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**WORKPLACE BULLYING, PATIENT VIOLENCE AND  
QUALITY OF CARE: A REVIEW**

Chris Woodrow and David Guest

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## **ABSTRACT**

Healthcare staff have been singled out as being at particularly high risk of both bullying from colleagues and acts of violence from members of the public. Survey research has identified a number of possible antecedents and consequences of these behaviours. However, the academic literature has rarely examined how workplace bullying and patient violence in the healthcare workforce might in turn affect patients. The main aim of this paper is to outline some of the pathways by which the antecedents and consequences of workplace bullying and patient violence might be associated with the quality of care received by patients. This is achieved through a review of research evidence from the organisational behaviour field. The literature that is described suggests that workplace bullying and patient violence may be linked to undesirable outcomes for healthcare staff, which may in turn be associated with lowered quality of care for patients. Unfortunately, an over-reliance on cross-sectional methodology means that results have often been difficult to interpret. There is, however, huge scope for further research. In particular, this might involve the use of prospective research methodologies and the design and evaluation of interventions to reduce workplace bullying and patient violence.

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## **1. GENERAL INTRODUCTION**

The issues of bullying and violence in the workplace have seen steadily increasing attention in the academic literature over the last two decades. Healthcare staff have been singled out as being at particularly high risk of both bullying from colleagues as well as acts of violence from members of the public. Survey research has revealed worryingly high levels of both of these behaviours within the National Health Service (NHS), where initiatives such as the “NHS Zero Tolerance Zone Campaign” (Department of Health, 1999) have been launched in an effort to counter the problems. In economic terms, it has been estimated that the annual cost to the NHS of violence towards staff is 69 million pounds, excluding costs related to staff replacement, treatment and compensation claims (National Audit Office, 2003). Much of the academic work in these areas has focussed on the possible antecedents and consequences of bullying and patient violence. However, the literature has rarely looked beyond the possible harm caused to healthcare staff. In fact, these behaviours may also affect patients by reducing the quality of care they receive. It is becoming increasingly clear that staffing issues within the healthcare sector may have a large influence on the quality of care provided to patients (Wachter, 2004). This paper supports the view that bullying within the healthcare workforce and patient violence towards healthcare staff may be one route by which this quality is compromised.

Previous work in the organisational behaviour literature has demonstrated links between a number of organisational, psychological and behavioural factors in the healthcare workforce and the quality of care provided to patients. Michie and West's (2004) framework, for example, examines the management and psychological literature to describe links between organisational factors and patient care in five stages: Context, people management, psychological

consequences for employees, employee behaviour and patient care. The roles of bullying and patient violence are not examined as part of this framework. However, there is a growing literature examining these behaviours, their possible undesirable consequences, and their apparent heightened risk in the healthcare sector. The next step, therefore, would appear to be to examine their associations with patient care. Therefore, the aim of this paper is to show that these behaviours are a significant problem in the healthcare workforce, and to demonstrate how they might be integrated into a larger framework of organisational performance in healthcare.

The paper begins with a brief discussion of some of the conceptual issues and theories relevant to the fields of workplace bullying and patient violence. The literature describing the prevalence of these behaviours is then examined in order to highlight their extent within the healthcare sector. Thereafter, some of the possible pathways by which the antecedents and consequences of bullying and patient violence may link to the quality of care provided to patients are reviewed. Finally, the implications of the existing research evidence are discussed. Although some research has examined workplace bullying from a sociological perspective, the aim of this paper is primarily to draw from the organisational behaviour literature. The paper aims to review research evidence from within the healthcare field, although evidence from outside healthcare is examined when this is not possible. This paper is not an exhaustive review of the research evidence. Rather, the goal is to highlight relevant work from the organisational behaviour literature in order to encourage the consideration of a wider view of bullying and patient violence in healthcare and to stimulate further and better quality research.

## **2. BACKGROUND TO WORKPLACE BULLYING AND PATIENT VIOLENCE**

### **2.1 Conceptual Issues in Workplace Bullying Research**

The issue of workplace bullying has seen a huge increase in attention in the academic literature during the last two decades. Unfortunately, research in the area has been complicated by a lack of consensus surrounding both what constitutes the behaviour and which terms should be used to describe it. The term “bullying” has generally been used in the UK and other English speaking countries (Quine, 1999), whilst “mobbing” has predominantly been used in the large body of Scandinavian and German literature in this area (Einarsen, 2000). Related terms such as “employee abuse” and “emotional abuse” are more generally associated with the North American literature (Keashly, 1998), “aggression” has been used to describe specific aggressive acts between staff in the workplace (Brown & Sumner, 2006), and “horizontal violence” is used particularly in the nursing literature. “Abusive supervision” has also been used in the management literature to refer to displays of hostile behaviour, excluding physical abuse, perpetrated by a supervisor. These terms have represented overlapping approaches to the research, although their interchangeable use has become more common as interest has grown.

In terms of which types of behaviours actually constitute bullying, Rayner and Hoel (1998) provided an early and widely cited framework. These authors

clustered bullying behaviours into five groupings: “threat to professional status” (belittling opinion, public professional humiliation, accusation regarding lack of effort), “threat to personal standing” (e.g. name-calling, insults, intimidation, devaluing with reference to age), “isolation” (e.g. preventing access to opportunities, physical or social isolation, withholding of information), “overwork” (e.g. undue pressure, impossible deadlines, unnecessary disruptions) and “destabilization” (e.g. failure to give credit when due, meaningless tasks, removal of responsibility, repeated reminders of blunders, setting up to fail). The authors note that whilst physical abuse may constitute bullying behaviour, it is very rarely reported by victims. Cowie, Naylor, Rivers, Smith, & Pereira (2002) report that factor analyses of a number of questionnaires that have been used to measure bullying, such as the Negative Acts Questionnaire (NAQ, Einarsen & Raknes, 1997) and the Leyman Inventory of Psychological Terror (LIPT, Leymann, 1990) have revealed factor structures similar to Rayner and Hoel’s (1998) original classification.

In terms of a definition of workplace bullying, researchers have gradually narrowed towards a consensus. Although differing timescales have been used, the following definition of workplace bullying appears to be the most widely cited in the literature:

*“Bullying at work means harassing, offending, socially excluding someone or negatively affecting someone’s work tasks. In order for the label bullying (or mobbing) to be applied to a particular activity, interaction or process, it has to occur repeatedly and regularly (e.g., weekly) and over a period of time (e.g. about six months). Bullying is an escalating process in the course of which the person confronted ends up in an inferior position and becomes the target of systematic negative social acts. A conflict cannot be called bullying if the incident is an isolated event or if two parties of approximately equal ‘strength’ are in conflict”* (Einarsen, Hoel, Zapf, & Cooper, 2003)

In the current paper, the term “bullying” is used with reference to this definition, where both the perpetrator and the victim of the behaviour are members of staff. For the purposes of clarity, methodologies used by individual studies are described where possible and appropriate.

## **2.2 Conceptual Issues in Patient Violence Research**

The academic literature examining violent behaviour of the public towards healthcare staff is also steadily growing, although the topic has received less research attention and in a less systematic fashion than workplace bullying. Unfortunately, the area is subject to the same conceptual problems as the bullying field, with a lack of common terminology again the major problem. The terms “aggression” and “violence”, for example, have both been used to refer to abuse directed at healthcare professionals by patients. Some researchers have used “aggression” to describe verbal abuse and “violence” to describe physical abuse, although more recently, “violence” has been used to describe both verbal and physical acts (Gates, Ross, & McQueen, 2006; Winstanley & Whittington, 2004). Physical abuse tends to account for a far smaller proportion of reported incidents (Whittington, Shuttleworth, & Hill, 1996). In the academic literature, little consensus has been reached in terms of operational definitions, rendering meaningful comparison of research a difficult task (see Rippon, 2000, for a detailed discussion of this issue), although the following definition of “violence towards healthcare staff” is one of the most widely cited:

*“Any incident in which a person working in the healthcare sector is verbally abused threatened or assaulted by a patient or member of the public in circumstances relating to his or her employment”* (Health Services Advisory Committee, 1997)

In the current paper, the term “patient violence” is used with reference to this definition, to include either physical or verbal abuse, where the victim is a

member of staff and the perpetrator is a member of the public. Methodologies used by individual studies are described where possible and appropriate.

### **2.3 Prevalence of Workplace Bullying**

There is now a reasonably large body of research which has utilized survey methodology to describe the prevalence of workplace bullying, both in general workplace settings and in specific healthcare settings. Unfortunately, however, the measurement of bullying behaviour is fraught with difficulties. An obvious problem with the opt-in survey methodology used in most of the studies in this area is one of response bias, with victims of bullying being (at least in theory) more likely to complete and return their questionnaires (Whittington et al., 1996). Whilst this may have the effect of artificially inflating prevalence rates, it is important to note that this bias exists across all sectors, and is unlikely to be responsible for the higher prevalence rates which have been observed in healthcare staff. Others have noted the reliability problems associated with survey research which relies on individuals' perceptions of their victim status without third party verification (Coyne, Chong, Seigne, & Randall, 2003).

A further problem with work in this area is that researchers have not examined bullying in a uniform fashion, making the comparison of findings a difficult task. Zapf et al. (2003) provide a detailed discussion of workplace bullying prevalence rates and the associated measurement problems, noting that two main approaches to the measurement of bullying have been adopted. Some researchers have approached the issue by posing a single question, such as: "have you been bullied in the previous 12 months?" In research with staff across a variety of industries, these studies typically yield bullying prevalence rates of around 10 percent to 25 percent. However, if respondents are additionally provided with a definition of bullying, rates drop to as low as 1 percent to 4 percent (ibid). The significantly higher rates found when no definition is supplied are likely to be caused by individuals labelling themselves as victims of bullying

as a result of isolated incidents rather than a process of escalation that occurs over a period of time. A second approach involves asking participants whether they have been exposed to several behaviours which are thought to be associated with bullying, using questionnaires such as the NAQ (Einarsen et al., 1997) or the LIPT (Leymann, 1990). Respondents who indicate that they have been exposed to one or more of the provided bullying behaviours are coded as victims. This methodology has revealed prevalence rates of around 3 percent to 7 percent in the general working population (Zapf, Einarsen, Hoel, & Vartia, 2003).

This line of enquiry has also seen studies focus specifically on the healthcare sector and has been useful in providing benchmark levels of workplace bullying within the NHS, where nurses and midwives are thought to be at particularly high risk (Ball, Curtis, & Kirkham, 2002). The general consensus within the literature is that healthcare staff are at increased risk of becoming victims of bullying over staff from many other sectors (Zapf et al., 2003). Commentators have suggested that this may be due to the stressful and hierarchical nature of many medical professions which fosters a culture of abuse towards junior staff, or the imposition of targets which creates friction between management and clinical staff (British Medical Association, 2006; Stevenson, Randle, & Grayling, 2006). An early survey of one NHS community trust appearing in the British Medical Journal drew attention to the issue, revealing that 38 percent of respondents had experienced one or more of twenty forms of bullying in the previous year, with 42 percent reporting that they had observed others being bullied. Bullying was most often perpetrated by a superior (Quine, 1999). Later survey research in the NHS expanded on this finding, with 44 percent of nurses (compared to 35 percent of other NHS staff) in another study reporting that they had experienced one or more types of bullying in the last 12 months. Fifty percent reported that they had witnessed others being bullied (Quine, 2001). Another national survey of NHS nurses revealed that 23 percent of respondents responded positively to the question "Have you been bullied / harassed by a member of staff in the previous

12 months?” (Royal College of Nursing, 2005c). The Healthcare Commission’s most recent survey of staff, which simply asks whether or not the respondents have experienced “harassment, bullying or abuse” in the past 12 months (without providing a definition), revealed a prevalence rate of 17 percent across all NHS trusts (The Healthcare Commission, 2007).

Other studies have focussed specifically on doctors. For example, a survey of junior doctors revealed that 84 percent of respondents reported experiencing one or more bullying behaviours in the previous 12 months (although only 37 percent actually identified themselves as having been bullied after reading a definition), whilst 69 percent reported that they had witnessed the bullying of others (Quine, 2002). A study examining NHS doctors in training revealed that 18 percent of respondents considered themselves to have been bullied, with levels higher in non UK residents, women and more junior grades (Paice, Aitken, Houghton, & Firth-Cozens, 2004). These findings support research from North America revealing high levels of mistreatment of junior medical staff (Daugherty, Baldwin, Jr., & Rowley, 1998; Silver & Glicker, 1990; Mangus, Hawkins, & Miller, 1998).

## **2.4 Prevalence of Patient Violence**

Conceptual issues have also confused the measurement of patient violence, and may be responsible for wide variation in prevalence rates seen in the literature. Response bias is also likely to be an issue in survey research in this area. Notwithstanding these problems, the consensus in the literature is that healthcare staff are also at increased risk of violence from members of the public when compared with staff in many other sectors. The risk of an NHS nurse encountering acts of violence is estimated to be four times higher than the national average for workers across all sectors (Budd, 1999), and “health and social welfare associate professionals” (including nurses and paramedics) were second only to “protective service occupations” (including police and prison service officers) in their risk of violence at work in a recent analysis of the British

Crime Survey (Upson, 2004). Moreover, the evidence suggests that patient violence towards NHS staff is on the increase, although it is unclear whether this is in fact a product of heightened awareness of the issues or an improvement in reporting systems (Linsley, 2007) following initiatives such as the “NHS Zero Tolerance Zone Campaign” (Department of Health, 1999). Despite this increase, incidents are still believed to be significantly under-reported by NHS staff. Factors such as low expectations of the likelihood of ameliorative action, the time consuming nature of reporting and the excessive workloads of healthcare staff have been suggested as reasons for under-reporting (Ferns & Chojnacka, 2005; Ferns, 2006).

In terms of research with healthcare staff, an early survey of over 500 NHS workers conducted by the Health Services Advisory Committee (HSAC, 1987) revealed that 11.5 percent of respondents had received an injury as a result of physical abuse from patients and 17.5 percent had been subjected to verbal abuse. Other survey research conducted in the area has revealed even higher prevalence rates. A study conducted in an NHS general hospital found that 27 percent of respondents were physically assaulted in the previous year, with 23 percent experiencing threatening behaviour from patients and 15.5 percent from visitors (Winstanley et al., 2004). A similar study in an NHS hospital revealed that 21 percent of staff had been physically assaulted (regardless of whether or not an injury had been sustained) in the previous year and 43 percent had been verbally abused (Whittington et al., 1996). Rates of violence were highest amongst nursing staff. The 2006 national survey of NHS staff showed that 27 percent of respondents across all NHS trusts reported experiencing “harassment, bullying or abuse from patients or their relatives” and 12 percent reported experiencing “physical violence from patients or their relatives” in the previous 12 months (The Healthcare Commission, 2007). Approaching the issue from a different perspective, the Home Office’s analysis of the British Crime Survey (which reflects more serious incidents deemed as crimes) reported that 2.5 percent of “health and social welfare associate professionals” (including nurses,

midwives and other allied health professionals) and 2.3 percent of “health professionals” (including doctors and other medical practitioners) had suffered one or more incidents of violence at work. The average prevalence across all working adults was 1.7 per cent (Upson, 2004). Midwives (The Healthcare Commission, 2007) and staff working in Psychiatry, Accident and Emergency and Geriatric settings (Jackson, Clare, & Mannix, 2002; Estry-Behar et al., 2008) have been identified as being at particularly high risk of patient violence.

A number of studies have concentrated on the prevalence of patient violence amongst particular occupational groups from the healthcare workforce. For example, a British Medical Association survey of UK doctors found that approximately 39 percent of respondents had experienced some form of violence in the workplace during the past month, with the highest rates amongst doctors working in Accident and Emergency or Psychiatry (British Medical Association, 2003). Nursing staff have also been the subject of numerous studies. In the most recent survey published in the area, conducted with nursing staff in 10 European countries, 22 percent of respondents from a range of disciplines reported that they regularly experienced “violent events” (Estry-Behar et al., 2008). Prevalence rates for patient violence in specific countries ranged from 9 percent to 39 per cent, and of the 10 countries surveyed, UK nurses (29%) were second only to French nurses (39%) in terms of prevalence. A review of violence in UK nursing (Wells & Bowers, 2002) reported that the evidence suggests that the prevalence of physical assaults on nurses in general hospital settings is likely to be no less than the 9.5 percent reported in an earlier Health Services Advisory Committee survey (HSAC, 1987).

## **2.5 Conclusions**

Research examining both bullying and patient violence within the healthcare sector has been confused by a lack of consensus regarding definitions and, consequently, the measurement of the behaviours, leading to rather wide

variations in reported prevalence rates. However, researchers in both fields appear to be starting to investigate the issues in a more systematic fashion. Research in these areas has also relied primarily on self report measures which are open to bias, rather than using more objective measures such as third party validation or reviews of other data sources. Nonetheless, the body of evidence that has accumulated suggests that healthcare staff are at high risk of both bullying (Zapf et al., 2003) and violence from members of the public (Upson, 2004) when compared to staff in many other sectors. Moreover, healthcare staff in the UK appear to be at relatively high risk of violence when compared to staff in other European countries, although it is difficult to tell whether this is also the case with regard to bullying. In terms of occupational groups, some evidence suggests that nursing staff appear to be at particularly high risk of both behaviours. Whilst violence appears to be at its most prevalent in psychiatry and accident and emergency departments, little research has examined bullying in different areas of medicine.

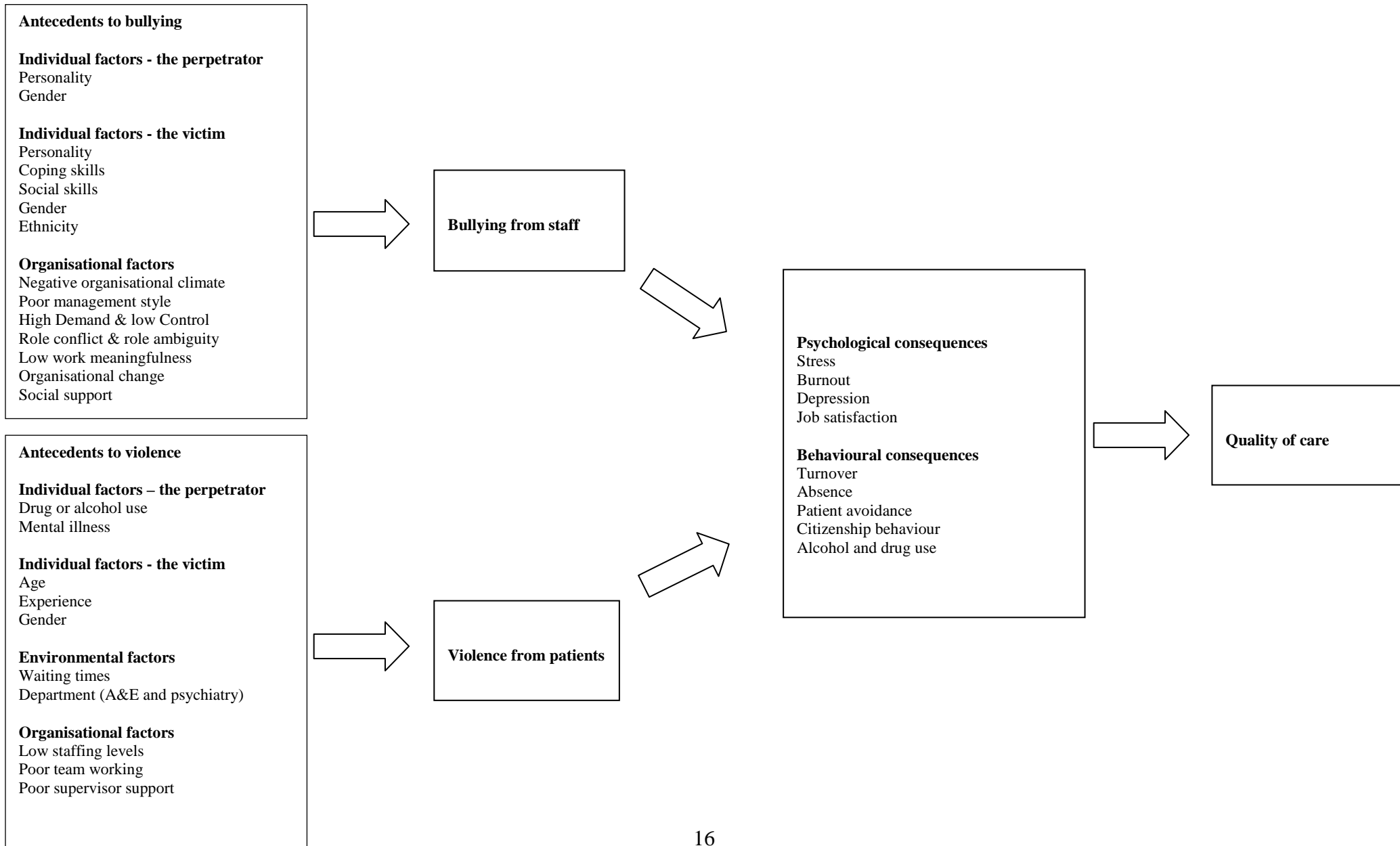
### **3. WORKPLACE BULLYING, PATIENT VIOLENCE AND QUALITY OF CARE**

Academic research in the areas of bullying and patient violence in healthcare has tended to centre on the prevalence, antecedents and consequences of these

behaviours, generally by examining other associated factors using survey methodology. However, there has been relatively little interest in how these findings might in turn be associated with the quality of care provided to patients. This may be because much of the empirical literature has approached the issue from either an organisational or a psychological perspective, omitting the link to quality of care, an area traditionally associated with health services research. There is, however, a growing awareness of the potential influence that workforce issues may exert in this area (Wachter, 2004), and existing empirical evidence points towards a number of links between bullying, patient violence and various measures of quality of care. Given the high prevalence of bullying and patient violence within the healthcare sector, these links appear worthy of investigation.

The following sections of this paper will examine the psychological and organisational literature to outline the pathways which may link the antecedents of bullying and patient violence, the consequences of these behaviours, and the quality of care passed on to patients. Figure 1 summarises the research evidence to date that contributes to this framework. The evidence will be examined in two sections: First the antecedents and consequences of bullying and patient violence will be examined (including a brief description of interventions). Second, possible links between some of these factors and measures of quality of care will be described.

**Figure 1: The Links between Bullying, Patient Violence and Quality of Care**



## **4. ANTECEDENTS AND CONSEQUENCES OF BULLYING AND PATIENT VIOLENCE**

A body of literature has evolved to describe the possible antecedents and consequences of staff bullying and patient violence on healthcare staff. Whilst the antecedents to the two behaviours are quite different, much of the literature suggests that the consequences are rather similar, although the bullying literature is more developed than that of patient violence. Research examining the consequences of bullying and violence has tended to focus on either psychological or behavioural outcomes in staff. The vast majority of research in these areas is based on cross-sectional designs. Therefore, the direction of causality cannot usually be inferred from findings.

### **4.1 Antecedents of Workplace Bullying**

Research seeking to explain antecedents to workplace bullying has been conducted across a range of organisational settings, and has focussed primarily on two areas. The first of these has examined the personality and individual differences of those involved in bullying, whilst the second has examined the characteristics of the organisation. Many authors have now adopted the view that both individual and organisational factors are important in understanding bullying behaviour (Zapf, 1999; Einarsen, Hoel, Zapf, & Cooper, 2005).

Research examining personality variables salient to workplace bullying has paid only limited attention to the personality of the perpetrator (Hoel & Salin, 2003). Some authors have implicated the psychopathic personality of the bully as a major factor in workplace bullying (Field, 1996), with others linking bullying behaviour with disorders such as narcissistic personality disorder and antisocial personality disorder (Randall, 2001). There is very little at present in the way of empirical evidence to support these theories, although some studies have sought victims' views of the personalities of perpetrators. For example, studies have showed that many victims attribute bullying to the difficult personality of the

perpetrator (O'Moore, Seigne, McGuire, & Smith, 1998) or their feelings of envy or uncertainty (Björkqvist, Österman, & Hjelt-Bäck, 1994).

Research examining the personality of the victim as a possible antecedent to bullying has been rather more fruitful. Some authors have suggested that personality factors might predispose individuals to becoming targets of bullies, either because they are perceived as weak by perpetrators, or because they provoke conflict at work (Coyne, Seigne, & Randall, 2000). Coyne et al. (2000) showed that victims of bullying are less independent, less extroverted, less stable and more conscientious than non-victims, whilst Vartia (1996) demonstrated increased neuroticism and negative self images in victims of bullying. Coyne et al. (2003) found victims of bullying to exhibit lower scores for stability (which indicates being anxious and easily upset) than non-victims. Matthiesen and Einarsen (2001) used the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), a widely used instrument to assess adult psychopathology, to classify victims of bullying into 3 groups. The seriously "affected group" were anxious, depressed, suspicious, troubled by confused thoughts and uncertain of themselves. The "disappointed and depressed" group had a tendency towards becoming depressed and suspicious of the outside world, whilst the "common" group of victims exhibited normal personality profiles. Victims of bullying have also been shown to exhibit change-related anguish, difficulties in making decisions, passive-aggressive traits, the need for attention and affection (Girardi et al., 2007), an inability to cope, and lower social skills (Zapf, 1999) than non victims. Debate surrounds the issue of cause and effect in this area, however. Notably, Leyman (e.g. 2007) has argued that personality factors must always be a symptom of bullying rather than a cause.

In terms of individual differences, some evidence has shown that women are more likely to report being victims of bullying than men (e.g. Quine, 2002). Zapf et al (2003) conclude that this difference is unlikely to be due to a specific female socialisation, and is probably related to the over representation of women in

many of the samples studied, their tendency towards holding subordinate positions within these samples, or response bias due to the emotional nature of the research. Men tend to be over represented as perpetrators of workplace bullying, probably because of their greater propensity for aggressive behaviour (Zapf et al., 2003). Other research has examined the role of ethnicity in bullying behaviour, with some evidence showing higher rates of bullying among ethnic minority respondents (e.g. Hoel & Cooper, 2000; Quine, 2002). It has been suggested that these differences occur as a result of perceived power imbalances which lead to traditional minority roles becoming exaggerated (Salin, 2003), whilst there is also likely to be some overlap between the reporting of bullying and racial discrimination.

Most of the academic literature examining antecedents to workplace bullying has examined features of the organisation which are associated with this behaviour. A focus of research in this area has been psychosocial work environment, where it has been theorised that certain negative features of the environment may lead to occupational stress, conflict and bullying (Hoel et al., 2003). Evidence for this theory comes from a number of studies showing that negative perceptions of the work environment are associated with bullying behaviour (Hoel et al., 2000; Einarsen, Raknes, & Matthiesen, 1994; Zapf, Knorz, & Kulla, 1996; Agervold & Mikkelsen, 2004; Zapf, 1999). It must be noted, however, that much of the research in this area is based on cross-sectional survey data. It is equally plausible, therefore, that victims of bullying rate various aspects of their work environment more negatively than others as a consequence (rather than a cause) of bullying. Survey research has shown associations between bullying behaviour and perceptions of a poor management style, as perceived by both victims of bullying (Hoel et al., 2000; Einarsen et al., 1994; Agervold et al., 2004) and independent observers (Vartia, 1996). High workload (Hoel et al., 2000; Quine, 2001) is also associated with bullying behaviour. Victims of bullying report higher levels of role conflict (Einarsen et al., 1994), higher levels of role ambiguity (Quine, 2001; Agervold et al., 2004), lower levels of work

meaningfulness (Agervold et al., 2004), and lower levels of job control (Einarsen et al., 1994; Vartia, 1996; Zapf, 1999) than non-victims. In addition, organisational change is associated with the incidence of bullying behaviour. Hoel et al. (2000) showed that instances of bullying were significantly correlated with various aspects of organisational change, including major organisational changes, budget cuts, major technological changes, major internal restructuring and changes of management. Similarly, many of the victims of bullying in a survey by Rayner (1997) reported that the onset of bullying coincided with a recent change in job or manager. Social support may also be related to the development of workplace bullying. Zapf et al. (1996), for example, showed that more social support from supervisors and colleagues was related to lower levels of various bullying behaviours. Finally, organisational culture has been implicated in the development of bullying behaviour in the workplace, and it has been suggested that organisations characterised by high degrees of group pressure or conformity (such as prisons and the armed forces) are particularly prone to bullying (Hoel et al., 2003).

Salin (2003) proposes a three tier model of organisational antecedents to workplace bullying. Enabling structures, which make it possible for bullying to occur in the first place, include perceived power imbalances between the bully and the victim, low perceived costs of bullying, and dissatisfaction and frustration with the working situation and the organisational climate. Motivating processes, which make bullying behaviour a rewarding activity, include high internal competition, certain reward systems, and expected benefits. Precipitating processes, which can trigger bullying behaviour, include restructuring, downsizing and changes in the composition of the work group. Salin argues that the interplay of these processes leads to bullying behaviour. Although a useful framework for examining the organisational factors salient to workplace bullying, it must be noted that some of the academic literature in this area is still in its infancy, and the evidence cited is often of poor methodological quality or entirely

theoretical in nature. Moreover, as Hoel and Salin (2003) point out, the complex nature of bullying scenarios mean that it is extremely difficult to predict outcomes.

#### **4.2 Antecedents of Patient Violence**

The literature examining patient violence is far less developed than the related field of bullying, and research has thus far generally failed to examine the issues in a systematic fashion. It is also important to note that research in general medical settings is sparse, with much of the work in this area conducted in accident and emergency or psychiatry departments where the underlying causes of violence are more likely to be related to mental illness or drug or alcohol abuse (Rew & Ferns, 2005). At present, therefore, it is difficult to generalise from studies which examine the factors associated with violence. Nonetheless, a number of factors have been identified which appear to be associated with an increased risk of violence towards healthcare staff. As has been noted elsewhere, factors related to acts of violence in the workplace can generally be examined at the individual, organisational and environmental level, and it may be unwise to approach the issue without considering each of these (Beech & Leather, 2006).

In terms of the individual characteristics salient to patient violence, research has examined characteristics of both perpetrators and victims. From the perspective of the perpetrator, the risk of violent behaviour appears to increase in patients who are under the influence of drugs and alcohol (Schnieden & Marren-Bell, 1995), and the over-representation of these individuals in accident and emergency and psychiatry settings may be a factor in the high levels of violence found there (Rew et al., 2005). Similarly, patients suffering from mental illness are at increased risk of being involved in violent acts, with schizophrenia and mania particularly associated with violent behaviour (Duxbury, 2002). Profiling work has identified individual risk factors associated with perpetrators of violent

acts. These include being young, being male, having a history of violent behaviour and having a troubled childhood (Di Martino, Hoel, & Cooper, 2003).

Research has also examined this issue from the perspective of the victims of violence. Some evidence suggests that male staff are more likely to be involved in violent acts (Stephen, Joaquim, & Peter, 2004), possibly because they are more likely to get involved in situations where restraint is required (Vanderslott, 1998), although others have found no association between staff gender and violent behaviour (Wells et al., 2002). Various forms of training, used to provide the skills to diffuse potentially dangerous situations, have also been shown to lower instances of violence (see Beech & Leather 2006 for a review), although at the micro level instances of violence may be more common in staff who have received training (Whittington et al., 1996). This may be because these individuals are more likely to become involved in potentially dangerous situations, or because they undertook training as a result of an incident of violence. In terms of occupational groups, nursing staff are thought to be at particularly high risk of violence (Wells et al., 2002), as are staff working in Psychiatry and Accident and Emergency departments (Winstanley et al., 2004; Fernandes et al., 1999; British Medical Association, 2003). There is also some evidence to suggest that younger or less experienced staff are more likely to be the victims of violence in the workplace (Whittington et al., 1996). This may be because these groups lack the training or skills required to recognise or deal with potentially problematic situations (Grenade & Macdonald, 1995), because they report incidents more readily, or because some patients are antagonised by being treated by people younger than themselves (Whittington et al., 1996).

A number of environmental factors have also been implicated as risk factors for violent behaviour. Long waiting times appear to increase the risk of violent behaviour, probably because these contribute to frustration, which may in turn lead to violence (Jenkins, Rocke, McNicholl, & Hughes, 1998). The time of day also seems to be associated with violent acts, with more incidents occurring at

night, a possible product of the increased use of drugs or alcohol at this time (Schnieden et al., 1995). The association between environmental factors and patient violence have been of particular concern in the psychiatric literature, with overcrowding, seclusion and lack of privacy implicated as possible triggering factors (Nijman & Rector, 1999; Nijman, Campo, Ravelli, & Merckelbach, 1999), although this work is of dubious relevance outside of psychiatry. The adequacy of hospital security facilities acts as a buffer against incidents of violence experienced by healthcare workers (Jones & Lyneham, 2001).

Various organisational factors have also been implicated in contributing to acts of violence. There appears to be some evidence to suggest that decreased staffing levels and increased use of temporary staff are associated with high levels of patient violence, possibly because of increased levels of delay and frustration (James, Fineberg, Shah, & Priest, 1990), although the direction of causality remains unclear. Low quality team working has also been implicated as a risk factor for acts of violent behaviour (Estryn-Behar et al., 2008) whilst increased support from supervisors has been associated with lower levels of patient violence (Findorff, McGovern, Wall, Gerberich, & Alexander, 2004). A cross sectional study conducted with psychiatric nurses (Soares, Lawoko, & Nolan, 2000) reported that a diminished sense of autonomy and more negative attitudes towards work were positively associated with violence, although it seems equally as plausible that these outcomes would occur as a result (rather than being a cause) of incidents of violence.

### **4.3 Consequences of Workplace Bullying**

A number of survey studies have demonstrated associations between workplace bullying and a range of global mental and physical health problems in victims. These include increased levels of stress, burnout, anxiety, depression, negative affectivity, mental fatigue, hostile behaviour and somatic complaints (Hoel, Faragher, & Cooper, 2004; Einarsen et al., 1997; Zapf et al., 1996; Einarsen,

Matthiesen, & Skogstad, 1998; Quine, 1999; Quine, 2001; Kivimaki et al., 2003; Frone, 2000; Niedhammer, David, & Degioanni, 2006; Vartia, 2001) as well as lower levels of self esteem (Frone, 2000). Symptoms consistent with Post Traumatic Stress Disorder have also been revealed in victims of bullying, both through the use of clinical criteria (Mikkelsen & Einarsen, 2002; Matthiesen & Einarsen, 2004) and physiological measures (Hansen et al., 2006). Research has also examined the association between bullying and job satisfaction in victims. Work from outside of the healthcare field has revealed negative associations between self-reported bullying behaviour and job satisfaction (Lapierre, Spector, & Leck, 2005), whilst within the healthcare field, survey studies conducted within the NHS (Quine, 2001; Quine, 1999; Quine, 2003) and other European health services (e.g. Einarsen et al., 1998) have revealed similar associations.

Researchers in the management field have also shown some interest in the relationships between bullying and a number of behavioural outcomes in victims. These studies have mainly been conducted outside the healthcare field and often refer to the consequences of “abusive supervision” rather than of bullying per se. However, they offer a promising avenue for future work within the healthcare field. Cross sectional survey research with staff across a variety of industries has revealed a negative association between abusive supervision and levels of organisational commitment of staff (Tepper, 2000), and subordinates of abusive supervisors report using dysfunctional resistance tactics (such as ignoring) and constructive resistance tactics (such as negotiation) more often than non - abused staff (Tepper, Duffy, & Shaw, 2001). Abusive supervision is also related to diminished levels of organisational citizenship behaviour (performing tasks for the good of the organisation which may fall outside job descriptions and may not be rewarded), an association which may be mediated by the effect of perceptions of justice (Zellars, Tepper, & Duffy, 2002; Aryee, Chen, Sun, & Debrah, 2007). In a study examining the performance of automotive organisation workers, victims of abusive supervision showed diminished outcomes on supervisor and formal performance appraisal ratings, with the relationship mediated by the effect of

meaningfulness of work (Harris, Kacmar, & Zivnuska, 2007). Tepper (2007) provides an extensive review of abusive supervision research.

Much of the remaining research on the behavioural outcomes of bullying has concentrated on withdrawal behaviours such as absence from work and staff turnover. European survey research in Denmark (Agervold et al., 2004) Sweden (Voss, Floderus, & Diderichsen, 2001) and France (Niedhammer, Chastang, & David, 2007) has revealed increased levels of sickness absence in victims of bullying in general workplace settings. This association has also been demonstrated in healthcare employees in a Finnish study (Kivimaki, Elovainio, & Vahtera, 2000). Prospective designs have also been used to demonstrate this link, with a study of working women in Sweden (Vingard et al., 2005) revealing that reported bullying was related to increased instances of long term sickness absence in the following 3 years. Whilst survey research has also sought to make the link between bullying behaviour and staff attrition, at present much of this work has investigated intention to quit rather than actual quitting behaviour, although associations between behavioural intentions and quitting behaviour have been demonstrated in healthcare staff (Irvine & Evans, 1995). Survey research within the NHS has revealed that bullying is associated with intention to quit in healthcare staff (Quine, 2001; Quine, 1999), whilst bullying is reported by midwifery staff to be one of the major factors in their decisions to leave their posts (Ball et al., 2002).

Victims of workplace bullying are also more likely to seek help for physical and mental health problems (Rospenda, 2002) and exhibit increased use of alcohol and a variety of prescription and non-prescription drugs, including stimulants, analgesics, antidepressants and tranquilizers (Traweger, Kinzl, Traweger-Ravanelli, & Fiala, 2004; Richman, Shinsako, Rospenda, Flaherty, & Freels, 2002; Richman et al., 1999; Appelberg, Romanov, Honkasalo, & Koskenvuo, 1993).

#### **4.4 Consequences of Patient Violence**

Much research has examined the social and psychological effects of patient violence towards healthcare staff, with many studies suggesting that instances of violence can result in a host of negative bio-physiological, cognitive, emotional and social effects (Needham, Abderhalden, Halfens, Fischer, & Dassen, 2005). Survey research has revealed that instances of patient violence can lead to increased levels of anxiety (Fry, O'Riordan, Turner, & Mills, 2002), stress (Nachreiner, Gerbrich, Ryan, & McGovern, 2007), burnout (O'Connell, Young, Brooks, Hutchings, & Lofthouse, 2000; Farrell, 1997; Estryn-Behar et al., 2008), depression (Jackson et al., 2002), sleep problems (Jackson et al., 2002), and symptoms of PTSD (Flannery, Hanson, & Penk, 1995).

In terms of staff behaviour, survey research has demonstrated that workplace violence is associated with increased withdrawal behaviour such as staff attrition (Nabb, 2000), absenteeism (O'Connell et al., 2000; Farrell, 1997) and intention to quit (Snyder, Chen, & Vacha-Haase, 2007) or change employer (Estryn-Behar et al., 2008). Healthcare workers who are victims of violence report that the violence negatively affects the relationship between the patient and the carer (Suserud, Blomquist, & Johansson, 2002). Self - reported avoidance (Levin, Hewitt, & Misner, 1998) and fear (Fernandes et al., 2002) of patients are further reported behavioural consequences of violence. Incidents of patient violence are also associated with decreased levels of job satisfaction (Snyder et al., 2007; Fernandes et al., 1999), and increased levels of smoking and alcohol use (Arnetz, Arnetz, & Petterson, 1996).

#### **4.5 Interventions to Reduce Workplace Bullying**

Recent Health and Safety Executive reviews of the workplace bullying literature noted that there are no formal evaluations of intervention programmes to reduce workplace bullying (Beswick, Gore, & Palferman, 2006; Rick, 2002). Unfortunately, this still appears to be the case. However, a number of

recommendations have been made in the academic literature as to what constitutes “good practice” in anti-bullying policy (e.g. Rayner & Mclvor, 2006; Di Martino et al., 2003; Rayner, Hoel, & Cooper, 2001). These tend to emphasise some combination of the roles of training and development, staff selection, addressing environmental problems, implementing formal bullying policies and implementing awareness campaigns (e.g. Cartwright & Cooper, 2007).

A number of professional bodies have developed sample policies and sources of advice for organisations and their staff to deal with bullying. Both UNISON (2003) and ACAS ([www.acas.org.uk](http://www.acas.org.uk)), for example, provide information of this sort. The British Medical Association advocates the use of a zero tolerance approach to bullying (British Medical Association, 2006). This should include the development of a policy to deal with bullying, raising awareness of the issue, providing staff training in the recognition of bullying and providing management training to enable effective performance. The promotion of a climate of openness with both formal and informal routes for complaints to be made is also a central feature of this approach, as is the provision of support for both the victims and those accused of bullying. Other healthcare bodies providing information of this type include the Royal College of Nursing (Royal College of Nursing, 2005d), who provide advice for managers on how to deal with bullying, a model policy, and advice for staff (Royal College of Nursing, 2005b) and students (Royal College of Nursing, 2005a) on what to do if they experience bullying. NHS Employers also provide a model bullying and harassment policy for use by NHS trusts ([www.nhsemployers.org](http://www.nhsemployers.org)).

Survey research by the Chartered Institute of Personnel and Development (CIPD) with employees from a range of sectors revealed that despite 83 percent of the surveyed organisations having a formal bullying and harassment policy in place, an average of 21 days per year were still spent on dealing with grievance and disciplinary cases relating to bullying (Chartered Institute of Personnel and Development, 2003). This has prompted some to suggest that most current

bullying and harassment policy is failing as a means of primary intervention (e.g. Beswick et al., 2006), and it is clear that more work is required in this area. In particular, research should be directed towards the design and evaluation of evidence based interventions which make use of the research findings on the organisational antecedents of bullying behaviour (ibid).

#### **4.6 Interventions to Reduce Patient Violence**

The management of patient violence has been the focus of a number of intervention studies within the academic literature. A report published in 2003 showed that 86 percent of NHS trusts have a formal policy on managing violence and aggression (National Audit Office, 2003), and methods of intervention used within the NHS have included increased use of security measures (such as CCTV and panic buttons), provision of counselling services for individuals who are victims of violence, and the redesigning of public areas to make a more pleasant environment. However, it appears that there is little formal evidence for the effectiveness of these methods (see National Audit Office, 2003, for a review). Although an integrated organisational perspective is often advocated in dealing with patient violence, it has been recognised that conflict and aggression management training is the primary element of such an approach (Beech et al., 2006). In a review of this type of training, Beech et al. (2006) found that whilst a few studies have reported positive effects of training on outcomes such as incident rates and knowledge, most training schemes remain unevaluated. The authors note that “while the call from the literature to provide training is virtually unanimous, there is a less compelling position with regard to the objective justification for training” (p. 38). Likewise, the National Audit Office note that whilst all NHS trusts offer some sort of violence training, there is little evidence available in terms of effectiveness (National Audit Office, 2003).

In an effort to deal with the problem of patient violence, the government in the United Kingdom launched the “NHS Zero Tolerance Zone Campaign” (Department of Health, 1999), a major initiative with the aims of informing the public that violence is unacceptable, informing NHS staff that violence is not tolerated and increasing staff awareness and reporting. This was to be achieved through the use of a number of strategies, including educational interventions. A further initiative, “Working together” (Department of Health, 1998), set additional targets for reporting systems and the goal of reducing reported violence by 20 percent by 2002, although only a fifth of NHS trusts actually hit the targets (National Audit Office, 2003). This failure has been attributed to increased reporting levels, longer waiting times and increased patient expectations.

#### **4.7 Conclusions**

Although the evidence appears to be building towards an understanding of the antecedents and consequences of patient violence and staff bullying in healthcare, at present the evidence is generally of low methodological quality and almost entirely cross-sectional in design. Therefore, despite many studies which purport to examine the antecedents or consequences of these behaviours, conclusions cannot usually be drawn regarding the direction of causality. Whilst a number of studies of the antecedents of bullying have demonstrated links between features of the organisation or the personalities of the individuals involved and bullying behaviour, most of this research has taken place outside of the healthcare literature. Given the apparent high incidence of bullying in the healthcare sector, it may provide a useful setting in which to investigate these issues further. Much of the evidence regarding the factors associated with patient violence in healthcare is centred on Accident and Emergency and Psychiatry settings, where the causes of the behaviour may be specific to certain underlying factors. Researchers in the area (e.g. Whittington et al., 1996) highlighted the lack of interest outside of these settings some time ago, and unfortunately, this largely remains the case. Again, given the apparently high

prevalence rates across many different healthcare settings, it would appear that further work is required in order to establish which factors are salient to instances of violence towards healthcare staff in general medical settings.

## **5. LINKS TO QUALITY OF CARE**

### **5.1 Conceptual Issues in Quality of Care**

The definition and measurement of “quality of care” in healthcare has been the subject of academic debate for many years. Most current conceptualisations of quality of care refer in some fashion to Donabedian’s (1988) systems-based framework of structure, process and outcome. “Structure” refers to the organisational factors defining the health system, such as human and organisational resources, whilst “process” refers to the interaction between users and the system, and has often been broken down further into “technical” care (the clinical application of care) and “interpersonal” care (the interaction of carers with users). “Outcome” refers to the consequences of the interaction between the system and its users, and may include health status as well as user evaluation of care (Campbell, Roland, & Buetow, 2000). An important subset of quality of care is “patient safety”, a term which has rarely been defined in a clear fashion but is often used with reference to the reduction of harm caused to healthcare users (Vincent, 2006).

Much debate has also surrounded the application of these constructs to the assessment of quality of care. Structural measures alone are rarely good indicators of quality, whilst the use of outcome measures is complicated by the numerous external factors involved as well as the possible delays between care and outcome. Process measures are most often appropriate for the measurement of quality (Brook, McGlynn, & Shekelle, 2000; Lilford, Brown, & Nicholl, 2007). Feinstein (2002), amongst others, argues that the systems-based approach has rather neglected the “care” component of “quality of care”, since many current measures of quality focus on clinical outcomes or technical aspects of the process of care. Therefore, studies which purport to be measuring

“quality” may in fact be measuring “performance”. Factors such as the extent of shared decision-making and the provision of appropriate information to patients have often been ignored, but are argued to be important aspects of quality of care.

It is important to note that whilst a review of the vast literature that exists in the areas of patient safety and service quality is beyond the scope of the current paper, it represents a huge (and as will be seen, largely untapped) resource for researchers seeking to link psychological or behavioural factors in the healthcare workforce to the quality of care experienced by patients.

## **5.2 Links between Bullying, Patient Violence and Quality of Care**

Unfortunately, research evidence which links the psychological and behavioural outcomes of bullying and patient violence to the quality of care provided to patients is relatively sparse at present. Furthermore, researchers have often failed to examine the issue of quality in an objective fashion or with any reference to the broad literature that exists on the subject, so that much of the evidence refers to technical measures of quality. However, some evidence is building which points towards an association. In particular, studies have suggested that stress, burnout, depression, job satisfaction and drug or alcohol use in healthcare staff (which have all been linked to both patient violence and bullying) may be associated with some aspects of quality of care. Similarly, a body of work is developing to suggest that staffing levels in hospitals are associated with various clinical outcome measures. The remainder of this section will describe some of these studies in more detail.

A number of researchers have attempted to highlight the link between stress in healthcare staff and the quality of care received by patients. Arnetz and Arnetz (2001) suggest that patient violence is an extreme stressor which has a negative effect on staff attitudes towards work and patients. The authors present findings from a questionnaire study conducted with patients and staff at a single hospital,

with regression analysis showing that violence experienced by healthcare staff is associated with lower patient ratings of quality of care. Whilst victims of patient violence have reported negative effects on their relationship with patients (Suserud et al., 2002), increased patient avoidance behaviour (Levin et al., 1998) and increased fear of patients (Fernandes et al., 2002), little evidence exists at present to link these factors to quality of care in an objective fashion.

The relationship between stress and job performance has, in fact, long been a point of debate in the wider field of organisational behaviour. Whilst some evidence supports an “inverted U” relationship between the variables, whereby high or low levels of stress lead to weak job performance, other studies have supported both positive and negative linear relationships (see Muse, Harris, & Field 2003). Within the healthcare literature, others have shown that nurses’ subjective stress and depression are related to both interpersonal (e.g. sensitivity and consideration) and cognitive (e.g. concentration and composure) measures of quality of care (Motowidlo, Packard, & Manning, 1986). In a study of doctors, 82 of the 225 who filled out an anonymous questionnaire reported that “symptoms of stress” (such as tiredness and the pressure of overwork) had compromised patient care (Firth-Cozens & Greenhalgh, 1997). Effects on patient care included lowered standards of care, the expression of anger, and in two cases, mistakes which led to the death of a patient. In a similar study, junior house officers were divided into two groups using the General Health Questionnaire. Those who scored three or more on the questionnaire reported making significantly more mistakes at work than those who scored below this threshold (Firth-Cozens & Morrison, 1989). The direction of causality in these studies, however, is an obvious point for debate. As well as having an association with quality of care, stress is also related to intention to quit (Fang, 1993) in healthcare staff.

Burnout has also been implicated as an important factor in quality of patient care. Williams, Savage, & Linzer (2006), for example, propose a model whereby the

demands of patients on over-stretched doctors result in stress and perceptions of depersonalization, lack of personal achievement and emotional exhaustion. If the coping mechanisms employed by doctors involve distancing themselves from patients then a vicious circle develops which may lead to lowered quality of care, as patients react by becoming more demanding. The link between burnout in healthcare staff and the quality of care provided to patients has been a relatively fruitful area for researchers. The emotional exhaustion component of burnout in individual nurses (Leiter, Harvie, & Frizzell, 1998; Vahey, Aiken, Sloane, Clarke, & Vargas, 2004) as well as behavioural health teams as a whole (Garman, Corrigan, & Morris, 2002) is negatively associated with patient-reported satisfaction with care. Burnout in nurses is also negatively associated with both self and supervisor rated job performance, measured in terms of knowledge of procedures, interaction with co-workers, dedication to work, quality of care provided to patients, and overall job performance (Parker & Kulik, 1995). In doctors, burnout is associated with an increase in self reported “suboptimal patient care practices” such as medication errors and failures to provide adequate information (Shanafelt, Bradley, Wipf, & Back, 2002). The “emotional exhaustion” component of burnout has also been shown to be negatively associated with supervisor-rated job performance in another study examining healthcare staff (Cropanzano, Rupp, & Byrne, 2003), although it is unclear which particular occupational group the participants in this study belong to. However, as Schaufeli and Enzmann (1998) note, correlations between burnout and job performance are often weaker for objective performance ratings (such as clinical outcome measures or supervisor ratings) than for self-rated performance, and a number of studies have shown no association between burnout and job performance at all. Indeed, one study of intensive care nurses showed that whilst both emotional exhaustion and depersonalization were negatively associated with self-rated performance, emotional exhaustion was actually associated with better performance when an objective measure (standardized mortality ratios) was used (Keijsers, Schaufeli, Blanc, Zwerts, & Miranda, 1995). A recent study, however, found evidence that depersonalization in doctors was

associated with lower patient satisfaction as well as longer recovery times in the patients they had cared for in the past year (Halbesleben & Rathert, 2008). Burnout is also related to increased intention to quit and (to a lesser extent) absence from work in healthcare staff (Parker et al., 1995; Schaufeli & Enzmann, 1998).

Lowered job satisfaction is a further correlate of bullying and patient violence by which the quality of care passed on to patients may be compromised. The positive correlation between job satisfaction and job performance has been demonstrated previously outside of healthcare, although the relationship is poorly understood and seems likely to be moderated by other variables (Judge, Thoresen, Bono, & Patton, 2001). A few studies have examined the relationship between job satisfaction in staff and patients' satisfaction with the quality of care they receive. In one study of 166 physicians and their 2620 patients, for example, regression analyses revealed that patients of the most satisfied doctors reported higher satisfaction with their care, both overall and for their most recent appointment (Haas et al., 2000). Similar correlations between job satisfaction in staff and patient satisfaction have been demonstrated in nursing staff (Weisman & Nathanson, 1985). Negative associations have also been demonstrated between job satisfaction and intention to leave, both within the healthcare sector (Shields & Ward, 2001; Lum, Kervin, Clark, Reid, & Sirola, 1998) and elsewhere (Lambert, Lynne Hogan, & Barton, 2001).

Organisational Citizenship Behaviour has also been implicated as being of relevance to quality of care<sup>1</sup>. It has been speculated that organisational citizenship behaviours are crucially important in occupations such as nursing which are characterised by high levels of task complexity, reciprocal interdependence and uncertainty. The "service quality behaviour" aspect of organisational citizenship behaviour may be of particular salience here, since in healthcare this may involve voluntary actions performed by staff with the aim of

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<sup>1</sup> See page 22 for a description of Organisational Citizenship Behaviour

increasing the quality of patient care (Lee, 2001). Diminished levels of organisational citizenship behaviours have been demonstrated in victims of bullying (Zellars et al., 2002; Aryee et al., 2007), although these studies were not conducted in the healthcare field. However, this work suggests that there may be useful potential for further research within the healthcare sector.

Whilst the evidence for an association between drug and alcohol use in clinical healthcare staff and impaired quality of care is limited, at least one study has shown an association of sorts. A survey study of doctors (Firth-Cozens et al., 1997) showed that a small proportion of respondents attributed incidents of lowered patient care which they had been involved in to the effects of alcohol.

The increased levels of sickness absence and staff turnover which are associated with instances of patient violence and bullying may also be associated with quality of care. This is because these types of withdrawal behaviours have implications for healthcare staffing levels. Within the NHS, for example, high levels of nursing staff turnover coupled with the difficulties in recruiting nursing staff have resulted in hospitals operating with high vacancy rates and becoming increasingly reliant on temporary staff (Shields et al., 2001; Finlayson, Dixon, Meadows, & Blair, 2002). Although commentators have noted that more data is required in order to prove that quality of care and patient safety in hospitals is to some extent dependant on the ability to recruit and retain nursing staff (Hayes et al., 2006; Clarke & Aiken, 2003), there is now a growing body of evidence from the UK and elsewhere to suggest that there is a significant association between hospital staffing levels and patient outcome measures. Lower staffing levels are associated with lower nurse-reported levels of quality of care (Aiken, Clarke, & Sloane, 2002), while higher staffing levels are associated with lower rates of urinary tract infections and pneumonia after surgery (Kovner & Gergen, 1998; Needleman, Buerhaus, Mattke, Stewart, & Zelevinsky, 2002), shorter hospital stays, and lower upper gastrointestinal bleeding, shock, cardiac arrest and failure to rescue (Needleman et al., 2002). Poorer nursing skill mix and higher

proportions of temporary positions are associated with higher mortality at 30 days (Estabrooks, Midodzi, Cummings, Ricker, & Giovannetti, 2005), while higher nurse to patient ratios are associated with lower mortality and failure-to-rescue. (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002; Rafferty et al., 2007). A related line of research has examined the associations between staffing levels and quality of care in nursing homes. Evidence has accumulated in this area to suggest that there appears to be a significant relationship between total staffing levels and quality of care, measured in terms of resident outcomes (e.g. functional decline and weight loss) and facility outcomes (e.g. mortality rates or complaint data). Bostik et al. (2006) and Lang et al. (2004) provide full reviews of the relationship between staffing levels and quality of care.

### **5.3 Conclusions**

Research evidence which links the psychological and behavioural outcomes of bullying and patient violence to quality of care is surprisingly sparse at present, and suffers from a lack of studies using prospective methodologies. However, it is clear that some promising research does exist in these areas. The next step for researchers may be to make use of the large body of work which has examined the measurement of quality in order to investigate possible associations in a more objective fashion.

## **6. GENERAL DISCUSSION**

The evidence reviewed in this paper describes the associations between bullying, patient violence, and a variety of organisational, psychological and quality of care measures. Unfortunately, many of these associations are poorly understood at present. This is in no small part because the evidence which currently exists in the areas is of weak methodological quality. The vast majority of studies described are based on cross sectional survey data, from which it is not possible to infer causal relationships. Therefore, the references made in the main body of this article to “antecedents” and “consequences” are based on theory rather than

empirically derived data. The areas of bullying and patient violence do not lend themselves to experimental research designs, and intervention studies or prospective designs are rare. Both areas are also fraught with conceptual difficulties which make the synthesis of research findings a complex task, and a lack of consensus over operational definitions and measurement problems has further confused the issue. Furthermore, very few studies have attempted to link bullying or patient violence directly to any measure of quality.

However, there are some tentative conclusions that can be drawn from the literature. Healthcare staff appear to be at increased risk of both bullying and patient violence when compared to staff from other industries. It also appears that these behaviours are associated with undesirable behavioural and psychological factors in victims, and that some of these are also associated with reduced levels of various measures of quality of care. Therefore, it is possible that bullying and patient violence in healthcare may be linked in some way to detrimental outcomes not only for staff, but also for patients. This link has been largely ignored in the literature thus far.

Clearly, bullying and patient violence are far from being the only characteristics of the healthcare workforce to be associated with adverse outcomes in staff or reduced quality of care (e.g. Michie & West, 2004). The framework outlined in this paper, therefore, should be viewed as part of a far larger and more complex set of organisational, psychological and behavioural factors which are associated with quality of care. The apparent scale of the problem of bullying and patient violence in the healthcare sector suggests that these behaviours are worthy of inclusion in this wider framework. Moreover, violence from patients, in particular, appears to be on the increase. Irrespective of whether the driving force behind this is a rise in awareness, an improvement in reporting systems or an increase in incidents, the results highlight an issue worthy of further investigation.

Since the interplay between the various factors which may link bullying and violence to quality of care is poorly understood at present, there is huge potential for further research. There are a number of areas where future research effort should be channelled. First, a useful body of cross sectional data now exists to describe what, theoretically, are referred to as the antecedents and consequences of bullying and patient violence. However, only through the increased use of prospective research designs will the issue of causality become clearer. Despite the obvious problems in conducting experimental research in these areas, there is scope for prospective observational research which tests the causal links between the antecedents, behaviour, and consequences. This type of research design may lend itself particularly well to bullying, where the antecedents of the behaviour appear to be related largely to features of the organisation. Research may involve the longitudinal assessment of a reorganisation programme or change of management within a healthcare organisation. Measures of quality of care may also be usefully incorporated into research designs of this type. Second, there is too little evidence for the effectiveness of interventions within the bullying and patient violence fields. Both of these behaviours appear to be harmful, at the very least, to the staff who are victims. The ultimate goal of research, therefore, must be to reduce the prevalence of these behaviours. In terms of patient violence, more evidence is needed to describe the effectiveness of interventions which are currently in use, such as aggression management training. In the bullying field, evidence for the effectiveness of interventions is extremely sparse, although the growing body of cross-sectional research may provide a good starting point in terms of intervention design. Finally, the research evidence which describes how psychological outcomes in healthcare staff are associated with the quality of care provided to patients is best described as sketchy. A greater quantity of work examining this issue is required. Researchers in the area must make use of the huge body of work examining the measurement of quality of care to ensure that this construct is conceptualised and measured in a systematic and objective fashion.

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