an independent relationship with some of the other variables examined in this study.

4.11.3 The validity of vignettes

Vignettes are inevitably an artificial means of tapping into staffs' emotional responses to violent situations. They elicit a self-conscious, censored, oral response to a verbal description of violence rather than the immediate, reactive, primitive responses under conditions of high physiological arousal in a real situation. Videotaped scenes of the three forms of violence, especially with real staff and patients, would have improved the reality of the stimulus. Ethical problems concerning consent and confidentiality would probably preclude this. There would be difficulties in creating a sufficiently well-acted recording to be realistic. Using professional actors might have reduced this problem but also reduced the authenticity of the stimulus material.

A comparison of the frequency of *actual experience* of the vignette situation was made. This demonstrated that there was no difference in the frequency of encounter of the real situation between staff responding to each of the vignette types. In other words, staff who responded to the "self-harm" vignette were as likely to have experienced this situation in reality,

as staff responding to the “attack on patient” and “attack on staff” were to have experienced their vignette situations.

Although this fact does not reduce the artifice of using vignettes, it demonstrated that the distorting effect of vignette compared to the “real” situation, will be the same for all three types of violence.

A further problem with vignette methodology is that the equivalent salience of each vignette is assumed. The vignettes were written so as to be the same with the exception of the “independent variable”; the form of violence. It is possible that there are factors intrinsic to a scenario which affects its salience. For example, an assault on another person may simply be more horrifying than self-harm for personal or wider social reasons. It would have been possible to attempt to examine the respective salience of each vignette at a pilot stage by asking another sample of staff to independently rate each vignette for its emotional impact. Even if this had established differences between vignettes, it is difficult to determine how to adjust the salience to equivalent levels whilst retaining sufficient similarity for valid comparisons on the “dependent variables”.

An alternative methodology which would have avoided the use of vignettes at all, would have been to administer the questionnaires to staff following real incidents of violence. This would have been very difficult for practical reasons. Researcher availability would have meant variable and often considerable delays between the incident and the administration of the research. After an incident, staff are often unwilling and unable to free themselves up to take part in to study. A request would have been likely to feel like an irrelevant and insensitive intrusion into the main business of looking after patients.

A further problem with this methodology, is that complex real-life situations would introduce a range of other possible influences on staff's responses.

It would not have been possible to conclude that differences in MBI or ERQ scores were due to differences in the violence situation.

4.11.4 Issues of procedure

Staff were interviewed on the ward during their rostered duty time. This was convenient for staff and probably facilitated participation. It also had the advantage of providing a naturalistic setting in which staff were responding to material concerning their working environment, *in* their working environment. This may have maximised the immediacy and authenticity of their responses.

On the other hand, their responses may have been affected by the “mood” of the ward at the time of interviewing. Wards can be unsettled with women in distress and periods of high arousal in staff and patients. The ward setting factors may therefore have affected the responses elicited from staff who were interviewed. However, the times of testing were varied such that the testing conditions were reasonably randomised to minimise this effect.

A further consideration was that staff may have discussed the research amongst themselves so that some nurses may have already heard about the material before they were interviewed. Again, this is an unavoidable aspect of research which is conducted in a real situation rather than under laboratory conditions.

4.12 Implications of this research

Burnout and the personal distress experienced by staff can only have negative consequences on them and ultimately on the women patients.

Practical action is most likely to be initiated and sustained where there is an understanding of the issues of concern. Staff who work in the Women's Services, senior management and the bodies who impact on the distribution of resources need to be shown and helped to understand what the problems are for nursing staff, and how they are caused and maintained.

For the nurses this entails education about violence, why women perpetrate it, and the consequences of it for everyone. This understanding must emphasise the role of unconscious dynamic processes and how violence, perhaps especially self-harm, serves to perpetuate the abusive dynamic. Without such understanding staff are likely to be repeatedly drawn back, unawares, into the abusive cycles. Appropriate education and ongoing supervision in which these processes are recognised and made explicit, may go some way towards enabling staff to work together, and develop multi-disciplinary models for understanding and treating the woman. Such attempts are currently likely to be sabotaged by team conflicts and the re-enactment of abusive dynamics, as discussed earlier.

A particular kind of supervision is needed in which people are willing to consider the meaning and underlying motivation of their relationships and actions with their patients. This can be an exposing and threatening event and it requires sensitivity and persistence to develop a culture and model within which staff feel able to undertake such thinking.

The chances of other measures being successful would be increased if such a reflective climate can be created. There are a number of practical actions that the research suggests may be helpful. Personal Accomplishment is likely to be increased by a clearer therapeutic philosophy with consequent clarity for action in managing violence by patients. It would be essential that such a philosophy was developed by all disciplines involved in the women's care but nursing staff should have a disproportionately major role. It is they who spend most of their working

time with the women. It is crucial that they have full ownership of the treatment paradigm and believe it can work.

The relationship between length of service in the Women's Services, and negative feelings and Emotional Exhaustion, raises the question of whether staff would be protected if they stayed for only a limited time in this area. Staff could be rotated so that they spend a finite period of time working with the women. It should be possible to develop an understanding of the optimum length of stay for staff whereby their skills, confidence and Personal Accomplishment are maximised and before burnout and Negative Affect develops. However, it is also clear that length of time at Ashworth itself is connected with Negative Affect and burnout. Rotation elsewhere in the hospital may be unhelpful. Further research is needed to clarify the nature of the relationship between length of service and negative feelings and burnout before the consequences of rotation can be fully predicted.

The potential benefits of rotation for staff must be weighed against the possible negative effect on the patients. If nursing staff move on quickly, it will be more difficult for patients to develop trusting, therapeutic relationships with staff. This would, in effect, repeat the lack of consistent caring relationships that most of the women patients have experienced in their earlier lives.

There are also specific implications for male staff who may be particularly prone to Depersonalisation. Again, because the mechanisms underlying this relationship are unclear further investigation would be needed before specific recommendations could be made. There is a view that the women at Ashworth should be nursed only by female staff because of their pervasive histories of abuse by men. The contrary view also exists: that male staff are especially needed in order to provide positive, healing experiences of men for these women. In any case, male staff are likely to need specific understanding, supervision and support to work in the Women's Service.

The crucial applications of these findings are in alleviating the negative emotional impact and burnout in staff and ultimately improving the quality of care for the women patients. Ultimately this rests on understanding and action by senior management; an organisational response. Without this, any initiatives which may be put into place are very likely to fail because they will be sabotaged by the dynamic processes described in earlier sections.

4.13 Further research

Interest in this area originated from the very strong and sometimes disturbing feelings which working with the woman at Ashworth Hospital engendered in me as a clinical psychologist. This, and the observation of high rates of staff sickness, sparked this research.

As is often the case, this research raises more questions than it answers. Further research is required to elucidate some of the findings of this study. For example, as already discussed above, the relationships between the negative effects of working with the women, and gender and length of service are now known. However this study can only draw on related research and clinical opinion and speculate about the mechanisms which mediate these relationships. For example, although the research demonstrates that men experience more Depersonalisation than female staff, it is not clear if this is a socialised response to many situations, a response to working with *women* in particular, or whether male staff may undertake C&R more frequently and be injured more often than female staff. This might exacerbate their tendency to use Depersonalisation as a means of coping with the job. Without a better understanding, it is impossible to make specific recommendations for action.

The study questions the common but unproven assumption that the MBI measures a relatively enduring trait which develops over time in response to chronic stressors. The results of this research suggest that burnout may be a more immediate response, even to as an indirect stressor as a vignette scenario of violence. It is likely that the vignette is evoking well-established schemata based on frequent experiences of violent situation which make it relatively salient as a stimulus. Further research is needed to establish the development and timecourse of burnout and to see if this is affected by the nature and degree of the interpersonal stressors which staff are exposed to. The results of this research raise the possibility that burnout may arise not only in response to chronic interpersonal stressors but to salient interpersonal events such as violence.

Further research is required to establish the psychometric properties and utility of the ERQ, and it's relationship to burnout and to the MBI. A concept known as "negative affectivity" has received considerable attention in the stress research literature recently (e.g. Heinisch and Jex, 1997). It is defined as a stable trait which reflects the tendency to experience negative emotions and distress across situations and even in the absence of objective stressors. It is understood to have three possible effects within the stress-health relationship: as a confounding variable, a moderator and having a direct effect (Noor, 1997). It is plausible that Negative Affect is related to negative affectivity, and that the ERQ is tapping into this construct. Further consideration of this relationship would expand understanding of the meaning and usefulness of the ERQ.

In general, it has not been possible from this study to determine the degree to which the findings of the research are due to the effects of working with the *women*, per se, or whether they may be common to other areas of Ashworth Hospital. This would require replication of the study with staff in the male wards, although the lower incidence of self-harm in this area would have to be taken into account.

Epstein and Silvern (1990) found a converse relationship between length of time in the job and burnout similar to the finding in this research that Personal Accomplishment reduced (in relation to self-harm) with the length of time staff had worked with the women. The staff in this study worked with women who had been victims of domestic violence. Further research is needed to partial out the contributory effects of the patient/client's gender, relationship histories, and propensities to violence on staff burnout and negative responses. Men are generally perceived as the aggressors in our society and violence by men is perhaps deemed as more understandable, if not more acceptable. Several writers (e.g. Lanza, 1984 and Hunter, 1989) have pointed out the importance of staff being able to make sense of violence in order to recover from it. It may be more difficult for people to make sense of violence by a woman because of the stereotyped views of the genders and how they feel and manage aggression. Or they make sense of violence by women in different ways which in themselves increase negativity towards violent women, and increase burnout.

Poster (1996) points out that there has been little investigation into the effects of chronic violence rather than acute reactions to assault. This setting is one in which staff are subject to seeing and sometimes receiving chronic violence. Further comparative research is needed to understand the contribution of this chronicity to staff's psychological state.

It might be argued that the findings of this study have little generalisability. It is true that there are only three high-security psychiatric services for women in the country. However, many of the themes identified in this research have implications for related areas. For example, the prison service looks after women who express themselves through violent actions including self-harm and staff are often male. The stigma of this setting is probably similar to that experienced by staff and women patients at Ashworth Hospital, although the role conflict (between that of care and custody) may be less in the prison system.

In more general terms, it would be expected that the findings of this research would have bearing on any setting in which staff are subjected to chronic violence. Further research, as suggested above, would clarify the ways in which the findings of this research are generalisable.

The aim of this research was to examine the emotional impact of working in a high security setting for women characterised by high levels of violence. The emotional impact has been explored using broad measures. This would be vitally supplemented with “fine-grained”, detailed understanding of nursing staff’s experience elicited through qualitative methods. Semi-structured interviews would have major relevance in identifying the subjective experience and personal meaning of the phenomena found in “broad strokes” in this study.

For example, structured conversations with some staff would detail what it *feels like* to be burnt-out and to have high levels of Negative Affect. Through semi-structured interview, such information could be linked to other associated concepts: self-esteem, one’s perception of one’s role, professional competence, of the patients, the societal context, events at Ashwoth and so on. The detail of feelings and perceptions derived through qualitative methodology would enrich and elaborate understanding of the effects of violence by women in this setting.

Many of the ideas explored in this discussion are speculative in nature. For example, the notion that staff may find self-harm undermines their sense of competence because it generates particular role-conflict is an inference from the findings. Qualitative data would provide a means of supporting or disconfirming these speculations and direct further lines of enquiry both qualitative and quantitative. The spontaneity of comments offered by staff suggest that qualitative methods would yield rich material from which to determine better the meaning of the findings.

4.14 Summary and Conclusions

It is not surprising that staff with elevated levels of Emotional Exhaustion and Depersonalisation felt, on the whole, more negative in response to situations of violence. Intrinsic to the concept of burnout is the idea that it affects people's feelings towards their patients and their work.

Interestingly, burnout also seemed to be a response to a written stimulus of violence. Violence directed at different parties was associated with different types and degrees of burnout in staff. The study therefore finds some evidence for burnout as an immediate response to depictions of violence.

Staff felt most negative, but relatively competent in coping with, an attack by a patient on a member of nursing staff. It is likely that the predominant psychological mechanism underlying this is that of identification with the victim so that staff feel aggrieved on behalf of the victim and also have a sense of how they would want the situation to be managed if they were the assaulted person. This may confer a sense of knowing what to do, and hence competence.

The finding that staff have less sense of Personal Accomplishment in the case of self-harm compared to the other two situations of violence was striking. This lack of a feeling of competence *increased* with the length of time that staff had worked in the setting. Staff nurses were especially prone to negative feelings (particularly in the case of a patient assault on a patient). These are the staff group subject to relatively long periods of exposure to violence on the ward combined with a relatively high degree of responsibility. More senior staff may have greater responsibility but spend less time in direct patient contact and the converse pattern exists for the more junior staff. Men seem to respond with Depersonalisation more than women staff.

Taken together, these findings suggest that being immersed in a violent ward environment, with responsibility for the day-to-day running of the ward, and without a sense of knowing what to do to manage situations of violence are factors likely to exacerbate burnout and negative feelings.

Working in a high security psychiatric hospital is difficult and demanding in itself. Forensic psychiatric nursing has a relatively low status within nursing as a whole and receives little public approbation. Nurses are subject to conflict regarding their role; whether they are carers or custodians and how to balance these aspects. Violence by patients brings such conflict into stark relief and faces nurses with difficulty in resolving their role conflict on a daily basis. There is a real risk of injury to staff and it can be frightening to work on the wards. Finally, self-harm is prevalent and extreme. There are many psychological theories regarding the aetiology and maintenance of self-harm, sometimes with contradictory implications for its management. There is an absence of consensus and clear guidelines for managing self-harm. These factors are very likely to exacerbate negative feelings and burnout in staff and may indeed cause them.

Ideals of professionalism in nursing have tended to emphasise emotional neutrality and that nurses should put their own emotional needs second to those of their patients. This has discouraged frank acknowledgement of the negative feelings and burnout which staff experience. Maladaptive coping styles, such as denial of distress in nurses and avoidance of difficult situations, may be encouraged. Poor coping strategies may, in turn, increase nurses' negative feelings about their patients and their work and increase burnout.

Often the organisation colludes with this situation. Anxiety is high in maximum security institutions which attract public and media attention. The consequences of things going wrong can be very serious. There is a tendency for mutual blaming of other groups of staff to take place.

Typically, direct care staff blame management, and management may scapegoat nurses. A system tends to develop in which clinical and managerial practice becomes defensive: there is further denial and lack of openness and the damaging culture is perpetuated.

It is hoped that the findings of this study can be sensitively conveyed to ward nursing staff and senior managers without implying blame and in a way in which all parties can recognise the fundamental challenge of working in a setting such as the Women's Services at Ashworth Hospital. Through this, it may be possible for staff in different parts of the organisation to consider how staff, and ultimately the women patients, can be assisted to achieve a better quality of life.

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Appendix 1- Maslach Burnout Inventory

Emotional Exhaustion

1. I feel emotionally drained from my work.
2. I feel used up at the end of the day.
3. I feel fatigued when I get up in the morning and have to face another day on the job.
6. Working with people all day is really a strain for me.
8. I feel burned out from my work.
13. I feel frustrated by my job.
14. I feel I'm working too hard on my job.
16. Working with people directly puts too much stress on me.
20. I feel like I'm at the end of my rope.

Depersonalisation

5. I feel I treat some recipients as if they were impersonal objects.
10. I've become more callous toward people since I took this job.
11. I worry that this job is hardening me emotionally.
15. I don't really care what happens to some recipients.
22. I feel recipients blame me for some of their problems.

Personal Accomplishment

5. I can easily understand how my recipients feel about some things.
7. I deal very effectively with the problems of my recipients.
9. I feel I'm positively influencing other people's lives through my work.
12. I feel very energetic.
17. I can easily create a relaxed atmosphere with my recipients.
18. I feel exhilarated after working closely with my recipients.
19. I have accomplished many worthwhile things in my job.
21. In my work, I deal with emotional problems very calmly.

Appendix 2 - Information for possible participants.

Aims of the study

The project is concerned about the feelings, experiences and views of nursing staff (who have the most intensive contact with patients at Ashworth) about the women.

The intention is to develop a much better understanding of the experiences and stresses which you have daily at work and to find better ways of providing support and supervision for all staff working in this difficult field. The project has been accepted by the Ethics Committees and the relevant management groups.

What you would have to do?

If you are asked to take part in the research you will be approached on the ward in your work-time and the purpose of the study would be explained with opportunity for you to ask any questions you may have.

Questions would include some background information (e.g. how long you have worked at Ashworth, in the women's services etc). You would be asked to rate your feelings (on a short questionnaire) about a scenario describing a hypothetical incident on the ward and complete a brief questionnaire about stress and burn-out.

The whole process takes about 15 - 20 minutes. Your participation is completely voluntary and you could withdraw your consent at any time.

Confidentiality

Any information that you provide as part of the study would be confidential, for research purposes only and anonymous. I plan to give you feedback from the study but this would never identify any individuals.

Feelings

In case thinking and talking about your emotional reactions leaves you feeling in any way unsettled, I would be available to meet you afterwards at your convenience to talk through anything with you. Steve Keown and Astrid Henderson have agreed that should this need arise, it would be in work time for you. It would also be completely confidential.

Do not hesitate to contact me (2201 or by e mail) if you have any questions.

Kate Hellin
Lead Consultant Clinical Psychologist

Appendix 3 - Vignettes

“Self-harm” vignette

Sarah is 25 and has been detained in a high security hospital for 3 years. You have spent a lot of time working with her, trying to help her to come to terms with her past. You know about her sexual abuse as a child.

Today, she has harmed herself, causing several deep cuts and bruising which will require medical attention. This is not unusual. The other women patients are upset and angered by Sarah's behaviour and the ward atmosphere is very tense.

“Attack against staff” vignette

Sarah is 25 and has been detained in a high security hospital for 3 years. You have spent a lot of time working with her, trying to help her to come to terms with her past. You know about her sexual abuse as a child.

Today, she has attacked a member of staff, causing several deep cuts and bruising to the staff member which will require medical attention. This is not unusual. The other women patients are upset and angered by Sarah's behaviour and the ward atmosphere is very tense.

“Attack against patient” vignette

Sarah is 25 and has been detained in a high security hospital for 3 years. You have spent a lot of time working with her, trying to help her to come to terms with her past. You know about her sexual abuse as a child.

Today, she has attacked another patient, causing several deep cuts and bruising to the other patient which will require medical attention. This is not unusual. The other women patients are upset and angered by Sarah's behaviour and the ward atmosphere is very tense.

Appendix 4 - Description of main and pilot samples

Seventy-five nurses comprised the final sample and are compared with the twelve pilot people

A4.1 Gender of staff

Table A4.1 shows the frequency distribution of the main and pilot samples by their gender. Chi-square analysis showed no difference between the main and pilot populations with respect to sex (Chi square = 0.04, d.f.=1, n.s.).

Table A4.1 – Distribution of main and pilot samples by gender

<i>Sample</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
Main	29	46	75
Pilot	5	7	12
Total	34	53	87

A4.2 Age of staff

Table A4.2 shows the ages of the main and pilot samples of staff.

Table A4.2 - Distribution of main and pilot samples by age

<i>Sample</i>	<i>N</i>	<i>Mean</i>	<i>s.d.</i>
Main	75	38.71	8.58
Pilot	12	35.75	4.16

Equality of means was not demonstrated by Levene's Test in this case and the t-test for unequal means was therefore used. There was no significant

difference in age between the pilot and main samples ($t = 1.90$, d.f. = 29.06, n.s.).

A4.3 Length of service at Ashworth hospital

Table A4.3 shows the number of years staff in the main and pilot samples had worked at Ashworth Hospital.

Table A4.3 - Years working at Ashworth Hospital (main and pilot samples)

<i>Sample</i>	<i>N</i>	<i>Mean</i>	<i>s.d.</i>
Main	75	9.68	6.90
Pilot	12	10.46	5.40

There was no significant difference between the main and pilot populations with respect to the number of years they had worked at Ashworth ($t = -0.37$, d.f. = 85, n.s.).

A4.4 Years of service with the women patients at Ashworth Hospital

Table A4.4 shows the distribution of years spent by the staff working with the women patients at Ashworth Hospital

Table A4.4 - Years working with the women patients at Ashworth Hospital (main and pilot samples)

<i>Sample</i>	<i>N</i>	<i>Mean</i>	<i>s.d.</i>
Main	75	5.65	5.20
Pilot	12	5.83	2.65

There was no significant difference between the main and pilot populations with respect to the length of time they had spent working with the women patients ($t = -0.12$, d.f. = 85, n.s.).

A4.5 Grades of staff

Table A4.5 shows the distribution of the main and pilot staff by grade.

Table A4.5 - Distribution of main and pilot samples by grade

<i>Sample/grade</i>	<i>A and B</i>	<i>C, D and E</i>	<i>F and G</i>	<i>H and I</i>	Total
Main	35	29	9	2	75
Pilot	1	7	4	-	12
Total	36	36	13	2	87

Chi-square analysis showed a significant difference between the sample and

pilot populations with respect to staff grades (Chi square = 8.11, d.f. = 3, $p < 0.05$).

A4.6 Employment regimes

A4.6.1 Full or part time employment

Table A4.6 shows the frequencies of the main and pilot staff according to whether they were employed full or part time at the time of the study. The precise hours constituting "part-time" were not determined.

Table A4.6 – Distribution of pilot and main samples: full or part time

<i>Sample</i>	<i>Full</i>	<i>Part</i>	Total
Main	69	6	75
Pilot	12	0	12
Total	81	6	87

Chi-square analysis showed no difference between the sample and pilot populations with respect whether they worked full or part-time (Chi square = 1.03, d.f. = 1, n.s.)

A4.6.2 Permanent or bank staff

Table A4.7 shows the frequencies of the main and pilot staff according to whether they were employed as permanent members of staff or on the “bank”. The latter means that they were essentially “floating” staff who would work shifts anywhere in the hospital to bring shifts up to minimum staffing levels.

Table A4.7 - Distribution of pilot and main samples: permanent or bank staff

<i>Sample</i>	<i>Permanent</i>	<i>Bank</i>	<i>Total</i>
Main	67	8	75
Pilot	12	-	12
Total	79	8	87

Chi-square analysis showed no difference between the sample and pilot populations with respect whether they worked as permanent or bank staff, (Chi square = -1.41, d.f. = 1, n.s.).

A4.6.3 Night or day shift staff

Table A4.8 shows the frequencies of the main and pilot staff according to whether they were working on the night or day shifts at the time of the study.

Table A4.8 - Distribution of pilot and main samples: night shift or day shift

Sample	Nights	Days	Total
Main	14	61	75
Pilot	0	12	12
Total	14	73	87

Chi-square analysis showed no difference between the sample and pilot populations with respect whether they work on day or night shifts, (Chi square = 2.67, d.f.=1, n.s.).

A4.7 Wards of employment

Table A4.9 shows the frequencies of the main and pilot samples according to which of the four women's wards they usually worked on. Bank staff are not employed to work consistently on any particular ward. The pilot sample were specifically chosen because they had worked on women's wards but no longer did so. Because of this, a statistical comparison between main and pilot staff was impossible.

TableA4.9 - Frequency distribution of staff across wards

Ward	N	Percent
Acacias	14	16.1
Amber	18	20.7
Beeches	20	23.0
Cedars	17	19.5
bank staff	6	6.9
Pilot	12	13.8
Total	87	100.0

Appendix 5 - Emotions used in developing ERQ

Initial list

guilt	disgusted
resentment	sick
satisfaction	frightened
pleasure	vulnerable
revenge	scared
sadness	fed up
hatred	strong
sympathy	in control
pity	powerful
rage	competent
friendliness	desperate
tension	effective
anger	sluggish
exhaustion	rebellious
unhappiness	in pain
confusion	empathic
sorry	helpless
shaky	weary
peevied	compassion
on edge	bewildered
panicky	alert
hopeless	deceived
relaxed	excited
unworthy	furious
spiteful	efficient
sympathetic	trusting
uneasy	invigorated
restless	bad tempered
fatigued	worthless
helpful	carefree
annoyed	terrified
discouraged	guilty
resentful	uncertain
nervous	other
miserable	
cheerful	
bitter	
exhausted	
anxious	
ready to fight	

Excluded as “not likely” emotional responses to vignettes

satisfaction
pleasure
relaxed
unworthy
cheerful
powerful
rebellious
in pain
excited
efficient
invigorated
carefree
terrified

Appendix 6 - Emotional Response Questionnaire

Please read the accompanying short story and refer back to it any time you like.

Have you had direct experience of this kind of situation? (please circle)

1. Often
2. Occasionally
3. Never

You will now be given a description of a situation to read. On the next page you will find a list of emotions. Please rate how much you would feel each emotion if you were facing the situation described.

For example, if it would make you feel very exhausted, you might indicate this as shown below:

exhausted | _____
not at all very much so

Or if you would not feel at all cheerful in response to this situation you might score it as shown:

cheerful | _____
not at all very much so

Please complete the list over the page.

1. friendly | _____
not at all very much so

2. worthless | _____
not at all very much so

3. tense | _____
not at all very much so

4. confused | _____
not at all very much so

5. uneasy | _____
not at all very much so

6. anxious | _____
not at all very much so

7. nauseous | _____
not at all very much so

8. empathic | _____
not at all very much so

9. compassionate | _____
not at all very much so

10. helpful | _____
not at all very much so

11. angry | _____
not at all very much so

12. unhappy | _____
not at all very much so

13. sympathetic | _____
not at all very much so

14. annoyed | _____
not at all very much so

15. alert | _____
not at all very much so

16. guilty | _____
not at all very much so

17. shaky | _____
not at all very much so

18. on edge | _____
not at all very much so

19. hopeless | _____
not at all very much so

20. deceived | _____
not at all very much so

21. fed up | _____
not at all very much so

22. discouraged

| _____ |
not at all very much so

23. fatigued

| _____ |
not at all very much so

24. vulnerable

| _____ |
not at all very much so

Appendix 7 - Staff Demographic Interview Schedule

1. Name
2. Age
3. Gender
4. Grade (A,D etc)
5. Permanent
Bank
6. Full-time
Part-time
7. Nights
Days
8. Years at Ashworth
9. Years working with the women
10. Present ward

Appendix 8– Relationships between vignettes and demographic variables (non-significant).

A8.1 Age

Table A8.1 - Correlations between MBI and ERQ scores and age ("self-harm" vignette)

<i>Subscale/factor</i>	<i>r</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.05	24	n.s.
Depersonalisation	-0.11	24	n.s.
Personal Accomplishment	-0.09	24	n.s.
Negative Affect	0.18	24	n.s.
Positive Affect	0.08	24	n.s.

Table A8.2 – Correlations between MBI and ERQ scores and age ("attack on staff" vignette)

<i>Subscale/factor</i>	<i>r</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	-0.04	23	n.s.
Depersonalisation	-0.14	23	n.s.
Personal Accomplishment	0.10	23	n.s.
Negative Affect	0.23	23	n.s.
Positive Affect	0.32	23	n.s.

Table A8.3 – Correlations between MBI and ERQ scores and age ("attack on patient" vignette)

<i>Subscale/factor</i>	<i>r</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.13	22	n.s.
Depersonalisation	0.20	22	n.s.
Personal Accomplishment	0.15	22	n.s.
Negative Affect	0.12	22	n.s.
Positive Affect	0.29	22	n.s.

A8.2 Gender

Table A8.4 – Differences in MBI and ERQ scores by gender (“self-harm” vignette)

<i>Subscale/factor</i>	<i>t</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.85	24	n.s.
Depersonalisation	1.78	24	n.s.
Personal Accomplishment	0.31	24	n.s.
Negative Affect	0.09	24	n.s.
Positive Affect	-0.31	24	n.s.

Table A8.5 – Differences in MBI and ERQ scores by gender (“attack on staff” vignette)

<i>Subscale/factor</i>	<i>t</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.33	23	n.s.
Depersonalisation	-0.04	23	n.s.
Personal Accomplishment	0.86	23	n.s.
Negative Affect	-1.37	23	n.s.
Positive Affect	-0.03	23	n.s.

A8.3 Years at Ashworth

Table A8.6 – Correlations between MBI and EPQ scores and years served at Ashworth Hospital (“self-harm” vignette)

<i>Subscale/factor</i>	<i>r</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.38	24	n.s.
Depersonalisation	0.27	24	n.s.
Personal Accomplishment	-0.24	24	n.s.
Negative Affect	0.09	24	n.s.
Positive Affect	-0.11	24	n.s.

A8.4 Grade

Table A8.7– Differences in MBI and ERQ scores by grade (“self-harm” vignette)

<i>Subscale/factor</i>	<i>F</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	1.66	2,23	n.s.
Depersonalisation	0.25	2,23	n.s.
Personal Accomplishment	0.22	2,23	n.s.
Negative Affect	0.85	2,23	n.s.
Positive Affect	0.19	2,23	n.s.

Table A8.8 – Differences in MBI and ERQ scores by grade (“attack on staff” vignette)

<i>Subscale/factor</i>	<i>F</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	1.05	3,21	n.s.
Depersonalisation	0.14	3,21	n.s.
Personal Accomplishment	1.20	3,21	n.s.
Negative Affect	0.24	3,21	n.s.
Positive Affect	2.22	3,21	n.s.

A8.5 Ward

Table A8.9 – Differences in MBI and ERQ scores by ward (“self-harm” vignette)

<i>Subscale/factor</i>	<i>F</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.61	4,21	n.s.
Depersonalisation	1.12	4,21	n.s.
Personal Accomplishment	1.13	4,21	n.s.
Negative Affect	0.87	4,21	n.s.
Positive Affect	1.86	4,21	n.s.

Table A8.10 – Differences in MBI and REQ scores by ward (“attack on staff” vignette)

<i>Subscale/factor</i>	<i>F</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.31	4,20	n.s.
Depersonalisation	0.71	4,20	n.s.
Personal Accomplishment	0.35	4,20	n.s.
Negative Affect	0.62	4,20	n.s.
Positive Affect	0.40	4,20	n.s.

Table A8.11 – Differences in MBI and ERQ scores by ward (“attack on patient” vignette)

<i>Subscale/factor</i>	<i>F</i>	<i>d.f.</i>	<i>Probability level</i>
Emotional Exhaustion	0.47	4,19	n.s.
Depersonalisation	1.97	4,19	n.s.
Personal Accomplishment	1.22	4,19	n.s.
Negative Affect	1.07	4,19	n.s.
Positive Affect	0.44	4,19	n.s.