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Technical rationality and the decentering of patients and care delivery: a critique of 'unavoidable' in the context of patient harm

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Abstract

In recent decades, debate on the quality and safety of healthcare has been dominated by a measure and manage administrative rationality. More recently, this rationality has been overlayed by ideas from human factors, ergonomics and systems engineering. Little critical attention has been given in the nursing literature to how risk of harm is understood and actioned, or how patients can be subjectified and marginalised through these discourses. The problem of assuring safety for particular patient groups, and the dominance of technical forms of rationality, has seen the word 'unavoidable' used in connection with intractable forms of patient harm. Employing pressure injury policy as an exemplar, and critically reviewing notions of risk and unavoidable harm, we problematise the concept of unavoidable patient harm; highlighting how this dominant safety rationality risks perverse and taken-for-granted assumptions about patients, care processes, and the nature of risk and harm. In this orthodoxy, those who specify or measure risk are positioned as having more insight into the nature of risk, compared to those who simply experience risk. Driven almost exclusively as a technical and administrative pursuit, the patient safety agenda risks decentring the focus from patients and patient care.

Introduction

Globally, regulators, clinicians and consumers have expressed concern for the scale and scope of harm to patients arising from healthcare (Waterson 2014). As a consequence, risk and risk management is a pervasive feature of administrative and professional discourses. In

these discourses attention is increasingly focused upon governing risk by monitoring breaches in safety systems and standardising clinical practice. Incident reporting has become central in attempts to improve patient safety and volumes of data are collected, with root cause analyses undertaken. As an example of the scale of reported patient safety incidents, since 2003 in the in the United Kingdom (UK), over ten million reports have been submitted to the National Health Service (NHS) National Reporting and Learning System (NRLS) (Donaldson, Panesar, & Darzi, 2014). Aligned with such reporting systems, a corpus of technologies (such as checklists, structured communication, scripted rounding and electronic alerts) have been implemented to govern risk of harm to patients. In healthcare, these safety and risk technologies are now deeply sedimented in managerial and professional discourses (Allen, Braithwaite, Sandall, & Waring, 2016).

At the centre of this burgeoning "safety" activity in healthcare is a privileging of a type of technical rationality that has claimed epistemic and moral authority (Travaglia, Robertson, Davidson, & Daly, 2016). This rationality assumes a linear cause and effect between human behaviours and latent system factors (Waring, 2009). In so doing, rationality fails to consider the often taken-for-granted meanings, underlying beliefs, and moral norms that constitute a culture of safe clinical practice. It is essential that nurses critically consider the dominant technical rationality of risk management and patient safety, in particular, the propensity for assumptions that frame systems of care in terms of linear relationships, and therefore amenable to re-engineering.

In what follows, we critically examine the concept of risk and unavoidable patient harm, how harm has been defined in healthcare, and by whom. Employing pressure injury policy as an exemplar, the assumptions and exclusions of the dominant safety paradigm are foregrounded

and the concept of "unavoidable injury" is critically examined. In focusing attention upon notions of unavoidable harm, our aim is drawn to the administrative and professional dynamics that have sustained a discourse that may be as much a part of the problem, as the solution. In so doing, we highlight how the concept of unavoidability has become a linguistic device able to enhance the standing of various administrations whilst avoiding scrutiny of clinical and organisational practices.

The evolution of modernist healthcare safety paradigms

In the 1960's administrative interest in safety focused attention to issues of clinical variation and clinician error, laying the foundation for a new orthodoxy on quality and safety (Waring, Allen, Braithwaite, & Sandall, 2016). In this orthodoxy, risk and harm was framed as something to be measured and monitored through administrative systems, and then redesigned through the application of scientific knowledge (Donabedian, 1988; Leape & Reason, 2000a; Reason, 2000b). Reflecting this tenet, at the forefront of contemporary international efforts to foster patient safety has been attention to human factors and designing out risk and error (Carayon, 2016; Vincent, 2012).

In contrast to these recent developments, in the past, responsibility for patient wellbeing and risk minimisation was the realm of clinicians. Consideration of the nature and extent of patient harm was largely confined to professional discourses. Consequently, public and bureaucratic awareness or debate about the scope and scale of risk to patients was limited. As an example, Fear (2015) cites the professional containment of information on patient harm from anaesthesia. In the 1950s concern was raised in medical journals that death rates from anaesthesia were 'of sufficient magnitude to constitute a public health problem', with the risk of harm greater than that of poliomyelitis epidemics (Beecher & Todd, 1954 , p32).

However, this issue was debated largely within the boundaries of professional discourses, and the extent of avoidable harm from anaesthesia had little public disclosure. Over time, as safety problems have come to the forefront of administrative systems, patient safety has transitioned from the primary jurisdiction of clinicians. The emerging safety paradigm has positioned re-organising healthcare and re-designing clinicians' work as central to assuring patient safety. This process has been largely driven and overseen by technical experts and administrators (Braithwaite, Sandall, & Waring, 2016). Coupled with this shift, a rise in consumer participation and autonomy has seen consumers increasingly more active in decision making and in raising concerns about healthcare safety and quality (Hutchinson & Jackson, 2014).

Another powerful development in the evolution of safety paradigms has been the development of technical systems to monitor and investigate errors. These systems open up for administrative and public scrutiny, matters that would have once remained within the jurisdiction of professional peer review processes (Iedema et al., 2006). The emergence of these administrative and technical safety paradigms has given rise to safety discourses that are deeply enmeshed in managing risk. These systems allow for organisational and public scrutiny of the dimensions and the nature of risk. The dominance of administrative and technical safety paradigms in healthcare, has translated to moral imperatives and obligations that are not always aligned to that of nursing (Mercer and Flynn, 2017). It has been argued that restructuring to promote safer systems of healthcare has become more about implementing austerity measures, than reducing the incidence of avoidable patient harm (Burke, Ng & Woplin, 2015).

Against this modernist and technical backdrop and operating at the intersection of policy and lived experience, nursing's moral imperative remains to speak truth to power (Falk-Rafael 2005). It is crucial that the nursing profession continue to critique the effects of modernist and technical paradigms, and their impact on patients, nursing and nurses (Castledine, 2010). For nurses, this is important, not only because nurses are the largest sector in the healthcare system and plays a pivotal role in delivering patient care, but also because nursing is central to safe and effective care delivery (Burke et al., 2015). It is particularly important that the pervasive language of safety and its potential to normalise certain forms of harm are foregrounded. The emergences of discourses, technologies and strategic ambitions around safety provide powerful metaphors that convey meaning, and over time, have shaped knowledge, beliefs and the conduct of professions (Holmes, Murray, Perron & McCabe, 2008). In this context, the notion of unavoidable harm has emerged in safety and nursing discourses. The lexicon of unavoidability and the associated ideology warrants more critical attention.

Safety discourses and the language of risk and unavoidable harm

Making visible risks to patient safety requires an agreed language and definition of risk. Whereas mathematical notions of risk refer to the probability of an event taking place (Sobo, 2005), and in research clinical significance is established on the basis of probability of harm or benefit (Cochrane, 2015), the Institute of Medicine defined healthcare associated risk in terms of preventable adverse events attributable to error (Kohn, Corrigan, & Donaldson, 1999). Highlighting the variability of how preventable patient safety incidents have been defined, Nabhan and colleagues (2012) noted that, in 127 manuscripts systematically reviewed, a total of 132 definitions of preventable harm were identified. The more common definitions of preventable incidents in this review were "the presence of an identifiable

modifiable cause (58/132 definitions, 44%), reasonable adaptation to a process will prevent future recurrence (30/132, 23%)"; and "adherence to guidelines (22/132, 16%)" (Nabhan et al., 2012 p,128). Hogan and colleagues applied an alternative metric, defining avoidable patient deaths as those where an expert panel established a 50% probability that the deaths were avoidable (Hogan et al., 2012). Clearly, the emerging modernist discourse on patient safety is grounded in variable assumptions about preventability and error. A fundamental premise is that patient safety incidents are avoidable when they have causes that can be modified to avoid future recurrence.

Although widely espoused in policy and regulatory agendas, the goal of avoiding preventable harm is often framed as aspirational, rather than attainable. Pragmatic stances espouse that, in "such a risky and complex endeavour as healthcare, there will always be an element of avoidable harm" (Walsh, 2013 p, 40). Other claims of unavoidability arise from the economic cost benefit trade-offs" of doing business" (Donaldson, 2015 p,1). With economic frameworks in the safety lexicon redefining risk reduction in terms of reducing risk to as little as is reasonably practicable. In this context, risk is tolerable if the cost of prevention exceeds the monetary benefit (Hopkins, 2015). This concept of acceptable risk has seen the language of risk in clinical standards and guidelines evolve to include of notions of acceptable, unavoidable or tolerable t risk of harm to patients (Stavert-Dobson, 2016).

Attempts to provide clarity on incidents that are deemed avoidable, and differentiate them from those considered unavoidable, has resulted in the emergence of the "never event" in healthcare lexicon (Mehtsun et al., 2013). This label has been applied to a group of incidents that occur repeatedly and result in considerable patient morbidity and mortality; but are considered highly avoidable and should therefore, never occur. In the United States (US)

there are now 29 incidents considered never events. Whereas in the UK, the NHS specifies 25 incidents as never events (NHS, 2012). The range of incidents under the umbrella of never events includes more serious and less common events, such as leaving surgical instruments inside patients, or operating on the wrong anatomical site. In some jurisdictions, the more severe grades of pressure injury are also considered never events. Reflecting the growing and increasingly polarised debate on never events, and increasing clinician disquiet on pressure to completely eliminate these incidents, the list of never events has been modified in some states of North America to differentiate never events that are usually preventable or able to be clearly identified and measured (Duchman et al., 2016). Thus, an element of unavoidability has been introduced into the concept of never events. As safety policies and paradigms have unfolded, attempts to avoid risk have become enmeshed in the complexities that it seeks to avoid. The more risk has been framed as avoidable; the more attempts have been made to foreground unavoidable risks.

Importantly, never events are not infrequent. Reflecting the scale of these events, 4000 surgical never events were reported in 2013 in the US (AHRQ, 2015). In the US, growing concern for never events has resulted in removal of reimbursement by the Centers for Medicare and Medicaid for the costs of 11 hospital acquired never events (Attenello et al., 2015). Similarly in Australia, health care insurers have announced they will no longer reimburse for a number of preventable hospital acquired conditions (Jackson, Hutchinson, et al., 2016). It is anticipated that, over time, up to one quarter of hospitals will be subject to penalty for the occurrence of these events (Meddings, et al., 2015). This change in policy has driven forward a growth in quality assurance activities, without any clear evidence emerging of reduced hospital-acquired harm for patients (Bae, 2017).

A critical lens on the concept of unavoidable harm

A repeating thread in the literature on incident mitigation in healthcare is that, whilst aiming for zero harm is widely supported, some level of patient harm is unavoidable. In the nursing literature little consideration has been given to the forms of technical rationality and moral enterprises that mandate a focus on safety, while at the same time, tolerating harm to some patients by positioning certain adverse events as unavoidable. In what follows, the notion of unavoidable harm is critically reviewed, with unavoidable pressure injury employed as an illustrative exemplar.

The notion of unavoidable pressure injury

The notion that some pressure injuries are unavoidable has been given growing prominence in the nursing lexicon. Guidelines on what are considered preventable pressure injury provide a broad interpretation of the unavoidability of these injuries (Jackson, Hutchinson et al., 2016). One expert position statement identifies that these injuries occur in the absence of assessment or intervention (NHS, 2015). Whilst another expert consensus view is that, unavoidable pressure injuries are those that occur in situations where the patient's clinical condition is such that pressure cannot be relieved or sufficient perfusion cannot be attained to prevent tissue injury (Black et al., 2015). Highlighting the variability of interpretations of unavoidable pressure injury, in one study in the US, it was identified that around 40% of pressure injuries were deemed unavoidable (Levine and Zulkowski, 2015). This is contrasted with reports from NHS Trusts, which suggest that 57% - 66% of pressure injuries were unavoidable (Downie et al. 2013; Downie et al. 2014). Further evidencing notions of unavoidable injury, a measurement instrument has been developed and tested for identifying unavoidable hospital acquired pressure injury (Pittman et al. 2016).

Whilst pressure injuries among particular patients groups are increasingly being defined as unavoidable, there is also considerable opinion regarding the reporting of pressure injury. In the NHS, the majority of institutions report category 3 and 4 pressure injury as serious incidents requiring investigation (SIRI) (Coleman et al. 2016). Nonetheless, expert opinion has contested whether all category 3 and 4 pressure injury should be reported as serious incidents, contending that the burden of investigation may be too onerous and offer little organisational or clinical benefit (TVS no date). This position contrasts sharply with the position in the US of Medicare and Medicaid, which has not reimbursed hospitals since 2008 for hospital-acquired stage 3 and 4 pressure injury. In the US funders have taken the view that these pressure injuries are predictable and are reasonably able to be prevented (Centers for Medicare and Medicaid Services, 2007). It is clear that the notion of unavoidable pressure injury is widely held, yet also contested. There is little evidence that patients and clinicians agree on what constitutes preventable harm, or whether providers and institutions should be accountable for harms framed as unavoidable (Jackson, Wilson, and Hutchinson 2016).

The informal discourse of unavoidable as unreported incidents

After decades of effort to mitigate patient risk, even in environments where there are well established incident reporting systems, most incidents continue to go unreported (Donaldson et al., 2014). In the UK, incidents deemed to have no, low, or moderate harm to patients are voluntarily reported, with reporting of patient deaths due to incidents only mandated since 2010 (Donaldson et al., 2014). The limited nature of incident reporting was highlighted in an investigation into the association between incident reports and events recorded in medical records. This study reported that only 3.6% of adverse events were captured through formal incident systems (Christiaans et al., 2011). Globally, it has been suggested that somewhere in the order of up to 96% of patient safety incidents go unreported (Michel, 2003). This

discretionary reporting of incidents risks perpetuating informally invoked thresholds and interpretations of what is deemed an unavoidable incident.

Highlighting continued under reporting of pressure injury, a recent stratified random sample of patients from NHS Trusts (n=2239) reported high levels of under reporting of pressure injury in incident report systems (Smith et al., 2016). In this study, 34% of the sample identified in the audit to have a PI were not captured in formal reporting systems. This discourse is further evidenced in reports clinicians fail to listen to the concerns of patients about risk of harm from pressure injury (Nixon et al., 2015). In stark contrast to the discourse, which minimises harm from lower grade pressure injury, pain at the pressure area site is experienced prior to the occurrence of category 1 and 2 injury (Nixon et al., 2015), with this pain reported as independently predictive for the development of severe categories of injury (Nixon et al. Thus, whilst clinicians normalise lower grade pressure injury as insignificant, for patients, these injuries are highly significant, painful and predictive of further harm.

Importantly, evidence confirms that patients are able to accurately identify adverse events at similar rates to those reported from studies employing expert panel review of medical records (Vincent & Davis 2012). Despite this accuracy in identifying adverse events and the presence of "open disclosure" policies, patients harmed or placed at risk of harm report clinician withdrawal and a "wall of silence" when concerns are raised (Braithwaite et al., 2016, p 7). There are repeated reports that clinicians are not receptive to active patient involvement, and patients are actively discouraged from raising concern (Bismark et al. 2006; Harrison et al. 2016). In the same vein, public inquiries into large scale failures in healthcare have repeatedly identified how patient and carer concerns are silenced or marginalised (Francis, 2013; Walsh, 2013).

The invisibility of the patient perspective

A number of consumer groups and the World Health Organisation (WHO) patient safety program have highlighted the role of patients in improving safety. Importantly, research has identified that patients do not see risks in the same way as clinicians (Christiaans-Dingelhoff et al. 2011; Kaboli et al. 2010). Highlighting the significance of involving patients in defining harm, a study investigating harm from the perspective of patients and their surrogate decision makers, revealed that patient definitions of avoidable harm differed from conventionally defined medical error (Fisher, Ahmad, Jackson and Mazor 2016). In this study, participants identified avoidable harms that were unlikely to be acknowledged, or be the main concern for nurses. Similarly, others have reported patients do not feel unsafe only in the face of errors, but also when they perceive service quality is poor or staff are unresponsive to their needs (Kenward, Whiffin and Spalek, 2017). It is not known whether patients are concerned with the same risks that are the focus of risk management programs and administrative priorities (Sobo, 2005). In the safety orthodoxy, those who specify or measure risk are positioned as having more insight into the nature of risk, compared to those who simply experience risk

The marginalisation and exclusion of patient perspective in risk prevention discourses, is argued to lead to a tolerance of lower standards or expectations for particular groups, such as older people at risk of pressure injury, people with learning disabilities (Tregelles, 2014) and those experiencing debilitating side effects from psychiatric medications (Wand, 2013). Foregrounding the notion of unavoidable risk of harm in nursing practice, Saiani et al (2008) reported that nurses perceived factors such as multiple disease interactions, refusal of care and limited monitoring of care provided in the community for older people with multiple long term health problems as unavoidable.

Employing pressure injury prevention as an exemplar, the patient perspective is largely invisible from policy formulation, theoretical models and research on prevention. Highlighting this absence, a number of systematic reviews fail to identify patient involvement as a key component of prevention (Gorecki et al. 2009; Gorecki et al. 2014; Sullivan and Schoelles 2013). Similarly, theoretical models of pressure injury development acknowledge patients only in terms of physiological and biomechanical susceptibility or risk (Coleman et al. 2013; García-Fernández et al. 2014). In addition, quality improvement standards do not include domains relating to patient involvement or patient perspectives on pressure injury prevention (Padula et al. 2014). One domain in a pressure injury quality of life framework includes participation, but participation is defined in terms of social isolation, rather than active involvement in prevention or management of pressure injury (Gorecki et al. 2013). Moreover, when expert consensus has been employed to derive standards and theoretical frameworks, patients are not included in the panel as experts (Coleman et al. 2013; García-Fernández et al. 2014).

The invisibility of "problems of care" in safety discourses

Two of the biggest themes of the Mid Staffordshire inquiry were the need for more transparency and to give patients more voice (Walsh, 2013). In the wake of this event, concern has been raised that adverse event and patient incident reporting systems focus upon technical and biomedical failures (Jackson et al., 2016). These systems overlook failures in fundamental aspects of care processes - such as missed nursing care. Internationally, there is considerable evidence regarding the extent of missed or rationed nursing care (Jones, Hamilton, and Murry 2015; Papastavrou, Andreou, and Efstathiou 2014). Yet, the risk of missed nursing care remains largely unacknowledged in the orthodox safety discourses.

Even though failure to provide nursing care may lead to harm, or contribute to adverse events, the notion that risk of harm does not extend to incidents such as failing to provide hygiene, nutrition or hydration, renders these care omissions and invisible or insignificant within extant safety discourses.

Analysis of mortality and morbidity data from the UK NHS provides further insight into how "problems in care" can be informally framed as unavoidable. In one large scale investigation into mortality data, attention was drawn to widespread care failures. However, these failures in the delivery of fundamental nursing care went largely unreported, or were reported, but the scale and significance of the failures was not acknowledged (Francis, 2013; Walsh, 2013). This suggests that the positioning of "problems of care" as insignificant or marginal in safety discourses places patients at risk of significant harm.

Risk tolerance in marginalised patient groups

The stark reality is that perceptions of (un)avoidability can limit scrutiny of incidents. There is evidence that harm to patients can be construed differently in different care environments. For people with disability, incidents leading to avoidable harm are not well recognised, with failure to provide care leading to harm poorly identified for this group of patients (Levine & Zulkowski, 2015). Patients who are not readily able to verbalise risks, such as those with aphasia, are more likely not to have adverse events documented despite being at increased risk (Hemsley, Wernick & Worrall, 2013). Moreover, in environments where providers are penalised for hospital acquired conditions, such as pressure injury, the concept of unavoidability may be employed to limit access for high risk patients.

Additional examination of the pressure injury exemplar, provides evidence of marginalisation of particular patient groups due to perceptions of risk. In the field of pressure injury, the current strategies for skin assessment (for example) are largely premised on the assumption of whiteness, and so the needs of persons from Black and Minority Ethnic (BME) communities are not well served by current assessment measures (Oozageer Gunowa, et al,, in press. In the US, analysing inpatient outcomes over a two year period, Duchman et al., (2016) reported that patient demographics such as black race, age and female gender predicted hospital acquired conditions (including pressure injury) following total joint arthroplasty. The historical failure in the pressure injury discourses to examine and acknowledge this risk, represents unavoidability as marginalisation. Further highlighting the complexity of notions of pressure injury avoidably, Sullivan (2012) argues that in the spinal unit, these injuries are given a moral dimension. Pressure areas are seen as a type of 'self-neglect' by patients rather than a 'body-neglect' by clinicians. The implication being "that the individual who has the pressure sore feels sorry for her/himself; that s/he is just plain lazy, incompetent, a no-hoper, wants attention, can't hack it, is giving up" (Sullivan, 2012 p.38).

Conclusion

Our analysis illuminates how the concept of safety has evolved into two incommensurable fields. A mechanistic and rational concept of safety that foregrounds aspects of risk and harm that fits within biomedical confines and is amenable to technical intervention. And a richer contextualised concept, which foregrounds patient concerns, justice and moral and political imperatives. Feenberg (1992) notes that in the wake of the scientific and technical revolution, no persuasive way has been found to unite the two worldviews of rationality and experience. This is more than a theoretical concern. As the case of the dominant orthodoxy

in healthcare safety illustrates, patient experience is disconnected from the technical advance of defining what has been deemed unavoidable harm.

Marcuse (1982), Heidegger (1977), Foucault (Burchell, Gordon, & Miller, 1991) and Bourdieu (1977) have each theorised the way in which individuals in modern society have "become little more than objects of technique" (Feenberg, 1992 p, 3). According to these scholars, technical rationality is pervasive, generating apparatus and dominative rationality (Marcuse, 1982). The persuasive language and technologies of patient safety, risk reduction and incident prevention has enmeshed nursing in its strategic ambition. Rarely foregrounded in the technical rationality of safety discourses, is the view that risk is not an objective, impartial or value-free concept (Jackson et al., 2016). Our conclusion is that, the concept of risk and unavoidable harm cannot exclude moral ideas and politics from its calculations (Douglas, 2013). For nursing, the pervasive nature of this technical rationality risks privileging administrative priorities and decentring the moral imperatives of nursing care from the patient safety agenda.

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