

Compassionate containment?

Balancing technical safety and therapy in the design of psychiatric wards

Authors: Sarah Curtis¹, Wilbert Gesler⁴, Victoria Wood¹, Ian Spencer², James Mason³,
Helen Close², Joseph Reilly²

1. Department of Geography, Durham University
2. Centre for Integrated Health Research, Wolfson Research Institute for Health and Wellbeing, Durham University
3. School of Medicine, Pharmacy and Health, Durham University
4. Emeritus Professor, University of North Carolina, Chapel Hill, NC, USA

Key words

England, psychiatric hospitals, mental health care, hospital design, risk governance, technical safety, surveillance, therapeutic landscapes

Acknowledgments

The research reported here forms part of a larger project funded by the National Institute for Health Research, UK, entitled *ADVANCE: Evaluating the implementation of a new psychiatric inpatient facility, a mixed methods approach*. Ethical approval for this study was given by Sunderland NHS ethics committee and the School of Medicine and Health ethics advisory committee at Durham University. The views expressed here are those of the authors and not necessarily those of the funding body. The authors wish to thank all the anonymous participants in this study.

Highlights

- an evaluation of the design of a new psychiatric hospital revealed varied views on risk management;
- staff, patients and their family carers took part in a qualitative study; 'technical safety' of built design and use of space governed behaviour of staff as well as patients;
- participants emphasized that technical safety had limitations and can be therapeutically undesirable;
- the research contributes to literature linking theories of therapeutic landscapes, social control and risk governance.

Abstract

This paper contributes to the international literature examining design of inpatient settings for mental health care. Theoretically, it elaborates the connections between conceptual frameworks from different strands of literature relating to therapeutic landscapes, social control and the social construction of risk. It does so through a discussion of the substantive example of research to evaluate the design of a purpose-built inpatient psychiatric health care facility, opened in 2010 as part of the National Health Service (NHS) in England. Findings are reported from interviews or discussion groups with staff, patients, and their family and friends. This paper demonstrates a strong, and often critical awareness among members of staff and other participants about how responsibilities for risk governance of 'persons' are exercised through 'technical safety' measures and the implications for therapeutic settings. Our participants often emphasised how responsibility for technical safety was being invested in the physical infrastructure of certain 'places' within the hospital where risks are seen to be 'located'. This illuminates how the spatial dimensions of social constructions of risk are incorporated into understandings about therapeutic landscapes. There were also more subtle implications, partly relating to 'Panoptical' theories about how the institution uses technical safety to supervise its own mechanisms, through the observation of staff behaviour as well as patients and visitors. Furthermore, staff seemed to feel that in relying on technical safety measures they were, to a degree, divesting themselves of human responsibility for risks they are required to manage. However, their critical assessment showed their concerns about how this might conflict with a more therapeutic approach and they contemplated ways that they might be able to engage more effectively with patients without the imposition of technical safety measures. These findings advance our thinking about the construction of therapeutic landscapes in theory and in practice.

Introduction

This paper presents findings from an evaluation of a newly constructed psychiatric hospital building, part of the National Health Service (NHS) in England. We show how the geography of risk management was perceived by participants in our study, many of whom problematised the socio-spatial relationships between the material environment in hospital buildings, the social practices of risk governance and the wellbeing of patients, staff and informal carers. The findings reported here contribute to the international literature by demonstrating the connections between theories regarding: the nature of therapeutic landscapes; the exercise of social discipline through surveillance; and the social construction of technical safety. This paper makes an original contribution by using a research design based in therapeutic landscape theory to demonstrate empirically how institutional risk governance seeks to impose 'technical safety' through security of the physical environment, but how in practice risk governance operates through the exercise of critical judgment by its staff and by patients.

A conceptual framework for examining the 'placement' of responsibility for risk governance through 'compassionate containment'

This paper highlights the connections between socio-geographical theories of therapeutic landscapes and other social theories concerned with the social interactions and power relationships involved in surveillance and risk governance.

We explain below how the issue of risk governance emerged in the discourses of participants in research that was initially grounded in the concept of therapeutic landscapes (Gesler, 2003; Gesler, Bell, Curtis, Hubbard, & Francis, 2004). This concept of therapeutic landscapes has informed significant developments in the geographies of mental as well as physical health (Curtis, 2010). Theories included in the therapeutic landscape framework show how health, wellbeing and healing are associated with the complex interactions between people and their material, social and symbolic environments. This geographical perspective is not limited to assessment of regional or community level factors; it also applies to more specific spaces such as individual care facilities.

Our findings elucidate how theories of safety and security are relevant for therapeutic landscapes research in health geography. We make links to the work of authors such as Foucault (1995/1977) and Beck (1992) who construe risk governance as a socially and culturally constructed process, through which society seeks to 'govern' risks to create what is

seen as a 'safer' environment, and to maintain social order through hegemonic power structures. Foucault's 'Panopticon' model describes how risk governance is often pursued through disciplining members of society by means of surveillance and regulation. Most applications of this theory emphasise the ways that subordinated groups (including psychiatric patients) are controlled by dominant groups (such as hospital staff). However, particularly pertinent to our research was Foucault's (1995, p. 204) suggestion that '*The Panopticon may even provide an apparatus for supervising its own mechanisms*', reflecting on how institutions also exert surveillance and regulation over their own agents. Stevenson & Cutcliffe (2006, p. 718) also allude to this point when they comment that '*... power is practiced as a set of actions upon actions*', exemplified by the risk governance protocols, which management requires nursing professionals to follow in psychiatric settings. Our analysis below contributes to this debate through a discussion of the potential for a critical, potentially transformative response to institutional discipline on the part of its own agents.

Beck emphasises even more strongly the *limitations* of institutional risk governance strategies, arising not only from resistance, but also from the inadequacy of 'linear', expert knowledge about the nature of risks and how to control them. 'Non-linear' notions of risk reviewed by Beck (1999), imply that different social and professional groups vary in their perception of what constitutes risk. Also, lack of awareness and unpredictability are key features of risks that are difficult to address through the institutions of modern society, especially since, as Towl (2010) emphasizes, hazards and risk are not stable, but dynamic and emergent through time. Beck describes a state of collective anxiety in modern society about risks that we are ill-equipped to control. He argues (Beck, 1999, p. 56) that '*security degenerates into mere technical safety*' as risk governance operates through manipulation of inanimate, material features of the environment and technologies, with comparatively little attempt to modify the fundamental, but more intractable, human and social components of risk. 'Technical safety' may also be reflected in the emphasis on legal liability, rather than social or moral responsibility (Douglas, 1990).

Contextualising our research in the interdisciplinary literature concerning security of psychiatric hospital design

We explain below how our work relates to an interdisciplinary literature on security in psychiatric care and here we briefly summarise this literature.

Public discourses often conflate 'madness' with high risk, feeding public perceptions of a growing problem of violence and assault and the need to maintain safety and security

(critiqued by: Moon, 2000; Jeffers, 1991; Morrison, Morman, Bonner, Taylor, Abraham, & Lathan, 2002; Trenoweth, 2003; Cowman & Bowers, 2008; Deacon, 2004). Aggressive behaviour can also lead to costs from workers' compensation, insurance, and repairing damaged property (Meehan et al., 2006) which further motivates health care institutions to show that they are exercising risk governance. Research in Europe, North America and Australia has addressed the practical problems of managing perceived risks in this sector (e.g. Halleck & Petrilla, 1988; Nijman, Merckelbach, Allertz, & a Campo, 1997; Bowles et al., 2002; Quirk, Lelliott, & Seale, 2004; Meehan et al., 2006; Stubner et al., 2006; Cardell, 2009; Fluttert, van Meijel, van Leeuwen, Bjørkly, Nijman, & Grypdonck 2011; Manna, 2010). Such concerns have led to '*the re-articulation of mental health work in the language of risk*' (Quirk et al., 2004, p. 2574) and the emergence of a new emphasis on confinement within secure buildings, which is of special interest in this paper.

'Expert' definitions of risk in psychiatric hospitals draw on 'linear' knowledge of the 'risk factors' that might be involved (Daffern, Mayer, & Martin, 2004; Hage, van Meijel, Flutterts, & Berden, 2009; Secker, Benson, Balfe, Lipsedge, Robinson, & Walker, 2004). These risk factors include the personal characteristics of users (e.g., age, gender, personality traits, diagnosis, attitudes and behaviours) and environmental factors (e.g., family background, social disadvantage, physical characteristics of wards, and staff attitudes and behaviours). Risk management in psychiatric hospitals involves decision-making, risk reduction, monitoring, and evaluating the effectiveness of a hospital's management plan. Technical safety features strongly in measures to reduce risks of absconding or self-harm. It includes attention to the physical layout of the hospital wards and identification of high-risk areas (Jeffers, 1991). Commentators also note an increasing trend towards locked wards to reduce the risks that patients who are legally detained in hospital will abscond, presenting a risk while unsupervised (Cleary, Hunt, Walter, & Robertson, 2009, p. 644). Potentially suicidal users should be protected by architectural barriers (Cardell, Bratcher, & Quinnett, 2009), including secure, non-breakable windows and breakaway shower rods; and by routine searches to eliminate potentially harmful objects such as cords, razors, and other items brought in by visitors. We present evidence below on the awareness and interpretation of these issues by the English NHS as an institution, and by its agents and clients at the 'front line' of service delivery.

In addition, there is an extensive literature examining the importance of surveillance for risk governance in psychiatric hospital settings. Much of this cites Foucault's interpretation of the *Panopticon* and its relevance for psychiatric buildings and practices. Philo (e.g. 2004) has extensively researched historical geographies of psychiatric institutions and post-asylum

geographies from these perspectives. In this paper we extend this discussion to contemporary hospital design, using an example of the new generation of purpose-built psychiatric inpatient facilities in England.

This influential rhetoric emphasizing risk governance and increasingly technical methods of observation and control is also contested in the literature, partly due to tensions between this model of risk management and other aims of mental health care (Bowles, Dodds, Hackney, Sunderland, & Thomas, 2002; Morrison et al., 2002; Deacon, 2004; Cowman & Bowers, 2008; Cleary et al., 2009). An emphasis on technical procedures and rules to enhance security and safety for staff and service users and the general public, may make it difficult to provide recreational, psychotherapeutic, educational, spiritual, and occupational therapies (Leader, 2011, p. 296). For example, the use of CCTV cameras may create problems for patients with paranoia (Leader, 2011). Coercion, control measures, and issues of legal liability collide with patients' rights to privacy and to make their own treatment choices. Locking wards may be seen as paternalistic, stigmatizing, and coercive; and, for 'voluntary' service users, contradicts their status (Cleary et al., 2009). A custodial, physically restrictive approach conflicts with relational containment strategies and may lead to user aggression (Daffern et al., 2004), since users who perceive themselves as powerless may use aggression as a form of self-empowerment. Secker et al. (2004, p. 172) argue that patients' violent behaviour may be partly due to social tensions arising from a '*lack of staff engagement with clients*'. Bowles et al. (2002) and Manna (2010) question the benefits of close observation strategies, arguing that that observation may be detrimental to psychiatric treatment, and advocating instead engagement as '*a process of emotional and psychological containment of distress*' (Bowles et al., 2002, p. 255). In this paper we use a therapeutic landscape research approach to explore the awareness of these arguments among participants and their sense of the implications for practice as well as design of hospital buildings. We show below that their sense of individual agency and knowledge, and their critical appraisal of the 'actions upon actions' imposed by the institution, had potential to re-orientate the institutional focus on technical safety and revitalize the debate about what comprises a therapeutic landscape.

Case study and method

The findings below come from a qualitative evaluation of the design of a new, purpose-built inpatient mental health care facility (referred to as the 'New Hospital'), opened in 2010 as part of the NHS in England. The study was an independent, academic research project funded by the UK *National Institute of Health Research* and although the hospital

management collaborated very constructively with the research it did not commission this study. The New Hospital had 318 inpatient beds to care for patients with acute psychiatric illnesses, geriatric conditions, learning difficulties, and a significant number of forensic cases. Patients were transferred to the New Hospital from an adjacent hospital building (the 'Old Hospital'), originally established as a psychiatric asylum in the 19th Century, and also from psychiatric wards in a hospital nearby (the 'General Hospital').

These hospitals are located in a mid-sized town in an area of Northern England, which is relatively disadvantaged in terms of socio-economic conditions and population health, with high levels of demand for mental health care. Many service users are from disadvantaged families for whom it may be especially difficult to deploy social and economic resources to influence health service provision. This makes it especially important for local health service providers to reflect carefully on research about needs and preferences of patients and carers, and the NHS Trust agency responsible for mental health care in this area has a strong track record in incorporating research into practice.

The main method of data collection was through discussion groups. In some cases, to accommodate their schedules or preferences, participants were interviewed individually. We aimed to include participants from groups who were differently positioned in the hospital institution, and likely to have varying perceptions of the hospital environment: nursing staff, psychiatric consultants, matrons and ward managers and other staff such as occupational therapists, patients, 'informal' carers (most of whom were family members) and carers' representatives. The study was approved by the ethics review board at the researchers' institution and a NHS Research Ethics Committee. Personal details were not recorded for confidentiality reasons, under the terms of the ethical approval for this study. Recruitment was based on self-selection in response to extensive advertising of the study throughout the hospital, so participants cannot be assumed to be entirely representative of the group from which they were drawn. Material is reported here from 19 group or individual meetings where issues of risk management were discussed, representing a subset from a total of 40 separate conversations in the wider study as a whole. Anonymized details of the categories of groups and individuals providing information considered here are given in Table 1. The discussions and interviews were conducted by three researchers between April 2010 and November 2011, in three stages: (1) just before the move to the New Hospital; (2) just after the move; and (3) feedback and further discussion 6-9 months after the move. Participants from stages 1 and 2 were encouraged to take part at stage 3, to promote continuity in group membership. Groups are identified by numbers shown in Table 1. The participants who raised issues of risk and technical security were more predominantly from groups made up

Table 1: Group discussions and interviews: membership, timing, no of participants

Timing relative to move to the New Hospital	Code used in text	Discussion group/ individual interview	Type of participant	Type of hospital ward	Year/Month	No of participants
Before the move to the New Hospital	1	discussion	nursing staff	forensic	2010 April	4
	2	discussion	nursing staff	forensic learning difficulties	2010 April	7
	3	discussion	nursing staff	acute psychiatric	2010 April	3
	4	discussion	nursing staff	acute psychiatric	2010 April	5
	5	discussion	family carers	acute and forensic	2010 April	4
Immediately after the move (before initial feedback)	6	interview	patient	acute psychiatric	2010 August	1
	7	discussion	consultants	acute psychiatric	2010 August	4
	8	discussion	ward managers	acute psychiatric & forensic	2010 September	3
6-9 months after the move (after initial feedback)	9	discussion	nursing staff	acute psychiatric	2010 December	4
	10	interview	nursing staff	acute psychiatric	2010 December	1
	11	interview	carer support worker	acute/forensic service	2010 December	1
	12	discussion	nursing staff	forensic	2011 January	2
	13	discussion	nursing staff	low secure forensic	2011 February	4
	14	discussion	nursing staff	medium secure forensic	2011 February	3
	15	interview	discharged patient	acute psychiatric ward	2011 February	1
	16	interview	matron	forensic	2011 March	1
	17	discussion	current inpatients	medium/high security forensic	2011 March	3
	18	discussion	consultants	acute psychiatric	2011 March	5
	19	interview	current inpatient	low security forensic	2011 March	1

of hospital staff, which explains the preponderance of comments from staff in the findings reported here. In other publications (Wood et al., 2013a, 2013b) we have highlighted further issues which were more particularly of concern to patients and to informal carers.

In the first two stages, we used an approach described in earlier publications by these authors (Gesler et al., 2004; Curtis et al., 2007; 2009), based in the literature on therapeutic landscapes (summarised above), but also grounded in the agendas set by the research participants. We asked our participants an open question about 'what aspects of the hospital buildings are important for general wellbeing of patients, staff and visitors' (including family and friends who may be informal carers). This question may have encouraged participants to discuss the material environment, though they also frequently considered social and symbolic aspects of the hospital environment. Participants commented on the Old Hospital and the psychiatric wards at the General Hospital, as well as the New Hospital. Their comments related to conditions in *forensic* wards, where patients are legally detained after committing a criminal offence and often stayed in the hospital for considerable periods, and also in *acute* wards for treatment of severe phases of mental illness, where typically hospital stays are shorter. Although forensic and acute wards were separate and their regimes varied, the presence of a large forensic facility on the site may have enhanced concern for security in the institution as a whole. Certainly the issue was raised in non-forensic acute care settings.

Discussions from the first two stages were recorded and transcribed. A thematic analysis was initially undertaken by three of the authors to identify aspects of the hospital environment that respondents considered important for wellbeing. We also examined the rationales offered by our participants to explain why these factors in the environment were important for wellbeing. Various aspects of risk management emerged strongly in several of the transcripts, giving rise to the present paper concerning participants' views about the relationships between risk management and therapeutic environments for psychiatric inpatient care. Our interpretations of the key themes were summarised and fed back to all the participants in the form of a short report in plain language. A summary of findings was also reported to the Management Board of the Trust managing the hospital. In the final round of conversations, we explained that we were interested in aspects of the hospital design that were important for wellbeing, and also showed participants (some of whom had participated in the first rounds of discussion) the feedback summary, which included issues of risk management. We then invited them to talk further with us about these topics, to explore whether new or different views had emerged over the months that had elapsed since the move. A further round of transcription and analysis was conducted on this additional

body of material through a process of 'constant comparison' to assess whether or not initial findings were reinforced.

Findings: geographies of risk

In the first two rounds of discussion, issues of risk management were raised especially by nursing staff, ward managers or consultants. Related issues were raised in discussion with some patients or their family carers.

The institutional imperative to govern certain aspects of risk was clearly expressed through the particular concern among staff about the need to avoid what was termed a '*never event*', defined in official guidance from the Department of Health (2011a, p. 33) as a '*serious, largely preventable patient safety incident that should not occur if the available preventive measures have been implemented*'. These included: escape from the forensic wards of mental health patients subject to Ministry of Justice restrictions; cases of suicide involving shower rails or curtains failing to meet prescribed standards; or deliberate or accidental falls from unrestricted windows. A matron commented that: '*we have had the 'Never Events' introduced by the Ministry of Justice ... anyone that comes to us from a prison transfer, if they ever escape, the government consider it a 'Never Event' and we would just be absolutely hammered if any convicted prisoner escaped ..., so the security has to reflect that. Whereas the majority of the patients might not need it ... they have the same conditions*' (matron, 16). This illustrates how nursing practice is influenced by 'expert' views, imposed at central institutional level, on particular risks to be avoided. The security measures required for patients presenting the greatest risks extended to the whole of a ward, influencing all the patients there to some extent.

There was also concern over more general risks of patients' aggressive behaviour toward staff and potential for self-harm:

Researcher – '... what are the biggest risks of working in this kind of environment ... [for] you or the user?'

Participant – 'for us it is violence and aggression, wards have had incidents where they are throwing the furniture and just being critically violent to us, spitting, scratching, verbal abuse, pulling hair...'

Participant – 'some can get quite physical but ... the majority of them are not aggressive towards staff ... it is normally towards themselves ...'

Interviewer – 'but what about to each other?'

Participant – 'No, the length of time that I have been here I have had one incident and

that's it.'

(forensic staff, 12)

Family carers also expressed concerns about risks of self-harm and seemed more worried than staff about violent behaviour between patients: '... [the New Hospital has] *isolated areas for somebody to wander into and hurt themselves or somebody else ...*' (carers, 5). One patient welcomed individual bedrooms at the New Hospital as providing a greater sense of personal control over one's security, and being able to lock the door (although staff would have access); '*... it gives you a wee bit more confidence ... more security in yourself and you can go to sleep*' (patient, 6).

Thus governance of risks associated with patients' behaviour was seen as an important aspect of the therapeutic landscape, especially by hospital staff, who would be most aware of institutional security requirements. However, institutional risk governance was also represented by our participants as open to question. Below we consider participants' discussion of risk governance as an aspect of the therapeutic landscape of the hospital, in particular:

- the 'placement' (or *spatialisation*) of risk and responsibility for security in a way that emphasized, but also, for our participants, put into question 'technical safety' of the building;
- a critical assessment of Panopticism and surveillance, considering both the potential and limitations of CCTV technology as means to impose institutional control;
- a critique of how 'engineering' the 'safe' activities and circulation of people in the hospital may conflict with therapeutic care.

'Placement' of risk and responsibility for security: risky objects and spaces

NHS regulations govern the security of hospital design as well as aspects of therapeutic care. The Department of Health (2011b) has issued an *Environmental Design Guide*, which emphasizes the importance of providing a safe and secure environment for patients. It identifies three interdependent 'domains' of security relating to: the physical environment; procedural security; and the 'relational' environment (understanding and use of knowledge about patients and the environment). Security of the physical environment was often reflected in the comments made by our study participants, especially the staff. Some of the discussion suggested that by 'placing' the source of risks in parts of the building, human responsibility for security (or failures of security) might be 'displaced' to the inanimate material landscape.

One matron at the New Hospital suggested the new building made it more possible to

meet required standards than in the Old Hospital:

'... the facilities [in the Old Hospital] ... they weren't really fit for purpose any more ... medium secure standards ... nationally recognised standards of security, patient involvement, staff performance that sort of thing ... the [Old Hospital] building ... was not really meeting them any more, so we were failing. Whereas the new building more closely achieves those standards. ... it's things like how high is the fence, can somebody get on top of a roof without getting over the fence ... right up to patient involvement, patient activity; the hours they spend in meaningful activity on a weekly basis ...' (matron, 16).

Staff described efforts to match material security standards to provide 'containment' as well as 'refuge' for patients. Internal courtyards in the New Hospital were described as *'... all nice and secure; 5.2m internal perimeter which is a medium secure standard ... you don't have passers by ... able to walk in and call the patients names, that kind of thing ... we're very self contained, where we were very open to the public previously'* (matron, 16).

'Safe' spaces on the wards had predominantly 'smooth' surfaces. Protruding features were considered hazardous, such as free-standing metal poles supporting the ceiling in some common spaces on the wards, seen as a risk for self-harm for distressed patients who might hit themselves against hard objects, or might attempt to climb, or swing from the pole. An artwork comprised of poetry written in raised metal lettering, snaking along the ground, was seen as creating a hazard because someone might trip over it. A staff member was worried that someone might swallow the sharp stones laid down in courtyards. Before patients moved into the new building, the entire grounds and all the wards were searched using metal detectors to eliminate objects like screws left over from construction.

Also there was strong emphasis on removal of potential 'ligature' points and all movable objects that might present a risk for self-harm. For example, a staff member told us that in the Old Hospital, *'... there were a lot of ligature points in the showers, I mean you know the cords you pull for assistance...'* (forensic learning difficulties staff, 2). As the new facility was being built, a suicide prevention assessment was carried out including an environmental audit, checking for anything that could potentially be used to hurt oneself or others: *'... they went round looking for possible ligature points So that's why the door is sloping, the tops of the wardrobes slope down'* (acute psychiatry staff, 10). Once the facility was in operation, standard procedures were used to identify and remove material risks in specific places. Regular routine checks were carried out for objects that could be used to inflict self-harm or damage others: staff looked for things like razors and other 'sharps', and pieces of string or wire.

Thus comments from nursing staff in particular, frequently 'attributed' risk to material features of the building. Considerable thought, effort and cost were invested in removing or designing out these 'material' risk factors in ways anticipated by Jeffers (1991) and Cardell et al. (2009). Notably these 'technical security' solutions operate by means of manipulating the fabric of the building and a reliance on safer design, rather than modifying the human behaviours of patients which are the ultimate source of these risks.

However, the respondents also underlined the limits to these technical security strategies. For example, built design may not evolve as rapidly as expert guidance; the New Hospital bedrooms faced *outwards*, towards the secure perimeters of the site, creating more internal space for common rooms arranged around enclosed courtyard gardens. Recently issued design standards required that individual bedroom windows should face *inward* to secure courtyards. This lack of consistency with current guidelines reflected the dynamic and unpredictable development of expert views on how to control risk through technical safety of the material environment.

Even where all identified risks had been designed out, building materials were not always resistant to the special stresses to which they were subjected when patients vented their feelings on the fabric of the building. For an example, a 'seclusion room' for observation of particularly 'high risk' patients was described as containing '*... just a mattress and ... a camera for observation and ... a toilet where you would press a button to [flush it]*' (forensic staff, 12). Here a user was able to rip up the floor: '*... we put her in and locked the door. Next thing she is ripping up the floor; big long strips ...*' (forensic staff, 12). Staff discussed how patients damaged chip board walls: '*... "put-through competitions"; who can put their fists through it and who can wreck the place*' (forensic staff, 1). In another situation, '*even a nine-stone girl managed to kick open a magnet lock [on a door]*' (forensic ward managers, 8). This again illustrates the impossibility of anticipating emergent risks.

Staff were therefore constantly aware that security measures would be tested by sudden and unpredictable incidents: '*... there is potential all the time [on forensic wards] that something could blow, so we should have our staffing levels reviewed on a regular basis ...*' (forensic staff, 14).

Another aspect of the 'placement' of responsibility for risk management was observed in the way that staff respond to calls from neighbouring wards to assist in dealing with such incidents. Their response protocol varied according to the spatial proximity of their own ward to the place where the incident had occurred. During one of our discussion groups an alarm

call sounded, but the staff were not required to attend the incident:

Researcher [as incident alarm sounds] – ‘Is that your incident alarm?’

Participant – ‘That’s our alarm, yeah ... [explains that the incident has happened in a ward located next to two other wards] ... so ... they get a three person response quite quickly. We are the furthest away from them ...’

(low secure forensic staff, 13)

These accounts all reflected a socially constructed geography of risk governance, in which responsibility for security is exercised through management of the technical design of material aspects of the hospital space. Responsibility for risk containment is attributed with reference to *where* the risk is located as much as *what* or *who* is the underlying cause of the risk. Participants, especially staff, expressed an uncomfortable awareness of the tension between the idea that responsibility for risk might equate to technical security and the knowledge that in reality technical security solutions were constantly proving to be insufficient to control emergent risks.

The contemporary Panopticon: limits to technical surveillance using CCTV and built design

As we might anticipate from social theories of surveillance and social control, staff and carers commented on the need to observe the patients. The New Hospital was seen as being more fit for this purpose than older facilities, but, in spite of the long history of institutional attention to surveillance, some material aspects of this new, hospital design obstructed observation. Also the innovation of CCTV as an example of ‘apparatus for surveillance of its own mechanisms’ seemed prominent in the discussions to an extent which is not widely recorded in other research.

The physical layout of the whole building was considered important, reflecting ideas from the original theory of the Panopticon (discussed above). A manager described another mental health facility as being ideal because it allowed one to ‘... *stand at the entrance of the ward ... and see every bit of the ward*’. For some of our participants the New Hospital building also provided ‘lines of sight’ to assist observation: ‘... *when you come out of the office you can see right down the corridor and then, if you just go round the first corner, you can see straight down the other corridor, so you can pretty much see most places on the ward, you know, if you are looking for patients or whatever, I think that’s a good idea*’ (acute psychiatry staff, 3). Another manager commented that glass partitions offered a clear view of the garden courtyards, and a member of staff on one of the acute wards also commented

that the shape of the building was *'Good for observation; you can see across the courtyard into the rooms at the other side.'* (acute psychiatric staff, 10). One member of staff appreciated being able to see a courtyard from every corridor in a ward arranged over one floor; this contrasted favourably with another hospital where the acute wards were on two floors, *'which is terrible for observation'* (acute psychiatric staff, 4).

However, the new hospital design was also criticized for failures in technical security which had not been anticipated, resulting in impaired surveillance. These issues were most often mentioned by nursing staff and one concern was that patients might harm themselves while unobserved. There was frequent discussion among managers and staff about specific hospital spaces that presented a risk because they were not easily observable. These included 'blind spots' and 'lines of sight' blocked by walls or furniture (such as a partition separating an office from a dining room, or a television and its casing protruding into the room). For energy efficient heating, certain doors remained closed, blocking lines of sight. Staff 'located' particular places in the hospital that interfered with observation, such as the new, individual bedrooms, where it was more difficult to observe patients than in the old, dormitory-style wards. *'Some patients maybe need a bit more watching than others, 'cos they tend to cover themselves so you can't really see, so it means that you have to go in, into the room, which can be quite noisy and wakes them up ...'* (acute psychiatric staff, 4).

The 'calm rooms' in the ward spaces were also difficult to observe:

First Participant: '... if anybody is being violent or having bad thoughts we put them in the calm room, but the calm room has got a corner in it, so they can hide in the corner ...'

Second Participant: '... it has a bit of a recess to the right, so if you are stood at the door they can hide behind this little recess ... so you have to go in and keep checking that they are not messing about with any plugs or anything like that ...'

First Participant: '... so I think in future if they are going to build a room like that it should be like a square shape, ... so that there isn't a hidey hole ...'

(forensic staff, 12)

Family carers shared this concern about: *'... isolated areas for somebody to wander into and hurt themselves or somebody else ...'* (carers, 5).

Apart from the built form of the building, discussion often focused on a technical innovation in the New Hospital comprising CCTV cameras installed in the common spaces. Participants described how, before the move to the New Hospital, there was some apprehension about these, although subsequently the CCTV system was generally found to

be acceptable in use. It seemed that staff and patients became accustomed to CCTV, and staff and consultants found it reassuring and useful to monitor 'illicit' behaviours and absconding, as well as self-harm or violent behaviour.

Participant: 'Yeah, ... there was a lot of rumours going around when we moved over; ... we'll have all these cameras, and we're going to be watched ... actually none of that has happened, they're fine, they're good, they are a good backup.'

Researcher: 'And patients are fine with the CCTV?'

Participant: 'Well nobody's ever commented actually, and you don't find them intrusive if you just forget they are there. But you know that they are there for backup. So if somebody was in the office and they were looking at the camera, and a nurse was in difficulty down a corridor, or somewhere, you could see straight away, so that's good.'

(acute psychiatric staff, 10)

'... some people were caught on the CCTV passing ... drugs to each other, and that was very useful, so it is not just about violence ... I had a lady absconded ... with some visitors who helped her abscond and we saw that on the CCTV so that was very useful in terms of dealing with it. I think that overall the CCTV has been a very positive thing for the unit ... I mean I was a bit sceptical about it, but it's worked, worked out really well.'

(consultants, 7)

A forensic patient said, *'I am not bothered, they don't bother me, cameras ...'* (forensic inpatients, 17) and an acute patient told us, *'I think it's good safety wise, definitely ... it protects the staff and the patients doesn't it? So they can see if anything is going on'* (acute patient, 15).

To a greater degree than the traditional human observation methods anticipated by the original concept of the Panopticon, CCTV provides and records surveillance of *everyone* in a ward. Staff talked about the fact that their behaviour towards patients could be under scrutiny using evidence from CCTV: *'... when an incident happens, then they use them and they can go back and if someone has accused one of the members of staff has done something untoward they can use it ... also, I suppose, they can keep an eye on the staff as well and make sure they are doing their job ...'* (forensic staff, 12). Thus staff were acknowledging the potential of CCTV to serve the institution as an *'apparatus for supervising its own mechanisms'* referred to in the introduction.

However, limits to CCTV surveillance were commented on. A family carer said: *'...'*

nobody will be looking at the CCTV monitor all the time How quickly will they pick up what is going off? ... they do have CCTV cameras in the corridors but ... not in the bedrooms, for obvious reasons; I understand that, but then how are they going to monitor that ... you know people fight and attack each other, don't they?' (carers, 5). Consultants we talked to were clear that the bedroom spaces should not have cameras due to considerations of human 'rights' to dignity and privacy. One commented that: *'... there couldn't possibly be cameras in the bedroom "cos of human rights"* and another concurred: *'I think we have got enough as it is and I think it works quite well'* (consultants, 18). Doubts were also expressed about whether CCTV observation was a good substitute for the watchful presence of a nurse among the patients in the ward. A member of staff from a forensic ward commented that: *'... it's not the same having the camera, you know. You are sat in the office [where CCTV screens are located]; you don't get into the day area with the patients doing your job, ... so that is a negative'* (forensic staff, 14).

Some forensic patients also expressed mixed feelings about the use of CCTV. Different patients commented that: CCTV is *'... an infringement of your privacy as there is cameras everywhere ...'*; *'... it is supposed to be your home ...'*; *'... you are on camera when you are waiting for your medication and you get sick of it ...'* (forensic inpatients, 17).

A matron argued that CCTV is more useful in dealing with the aftermath of incidents on the ward than in preventing them:

Researcher: '... are [the CCTV cameras] useful in stopping incidents?'

Participant: 'No, not necessarily, the patients are aware it's there, so maybe ... it does act as a sort of control on behaviour, but we haven't really found that; if someone wants to behave, er, disgracefully they tend to and the cameras don't put them off.'

Researcher: '... does that give you a secure feeling?'

Participant: 'No, not especially, no, they are purely for the aftermath, it's not going to stop me getting punched having a camera in the day room – I am still going to get punched – just other people will be able to watch it afterwards' (matron, 16).

This exchange seems important as it again puts in question to what extent institutional control and discipline can be achieved through modern technical surveillance strategies. The surveillance function is presented here as auditing events to establish liability rather than avoiding untoward incidents.

Engineering security vs therapeutic care

The discussion above illustrates how participants expressed a critical awareness of the limitations of technical safety measures. This critique was extended by various groups of participants who also commented that concentrating on 'technical safety' of the physical environment and observation of patient's activities and movements could impede their capacity to attend to the social and physical needs of patients and informal carers.

For example, security concerns limited use of spaces originally intended for therapeutic activities designed to help patients develop skills for daily living. Staff found this frustrating:

First Participant: 'I'll tell you what, it is a bit silly for me ... we have a patients' kitchen and we have never been able to use it since we have moved over here, ... instead of them having the independence to be able to go and make their own cup of tea ... we have to put [tea] trolleys out for them.'

Researcher: 'So why can't you use it [the kitchen]?'

Two Other Participants: 'Ligature points!'

First Participant: [big sigh of frustration] 'Ligature points!'

Second Participant: 'and, er, risk assessments'.

(acute psychiatric staff, 9)

The growing emphasis on security, prompted by responses to specific incidents in other hospitals, was thought by a matron to reduce the scope for therapeutic activities away from the hospital site: *'The government's attitude, the press's attitude, like "serial killer on loose with axe on holiday", all that kind of thing, [mean that activities such as patient holidays away from the hospital] has all been knocked on the head ... we used to have patient holidays ...'* (matron, 16).

In secure wards, strict security controls governed visits by family members, though nurses seemed to apply these rules with a degree of flexibility.

First Participant: 'There is set times for them ... but if they are coming from quite a distance or if they work we will be more flexible with them ...'

Second Participant: '... we allow two visitors on the ward at any time ...'

First Participant: '... they are all supervised as per policy; all visitors have to be supervised by a member of staff ...'

Researcher: '... so is it like a booked visit system?'

First Participant: 'Yeah, well, they are supposed to give us 24 hours notice; again, if

someone phones in the morning we will book them in.'

(low secure forensic staff, 13)

Such regulations may restrict the beneficial experience of carers' visits. A carers' support worker commented that for visitors to the forensic wards security measures could seem *'quite daunting ... it does feel almost like you are going somewhere quite dangerous ...'* (carers' support worker, 11).

Some forensic patients were required to be escorted when going outside the ward, which limited the opportunities for healthy activities such as occupational therapy or visits to the gym, located in a different part of the building. This was becoming an issue in the New Hospital because more stringent requirements for supervision were making it more complicated to move patients between different parts of the hospital building. A nurse commented: *'I am struggling with taking people to the gym now we are in this new building. It has to be with two staff [escorting the patient] whereas in the old building I could take them with one staff member and so it was very easy for me to take the lads down. Now, with staffing levels the way they are, they are missing out because now they are not going no more.'* (forensic staff, 14). Forensic patients also suggested that *'the shortage of staff means ... you don't get a lot of exercise,'* and that *'you are trapped in, everything looks the same; it's a little boring'* (medium secure forensic patients, 17).

Other feedback from patients showed that they acknowledged that risk management was important, though some were concerned it was over-emphasised: *'Health and safety is all the rage these days, and it usually takes precedence over a lot of issues'* (forensic patient, 19). Patients cited specific problems that technical safety strategies caused for their wellbeing. One of the forensic patients suggested that *'it would be nice to have a carpet,'* but that one of the reasons why this was not possible was because of *'health and safety'* (forensic patients, 17). Another complained that: *'you are going a bit too far with the ligature points, I suppose people have to be protected, but there was a clock hung over there by a nail in front of the [staff] office, but it was taken away and the clock came down ... I mean it is a rehabilitation ward for a start, I can't see someone hanging themselves in front of the office ... it's just silly ... I understand you need to be protected, that's why pictures can't go on the wall'* (forensic patient, 19). While it is possible that the clock was removed for other reasons, the significant point here is that the patient perceived this change as part of a general tendency for over-exaggerated emphasis on technical aspects of ward security.

Adjustable windows for flexible ventilation were of concern to one patient and this

account reflects a sense of resigned acceptance of the demands of technical security that removed this amenity:

'Second best feature, in my bedroom is the sliding sort of patio style window, and it's meshed, so that no contraband can be passed through, and in the summertime there's a lovely breeze through, and the warmth, and at night time it is just nice to have it just ajar so I can keep warm Then about four months ago everybody's window was either locked open ... or locked closed, and I was very disappointed, but I didn't take it any further because I knew it was an issue that's come from security ...' (forensic patient, 19).

Several participants recognized the tension between risk management and other aspects of care and therapy, and the need to achieve the right balance between these. One of the 'modern matrons' at the hospital reflected that *'... we have got a dual role; a clinical role to provide the care and attention the patient needs because they are not well, but we also have to maintain the security of the place to make sure we are not letting anyone out and putting anyone at risk'* (matron, 16).

Some staff members were consciously thinking about how to achieve a better therapy/security balance. For example, it was suggested that nursing staff should use good judgment about when to 'trust' patients to take some responsibility for their own behaviour, as part of the recovery process. This was illustrated in the following exchange:

First Participant: '... we found a girl with a big long bit of wire and she hid this above her bathroom, so it's like, if she wanted to kill herself, that's what she would have used ...'

Second Participant: 'But she admitted to it, didn't she? And she gave it in didn't she? So it's a way they are coping as well, to hand things over; they feel good for doing it sometimes.'

First Participant: 'Yeah, because we praise them ... when they hand the razor in, it's a bit of trust as well, you have to take risks.'

Second Participant: 'To be honest, if you took everything away from them all the time, you can't tell if they are improving or not improving.... We know their tricks and we know the traits. ... I could tell you when they are going to do something ...'

(forensic staff, 12)

These comments seem to suggest a perception shared by staff and patients that some degree of technical safety management should be sacrificed in the interests of more therapeutic care and trust gained from a stronger reliance on social interactions and understanding between staff and patients.

Discussion

Our findings relate to the discourses of selected individuals from a single case study and the details are not necessarily generalisable. Furthermore, we have noted that this evaluation of a new hospital building may have focused attention of our participants especially on physical infrastructure.

Our findings make an original contribution to therapeutic landscapes theory by elucidating how technical security dimensions of the physical environment of the hospital contribute to its function as a therapeutic landscape. We do this by considering some of the most recent contemporary developments in hospital design and technology. Also, we show how arguments concerning the limits to technical safety put forward by authors such as Beck lead us to a more nuanced understanding of some of Foucault's arguments concerning the ways that institutions control not only those that they are charged to care for, but also those who work as 'agents' of the institution. Our findings draw attention to the potential of these 'agents' as 'actors' promoting change in organizational risk governance.

Much research focuses on social behaviour and practice (especially nursing practice intended to control risks presented by patients' behaviours). This paper draws attention to the interaction between the material environment and social environment and contributes theoretically to the growing literature on therapeutic landscapes. Our discussions with participants in this study underlined the usefulness of examining risk perception and management from a *spatial* perspective. Many specific risks were represented as 'located' in parts of the built infrastructure, such as inadequate building materials or ligature points, and this rhetoric reflects a tendency to displace responsibility from the human actor to the inanimate built environment. These places became the focus of continual searches and attempts to eliminate risk, consistent with the idea of a 'Panopticon' geography of surveillance, illustrated by concerns for 'blind spots', 'danger spots', and unimpeded 'lines of sight', as well as increased watchfulness over patients' movements through less controlled spaces.

The paper also demonstrates the significance for practice of the introduction of CCTV surveillance of parts of the hospital space, creating a contemporary geography of perceived risk and risk governance, where privacy was perceived to equate with danger for some of our participants. Our respondents commented on how, through CCTV, the 'Panopticon' now applies to *all* people in a hospital; staff as well as patients. This seems consistent with Foucault's (1995, p. 204) suggestion that '*The Panopticon may even provide an apparatus*

for supervising its own mechanisms'. However, a further nuance of this argument emerging in our study was that the use of CCTV may illustrate how *compliance with risk governance mechanisms* may become an end in itself, rather than the actual control and reduction of risk. Thus *recording* untoward events rather than *preventing* them may become the security objective.

At the same time, we have demonstrated in this research a strong awareness among those working in the hospital of the theoretical critique of risk containment measures constructed according to a 'linear model' of risk, which cannot ensure complete risk prevention and may conflict with other principles that are important in a healing environment. Although technical safety measures were in place it had not been possible for building design to keep pace with changing risk governance guidance or with constantly proliferating instances of new aspects of risk being discovered. Furthermore, some aspects of technical safety were seen to be at odds with other objectives for therapeutic care. The move to the New Hospital had provided an opportunity to enhance the material environment and levels of technical safety, but such measures could not, in practice, keep pace with emergence of new aspects of risk and risk governance.

The research participants (particularly members of staff) therefore expressed a critical perspective on technical safety measures, in a way that is not always anticipated by theories representing them as 'agents of the institution', whose individual initiative is subjugated to institutional policies and discipline. On one hand they acknowledged the possibility that staff and the institution might seek to displace some of the burden of responsibility that they carry, through greater reliance on technical safety measures. However, we also show that they resisted this tendency, and were very alert to the failures and inadequacies of technical safety strategies in the form of contemporary built structures and technologies. They seemed to be ready to assume (or perhaps more accurately re-appropriate) a greater degree of human responsibility for managing risk, through action focused more on the human patients they were caring for.

Environmental Design Guidance for 'medium secure' hospital settings, issued in England by the Department of Health (2011b, p. 7), emphasizes the importance of a '*balance required ... between maintaining the safety and security of patients and staff ... [and providing a] ... beneficial therapeutic environment*'. However, the guidance is not very detailed in terms of how to achieve this, and several of our respondents argued this is a difficult balance to strike. These arguments are consistent with literature suggesting that 'technical safety' is not a sufficient solution in psychiatric care settings and that risk

management cannot depend on planned containment strategies. Zinn (2008) and Trenoweth (2003) call for a 'flexible' compromise 'in between' 'rational' and 'non-rational' solutions, deploying trust and emotion, and this was in part what our participants also seemed to be advocating. Our therapeutic landscapes perspective has highlighted that the spatial and material context for these behaviours, as well as the social relations involved, are put in question by this vision of a more flexible and intuitive approach to risk governance. The challenge, then, for the next generation of psychiatric hospital design is likely to focus on how to create spaces of care which offer reasonable levels of technical safety, but also flexibility to accommodate changes in practice, including a possible future trend toward practice guidelines that allow for 'therapeutic risk-taking', negotiated in a way that empathises with patients' experiences and feelings (UKCC, 1998; Bowles, et al. 2002 p.258; Lankshear, Ettore, & Mason, 2005). Critical comments by our participants suggest they are potentially active forces for change in these directions. We concur with Leader's (2011, p. 330) comment that '*Therapy can do no more and no less here than to help the psychotic subject ... create a safe space in which to live.*' While a 'safe place' implies a reasonable degree of 'technical safety', it may, as importantly, embrace social, psychological, and emotional safety, corresponding to the relational, social and symbolic dimensions of therapeutic landscapes.

Acknowledgements

The research reported here forms part of a larger project funded by the National Institute for Health Research, UK, entitled *ADVANCE: Evaluating the implementation of a new psychiatric inpatient facility, a mixed methods approach*. Ethical approval for this study was given by Sunderland NHS ethics committee and the School of Medicine and Health ethics advisory committee at Durham University. The views expressed here are those of the authors and not necessarily those of the funding body. The authors wish to thank all the anonymous participants in this study.

References

Beck, U. (1992) *Risk Society: Towards a New Modernity*. London: Sage.

Beck, U. (1999) *World Risk Society*, Cambridge: Polity Press.

Bowles, N., Dodds, P., Hackney, D., Sunderland, C., & Thomas, P. (2002). Formal observations and engagement: a discussion paper. *Journal of Psychiatric and Mental Health Nursing*, 9, 255-260.

Cardell, R., Bratcher, K.S., & Quinnett, P. (2009). Revisiting "suicide proofing" an inpatient unit through environmental safeguards: A review. *Perspectives in Psychiatric Care*, 45(1), 36-44.

Cleary, M., Hunt, G.E., Walter, G., & Robertson, M. (2009). Locked inpatient units in modern mental health care: values and practical issues. *Journal of Medical Ethics*, 35(1), 6444-6446.

Cowman, S. & Bowers, L. (2009). Safety and security in acute admission psychiatric wards in Ireland and London: a comparative study. *Journal of Clinical Nursing*, 18(9), 1346-1353.

Curtis, S. (2010). *Space, Place and Mental Health*. Farnham, UK: Ashgate.

Curtis, S., Gesler, W., Priebe, S., & Francis, S. (2009). New spaces of inpatient care for people with mental illness: a complex 'rebirth' of the clinic. *Health & Place*, 15(1), 340-348.

Curtis, S., Gesler, G., Fabian, K., Francis, S., & Priebe, S. (2007). Therapeutic landscapes in hospital design: A qualitative assessment by staff and service users of the design of a new mental health inpatient unit. *Environment and Planning C*, 25, 591-610.

Daffern, M., Mayer, M.M., & Martin, T. (2004). Environment contributors to aggression in two forensic psychiatric hospitals. *International Journal of Forensic Mental Health*, 3(1), 105-114.

Deacon, J. (2004). Testing boundaries: The social context of physical and relational containment in a maximum secure psychiatric hospital. *Journal of Social Work Practice*, 18(1), 81-97.

Department of Health (2011a). *The "never events" list 2011/12, Policy framework for use in the NHS*. Department of Health, England.

Department of Health (2011b). Environmental Design Guide: Adult Medium Secure Services. http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_126177.pdf (Accessed on 5th August 2012).

Douglas, M. (1990). Risk as a forensic resource. *Daedalus*, 119(4), 1-16.

Foucault, M. 1995 (1977). *Discipline and Punish: The Birth of the Prison* (2nd Edition of original 1977 translation). New York: Vintage.

Fluttert, F.A., van Meijel, B., van Leeuwen, M., Bjørkly, S., Nijman, H. & Grypdonck, M. (2011). The Development of the Forensic Early Warning Signs of Aggression Inventory: Preliminary findings Toward a Better Management of Inpatient Aggression. *Archives of Psychiatric Nursing*, 25(2),129-137.

Gesler, W. (2003). *Healing Places*. Lanham, Maryland, US: Rowman and Littlefield.

Gesler, W., Bell, M., Curtis, S., Hubbard, P., & Francis, S. (2004). Therapy by design: evaluating the UK hospital building program, *Health & Place*, 10(2), 117-128

Hage, S. van Meijel, B., Flutterts, F., & Berden, G.F.M.G. (2009). Aggressive behavior in adolescent psychiatric settings: what are risk factors, possible interventions and implications for nursing practice? A literature review. *Journal of Psychiatric and Mental Health Nursing*. 16, 661-669.

Halleck, N.H. & Petrila, J. (1988). Risk management in forensic services. *International Journal of Law and Psychiatry*, 11(4), 347-358.

Jeffers, T.J. (1991). Safety considerations in the psychiatric setting. *Psychiatric Hospitals*, 22(3), 119-122.

Lankshear, G., Ettorre, E., & Mason, D. (2005). Decision-making, uncertainty and risk: Exploring the complexity of work processes in NHS delivery suites. *Health, Risk & Society* 7(4), 361-377.

Leader, D. (2011). *What is Madness?* London: Hamish Hamilton.

Lupton, D. (1993). Risk as moral danger: the social and political functions of risk discourse in public health. *International Journal of Health Services*, 23(3), 425-435.

- Manna, M. (2010). Effectiveness of formal observation in inpatient psychiatry in preventing adverse outcomes: the state of the science. *Journal of Psychiatric and Mental Health Nursing*, 17(3), 268-273.
- Meehan, T., Fjeldsoe, K., Stedman, T., & Duraiappah, V. (2006). Reducing aggressive behavior and staff injuries: a multi-strategy approach. *Australian Health Review* 30(2), 203-210.
- Moon, G. (2000). Risk and protection: the discourse of confinement in contemporary mental health policy, *Health and Place*, 6(3), 239-250.
- Morrison, E., Morman, G., Bonner, G., Taylor, C., Abraham, I., & Lathan, L. (2002). *Archives of Psychiatric Nursing*, 16(3), 108-117.
- Nijman, H.L.I., Merckelbach, H.L.G.J., Allertz, W.F.F., & a Campo, J.M.L.G. (1997). Prevention of aggressive incidents on a closed psychiatric ward. *Psychiatric Services*, 48(5), 694-698.
- Philo, C. (2004). A geographical history of institutional provision for the insane from medieval times to the 1860s. Lewiston, N.Y.: Edwin Mellen Press.
- Quirk, A., Lelliott, P., & Seale, C. (2004). Service users' strategies for managing risk in the volatile environment of an acute psychiatric ward. *Social Science and Medicine*, 59, 2573-2583.
- Secker, J., Benson, A., Balfe, E., Lipsedge, M., Robinson, S., & Walker, J. (2004). Understanding the social context of violent and aggressive incidents on an inpatient unit. *Journal of Psychiatry and Mental Health Nursing*, 11(2), 172-178.
- Stubner, S., Gross, G., & Nedopil, N. (2006). Inpatient risk management with mentally ill offenders: results of a survey of clinical decision-making about easing restrictions. *Criminal Behavior and Mental Health*, 16(2), 111-123.
- Trenoweth, S. (2003). Perceiving risk in dangerous situations: Risks of violence among mental health inpatients. *Journal of Advanced Nursing*, 42(3), 278-287.
- Towl, G. (2005). Risk Assessment. *Evidence Based Mental Health*, 8, 91-93.

United Kingdom Central Council (UKCC). (1988). *Guidelines for Mental Health and Learning Disabilities Nursing*. London: United Kingdom Central Council for Nursing Midwifery and Health.

Wood, J, Curtis, S, Gesler, W., Spencer, I.H., Mason, J., et al. (2013). [Creating 'therapeutic landscapes' for mental health carers in inpatient settings: A dynamic perspective on permeability and inclusivity](http://dx.doi.org/10.1016/j.socscimed.2012.09.045). *Social Science & Medicine*, <http://dx.doi.org/10.1016/j.socscimed.2012.09.045>.

Wood, J, Spencer, I., Curtis, S. Gesler, W, Curtis, S., Mason, J., Close, H., & Reilly, J. (2013b). Spaces for smoking in a psychiatric hospital: social capital, resistance to control, and significance for 'therapeutic landscapes' *Social Science & Medicine (in press)*.

Zinn, J. O. (2008). Heading into the unknown: Everyday strategies for managing risk and uncertainty. *Health, Risk and Society*, 10(5), 439-450.