

Making healthcare safer: what is the contribution of health psychology?

While healthcare brings great benefits, all treatments, and many investigations, carry some risk. As patients we should be told of the risks of specific treatments but we are also at risk from failings in the healthcare system itself. Over the last 10 years there has been a deluge of statistics on medical error and harm to patients, a series of tragic cases of healthcare failure and a number of major government and professional reports on the need to make healthcare safer (Department of Health, 2000; Francis, 2013; Berwick, 2013). In this editorial we argue that health psychology has a potentially massive contribution to make to patient safety, highlight some notable contributions to date and outline some potential directions.

Understanding harm from healthcare

At its simplest patient safety can be defined as the ‘avoidance, prevention and amelioration of adverse outcomes or injuries stemming from the process of healthcare’ (Vincent, 2010 p31). Studies using review of medical records in many countries have found that between 8% and 12% of patients in hospital suffer an adverse event (unintended harm due to healthcare) with about half being judged to be preventable with current standards of care (de Vries, 2008; Vincent, 2010). Harms can include unwanted side effects of beneficial treatments such as complications of surgery, falls, pressure ulcers, and urinary tract infections associated with use of catheters. However harm can also occur because of failures to provide care appropriately which would include diagnostic errors and lost opportunities, ventilator acquired pneumonia, venous thromboembolism, malnutrition, delirium and many other problems (Vincent et al, 2014).

Making healthcare safer

A considerable number of interventions of different kinds have shown that errors can be reduced and processes made more reliable. Interventions such as computer order entry, standardisation and simplification of processes and systematic handover have all been shown to improve reliability, and in some cases reduce harm, in specific contexts (Schnipper, 2009; Vincent, 2010; Murphy, 2013). There are a small number of examples of interventions which have made a demonstrable impact on patient safety on a large scale, such as the introduction of the World Health Organisation Surgical Safety checklist. The surgical safety checklist ensures that the entire operating theatre team understands the patient, the surgical procedure

the equipment needed and that evidence based interventions such as antibiotic prophylaxis are reliably given. The checklist was introduced in eight countries worldwide studying 3733 patients before and 3955 patients after the implementation of the checklist; deaths were reduced by 47% (from 1.5% to 0.8%), and in-hospital complications by 36% (from 11% to 7.0%) (Haynes, 2008).

Contributions of health psychology

Kapur (2014) has suggested a number of areas where psychology has made or can make a major contribution to patient safety. These include diagnosis and decision making, organisational culture, improving compliance with rules and standards, understanding situational awareness, stress management and carrying out a ‘psychological post mortem’ after serious incidents. To illustrate the potential contribution of health psychology we discuss three areas in which health psychologists are particularly well placed to make a contribution.

Behaviour change of healthcare staff

Many studies have found that clinical staff, indeed people generally, struggle to perform basic procedures reliably; over time care can deteriorate to the point of becoming dangerous (Amalberti, Vincent, Auroy, & Saint Maurice, 2006). Changing health behaviours is a central element of the discipline of health psychology although most work has been oriented towards patients. However models used to predict the behaviour of patients can also been used to explain safety related staff behaviour. For instance, self-efficacy predicted taking dental radiographs and subjective norms predicted examining the feet of people with diabetes (Eccles et al, 2012; Presseau et al, 2014).

Interventions drawing on these theoretical models have been developed and tested. For example, one study used observation, feedback and action planning to produce increases in observed hand washing of hospital staff (Fuller et al., 2012). Adherence to standards may be susceptible to “drift” over time, as suggested in the general literature on fidelity to interventions (Bellg et al., 2004). We need a much better understanding of the factors that support good practice and those that lead to a deterioration in standards. A promising direction for future interventions is to alter the physical or social environment, so that it cues the behaviour in the health professional, rather than relying on them to remember in environments that already contain many competing demands for attention.

Enhancing teamwork

Surgery is the source of a high proportion of preventable adverse events. A decade ago most of these would have been considered unavoidable or ascribed, generally incorrectly, as due to poor individual practice. Studies of process failures, communication, teamwork, interruptions and distractions have now identified multiple vulnerabilities in systems of surgical care (Vincent et al, 2004). Many groups are now moving beyond the undoubted gains of checklists to consider the wider surgical systems and the need for a more sophisticated understanding of surgical teamwork in both the operating theatre and the wider healthcare system (Sevdalis et al, 2009; McCulloch et al, 2010).. Measures surgical teamwork have been developed which draw on psychological models of teamwork in a variety of settings; some of these approaches have been extensively validated and proved to be psychometrically robust (Sevdalis et al, 2009). These developments have laid the foundation for the development, assessment and evaluation of team training and the impact of surgical teamwork on patient outcomes (Mayer et al, 2015).

Briefings, checklists and other approaches tend to be treated as techniques which can be implemented in any setting and with any team. Psychological studies have shown that they are not a panacea and, according to how they are used, can be either a positive or negative influence on team performance. If used badly they can disrupt positive communications, reinforce professional divisions, create tension and perpetuate problematic cultures (Whyte et al, 2007).

Communication and the aftermath

The human cost of adverse events is considerable. Many patients suffer increased pain and disability from serious adverse events. They often also suffer psychological trauma and may experience failures in their treatment as a terrible betrayal of trust. Staff may experience shame, guilt and depression after making a mistake (Vincent, 2010). People's explanations of negative events in general, and in particular the way in which they attribute responsibility, affect their emotional adjustment (Timko & Janoff-Bulman, 1985). Continued search for answers and a strong sense of blaming others may be associated with poorer wellbeing (e.g. Hall, French & Marteau, 2003; Tennen & Affleck 1990), but there is surprisingly little research on this topic in the context of medical errors. An experimental study using vignettes demonstrated the importance of the quality of the relationship between patient and health care

provider in determining attributions of blame and responsibility (Lawton, Gardner & Plachcinski, 2010). Full disclosure of the reasons for a poor outcome is critical (Duclos et al., 2005), but the timing and nature of the disclosure needs to be very sensitively managed (Iedema et al., 2011). On the staff side a recent systematic review confirmed the scale of the problem and noted the absence of theory based research on the impact of such events on health care professionals (Sirriyeh, Lawton, Gardner & Armitage, 2010).

Discussion

Improving the safety and quality of care is a critical issue for healthcare in all countries and maintaining safety will become ever more under threat as financial pressures increase. New challenges will arise in the transition from hospital to community and home based care. We hope that this selective account of the field of patient safety and accompanying examples of the contributions of psychology and psychologists has shown the potential for much greater engagement and involvement.

We suggest that, while there are many examples of individual psychologists who have made important contributions, this has not yet translated into a broader disciplinary engagement. Health psychologists have devoted much more attention to patients and devoted much less attention to the potentially huge impact of studying and intervening with staff, clinical practice and organisations. We believe that there are considerable opportunities for health psychology to engage more closely with patient safety and, more importantly, that this would be of great benefit to both patients and staff. There are many ways that this might be achieved and we simply provide some initial suggestions:

- We have highlighted three areas of research and listed a number of others in which a psychological understanding would enrich both research and practice. Collaboration with clinicians in these areas would open new sources of funding, research and impact.
- Kapur (2014) has suggested that hospitals and other healthcare organisations should all employ one or more ‘human factors’ specialists to ensure that psychological knowledge informs work on safety, quality and organisational change.
- Psychologists providing a clinical service to specialist services in any area could expand their remit from supporting patients to a more general support and engagement with safety and quality initiatives.

- Health psychologists have models to understand the behaviour of people, and recent developments in changing behaviour should be applicable to health professionals in addition to their patients
- National policy development on patient safety and quality of care would be enhanced with more attention given to psychological knowledge.

Finally, a clarification. We are well aware that many psychologists are already working in these areas and already carrying out research on topics that are highly relevant to the safety and quality of care. Many are already engaged in the ways we describe. We are not suggesting that psychologists are somehow failing to respond to these challenges. Rather we see huge opportunities and parallel worlds that are not currently joined. We encourage health psychologists to seek out those working on safety and quality and vice versa.

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