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Hospital corridors as lived spaces: The reconfiguration of social boundaries during the early stages of the Covid pandemic

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Abstract

This article explores the meanings and uses of a hospital corridor through 98 diary entries produced by the staff of an English specialist hospital during the early stages of the COVID-19 pandemic. Drawing on Lefebvre's (1991, *The production of space*. Blackwell) threefold theorisation of space, corridors are seen as conceived, perceived and lived spaces, produced through and enabling the reconfiguration and reinterpretation of social interactions. The diaries depict two distinct versions of the central hospital corridor: its 'normal' operation prior to the pandemic when it was perceived as a social and symbolic space for collective sensemaking and the 'COVID-19 empty corridor' described as a haunting place that divided hospital staff along ostensibly new social and moral boundaries that impacted negatively on lived work experiences and staff relationships. The mobilisation of the central hospital corridor in the daily social construction of meaning and experience during a period of organisational and societal crisis suggests that corridors should not be only seen as a material backdrop for work relationships but as

social entities that come into being and are maintained and reproduced through the (lack of) performance of social relations.

KEYWORDS
boundary work, Covid-19 pandemic, healthcare workforce, NHS Trust, place, social boundaries, space

INTRODUCTION

Researching the day-to-day uses of hospital spaces in addition to questioning the intentions of designers' plans and the social norms embedded in hospital layouts is central to a spatial sociology of health (Martin et al., 2015). This article explores the spatial dimensions of the lived experiences of staff working in an English NHS Trust during the opening months of the COVID-19 pandemic. Drawing on Lefebvre's (1991) threefold theorisation of space—conceived, perceived and lived space—the paper examines how NHS staff perceived and used the central hospital corridor before and during the early stages of the pandemic.

The rapid onset of the pandemic restricted physical access to hospitals and altered the way shared hospital spaces such as corridors were used and perceived by their occupiers. Diary entries collected at the beginning of the COVID-19 pandemic from NHS staff working in an English specialist hospital depicted two distinct versions of the corridor: its 'normal' operation prior to COVID-19 when the hospital corridor was seen to provide social and symbolic resources for collective sensemaking and the 'COVID-19 empty corridor' which acted as a spectre, haunting and dividing hospital staff in ostensibly new ways. Restricting or completely denying staff access to the hospital corridor led to the creation of new social and moral boundaries that impacted negatively on lived work experiences and staff relationships. The empty corridor served to accentuate further the key social role the central corridor had played in pre-pandemic times as a space that facilitated staff relationships and collective meaning. The paper begins by discussing relevant literature on hospital corridors before foregrounding Lefebvre's (1991) three dimensional approach to space.

Hospital corridors

Corridors are typically considered to be liminal locations, that is, places that are 'betwixt and between' (Turner, 1967), being situated within or constituting a boundary or transition area and having no functional role except to be the conduit between other places of note. Not surprisingly, their social significance tends to be underplayed as corridors are not seen to provide anchors for identity work or meaning-making except in relation to the separately defined locations that they connect (Turner, 1967) or as reclaimed places of refuge and rest for staff members (Shortt, 2015). Hospital corridors are typically seen as points of connection to and division from other hospital places, for example, by controlling patients' and the public's access to places such as operating theatres (Markus, 2013). However, recent research studies about hospital corridors emphasise their social significance by illustrating complex social uses beyond navigation and efficient transport (Zook & Bafna, 2022).

Hospital corridors are inhabited by multiple user groups, such patients, health-care staff (clinical and non-clinical), volunteers, suppliers and the general public. They are places where people can stop and dwell in existing seating areas or waiting points, where it is acceptable to cry in public, where information is shared with staff, patients and their relatives (the public), and where staff are at work but are outside of their core working location (Sailer, 2022). This multitude of users and experiences positions publicly accessible hospital corridors not simply as liminal spaces that facilitate transport of patients, materials and information, but also as spaces that can catalyse social interactions within the bounds of hospital policy and guidelines (Sailer, 2022), and which can provide a key location for the development of staff relationships (Zook & Bafna, 2022).

Indeed, hospital corridors are spaces where work roles can become blurred or less strictly demarcated and this facilitates both casual and formal conversations between staff and patients, which can be useful for teaching and knowledge exchange among staff and contribute to healthier working relationships (Long et al., 2007; Sailer, 2022). Given the possibilities afforded by hospital corridors with regards to the construction and reconfiguration of social meaning and relationships, subjecting them to a detailed sociological analysis could yield fresh insights into how they contribute to and are impacted by staff relationships during crisis times.

The turn to a sociology of space in health

Sociologists have recently started to accord space a more central role in the study of health and illness (Martin et al., 2015; Urry, 2014) and of social care (Nettleton et al., 2020). We draw on the sociological approach of Lefebvre (1991) to distinguish between conceived representations of space, perceived spatial social practices and lived spaces to highlight the social, open-ended and multi-layered nature (Massey, 1994) of hospital corridors.

Conceived space refers to forms of knowledge that organise and represent space through established disciplines, such as architecture, urbanism and social planning. This type of space is representational, being seemingly separate from social and political realities. Although conceived space exists mostly in the mind and the plans of the experts, it 'is a place for the practices of social and political power; in essence, it is these spaces that are designed to manipulate those who exist within them' (Lefebvre, 1991, p. 222).

Perceived space refers to the accepted spatial practices that unfold in conceived spaces, more particularly to the ordering of people, technologies, information and artefacts that flow through conceived spaces to maintain a particular social order; in the case of hospitals, the clinical social order which has at its heart the treatment and management of diseased bodies. In so doing, perceived space reproduces key aspects of dominant ideology, by stabilising social relationships while also being continually open to the reinterpretation and reconfiguration of social practice (Bell, 2018). In addition to clinical practices such as operating on patients and making clinical and business decisions, social practices, such as talking, meeting, walking, eating, cleaning, hugging, crying and even dying, illustrate the complexity of perceived space (see also Peltonen's discussion of the production of perceived spaces in universities, 2011).

While perceived space is to a large extent constrained by conceived space, it offers opportunities for multiple social positionings for its varied occupants. The resulting lived space refers to collective experiences of space which emerge from the interpretations and experiences of individuals and groups inhabiting the built environment (Lefebvre, 1991). Users give space meaning that may include the acceptance of symbolic differentiations from and resistance to designers' intent for the conceived space and its embedded social order. Users may 'demarcate,

beacon or sign (...) space, leaving traces that are both symbolic and practical' (Fuchs, 2018, p. 192) to reproduce or challenge what has come to be socially expected within a built space. Lefebvre (1991) argues that space is not a neutral or passive actor given that all spatial phenomena are produced and reproduced within wider social and political discourses. Given that a 'dialectical relationship (...) exists within the triad of the perceived, the conceived, and the lived' space (Lefebvre, 1991, p. 39), these three dimensions should not be understood in isolation but as an interconnected whole.

Hospital space is therefore more than the mental construction of architects, designers and other experts and can encompass more than the social ordering imposed on the arrangement of people and resources by conceived spaces. Hospital space should be seen as a site of social meaning and lived experience which is continuously worked upon, contested, made and remade in an open-ended fashion. Indeed, according to Massey (2005), space is the product of relations or of the absence of relations, and therefore it is necessarily social. Lived experiences of spaces are always open to reconstruction and reinterpretation by groups and individuals, encompassing both relations that exist in the present and those that may do so but are yet to be realised. According to Massey spaces are constitutive of and constituted by multiple stories and experiences, both present and still 'under construction' (Massey, 2005, p. 9), and by variegated relations that are yet to be made or unmade. It is the heterogeneity and plurality of experiences mediated by space that offer a unique opportunity for a sociological analysis of hospital corridors.

All corridors are context dependent and the specific context of public access corridors in hospitals is important for their interpretation. Although some corridors in hospital settings do restrict access to certain groups, many hospital corridors have defined guidance in their design and are required to be accessible to the public and other service users (Emmanuel et al., 2020; Gesler et al., 2004). These contextual factors must be considered when exploring how this space is used. Although clinically and organisationally regulated, hospital corridors are a continuation and a reflection of the social practice of everyday life (Street & Coleman, 2012). Such practices can include gossiping, crying, taking breaks from work, going to the toilet and having lunch. They coexist with organisationally sanctioned social practices such as patient waiting, communication with patients, information exchange between members of staff, delivery of materials and transport of patients. What happens when the social fabric of such spaces is disrupted, restricted or completely undermined due to major crises?

Research studies looking at the way in which COVID-19 changed hospital spaces focus on how the crisis was met by repurposing existing hospital spaces to address the new needs of the nation (Sailer, 2022). The suspension of non-urgent procedures was aimed at freeing up space to treat COVID-19 patients and save as many lives as possible. Although COVID-19-specific hospitals were erected (for example, the NHS Nightingale hospitals), they were not operational for many months into the crisis, and the initial response to the pandemic came from pre-established hospitals. These hospitals made changes to their physical layouts and practices, including widespread use of personal protective equipment, social distancing, one-way systems and markings to control the usage of hospital space, introduction of Plexiglas barriers, reallocation of clinical spaces for alternative uses and the introduction of remote working where possible. The changes disrupted established social norms and networks and restricted access to shared hospital spaces, such as hospital corridors, cafés and prayer rooms.

In this study, we examine the day-to-day uses of a central hospital corridor during the first COVID-19 lockdown in 2020. In so doing, we also bring into focus the intentions of designers' plans for the corridor and the social order embedded in this shared space (Martin et al., 2015). For this study, we focus only on the experiences of hospital staff, not those of patients or other

users as these groups were either removed from the hospital or had their access heavily restricted during the time of interest. The mobilisation of the central hospital corridor in the daily social construction of staff meaning and experience suggests that the corridor was not only perceived as the material backdrop against which work relationships unfold but also as a social entity in and of itself that came into being and was maintained and reproduced through the (lack of) performance of social relations.

METHODS

The setting of this study is a small, specialised, orthopaedic NHS Trust located in England. During the pandemic, the Trust became a COVID-19-free hospital and took on some services from other local Trusts to support them in meeting the COVID-19 demand. As a result, several specialist services were closed. Across the hospital, many employees were required to change their work role, tasks or job location as they were asked to work on different sites or at home according to need or social distancing policy.

This study was initially positioned as a small management exercise serving to document staff experiences during the opening months of the COVID-19 pandemic intended to support future organisational learning. During the setup of the exercise, one management staff member spoke to a local university with a view to expanding the exercise into a research study and bringing academic expertise on board. Ethical clearance was obtained, and the participants were fully informed and consented to the data also being used for research purposes, prior to the start of the data collection. The management exercise did not aim to investigate any specific aspects of organisation. It simply invited staff to reflect on the highs and lows of their working lives via daily personal diaries.

Participants

An email invitation was sent out to all staff with an information sheet and consent form, asking them to produce a daily diary for 3 weeks which recorded their experiences and perceptions of the organisational changes brought on by the pandemic. The diary entries were initially requested as audio entries to minimise the demands of participation, but some entries were submitted in a written format according to participants' preferences. Participants who could not submit diary entries were sent one follow up email but were not pursued further due to the high levels of stress pertaining at that time.

Data collection

Data collection took place between April and July 2020. In total, 98 diary entries were produced by 13 members of staff from the Trust: 10 women and three men, aged between 24 and 61, see Table 1 for further details. References to restrictions to workspaces and related work experiences including relationships between staff were present in all the entries with the corridor being mentioned either directly or indirectly through references to the main hospital layout in 34 entries. There were no prompts about the corridor or about interactions with other staff: these were

TABLE 1 Participant job title prior to the COVID-19 pandemic and during the crisis, and number of diary entries submitted during the study.

Participant	Pre-Covid-19 role	Role during Covid-19 crisis	Number of diary entries	Working location
002	Manager (non-clinical)	Normal role	2	Hospital
003	Team lead	Team lead (clinical)	5	Hospital
004	Research nurse	Staff nurse	9	Hybrid
005	Ward clerk—Ward A	Ward clerk—Ward B	3	Hospital
009	Director	Normal role	17	Hybrid
014	Physiotherapist	Normal role	10	Hospital
015	Outpatient supervisor	Normal role and fracture clinic support	2	Hybrid
016	Department manager (non-clinical)	Normal role	14	Home
017	Business coordinator/admin team lead	Normal role with reduced hours	5	Hybrid
018	Appointments supervisor	Normal role with reduced hours	6	Hospital
019	Manager (non-clinical)	Normal role	14	Hospital
023	Doctor	Registrar medical cover	5	Hospital
026	Consultant	Normal role	6	Hybrid

initiated by the participants themselves, signalling that they played a key role in how individuals made sense of what their perceived as highs and lows during the early stages of the pandemic.

Diary entries have a rich tradition as a data collection method in social sciences (Elliott, 1997; Plummer, 1983; Zimmerman & Wieder, 1977) and offer opportunities to investigate phenomena from an insider perspective (Rauch & Ansari, 2022). Although the study involved limited numbers of participants, the richness of the data comes from the diary entries themselves, the variety of roles from across the hospital represented in the sample, and the way that participants shared their accounts with the researchers. Allowing the participants to complete their diary entries independently, at their own pace and in their own time, helped elicit rich data as close to the event as possible, with naturally emerging emphases according to the participant's perception of significance (Bolger et al., 2003). While some prompt questions were provided in this study, participants were encouraged to write freely about their daily experiences, and many participants included long accounts of personal experiences beyond their working day rather than just focusing on specific events at work. As previously noted, no specific prompts regarding the central corridor were employed.

Data analysis

Audio diary entries were transcribed verbatim by medical secretaries at the hospital. All identifying features were pseudonymised and participants were assigned numbers to protect

their identities. Once the observational period had closed, a reflexive thematic analysis was carried out on the diary data (Braun & Clarke, 2023).

Following preliminary analysis, it became clear that we needed further information about the hospital to inform our understanding of the context and specific events that entries referred to. Two interviews were carried out with a member of senior management (028, hybrid working) and a clinical member of staff/head of department (027, hybrid working) to accrue this. These interviews took place in June 2020, after the majority of the diary entries had been collected and although they too did not include any questions about the corridor or staff interactions within the hospital, both interviewees referred to the corridor when describing organisational changes brought about by the pandemic.

The juxtaposition of the themes emerging from the diaries and interviews made it apparent that the corridor had some social significance as it was seen as intertwined with staff identity and relationships. Further inquiry took place to better understand the social significance of this shared space. We carried out a qualitative content analysis (Elo & Kyngäs, 2008) of corporate emails which had been sent to all staff between 2020 and 2022, and which referred to the main corridor in terms of its social occupation. We excluded emails with no reference to the main corridor or where the reference to the corridor was seen as a mere location or for estates access. A total of 3 emails between April and September 2020, with an additional 4 from January 2021 to June 2022, referenced the social significance of the corridor and were thus included in this analysis. We also examined a range of historical documents about the hospital layout and its original design. These documents allowed us to triangulate our findings, adding rigour to our analysis.

Reflexivity

As data collection and analysis progressed, it became clear that this corridor was socially and culturally significant for hospital staff. As academics with no experience of working in this space, we were aware of our position as 'outsiders' and the implications that this may have for our understanding and analysis of such an organisationally significant space. To mitigate this, we invited the two staff members whom we had interviewed to join the writing team. Their involvement meant that they were able to comment on our interpretation of the data and add further context as needed to ensure the validity and rigour of the study. As noted above, both held managerial roles within the Trust at the time they were interviewed.

FINDINGS

Although not asked to write specifically about the hospital corridor, many entries included references to the physical layout of the hospital and, in particular, to the changes which had occurred to the hospital corridor due to restricted access and the social distancing policies implemented during the opening months of the pandemic. Diary entries commented in detail on the impact of space arrangements on staff relationships and how restricted access to the corridor, which was regarded as a key shared space, led to the development of social boundaries and feelings of isolation in staff who no longer could access it.

The corridor

The hospital is constructed around a 271 m long[1] central corridor, which is a key point of access for many of the hospital rooms and services (see Figure 1). While there are some departments located in satellite buildings onsite, the main hospital is held together by the corridor which is often referred to as the 'spine of the hospital'. This space is seen to facilitate a significant amount of staff interaction and is mentioned frequently in email staff communication.

'Typically, the corridor is busy and occupied simultaneously by different user groups' (027, manager, mixed work locations [MWL]). Staff use the corridor to go to their workspaces, other rooms, meet other staff, or go for lunch in the cafeteria/coffee shop. Patients use the corridor to access clinical areas and for rehabilitation. The central corridor is also accessed by a range of other members of the public, including volunteers who welcome visitors to the hospital and support patient navigation; patient visitors, including family, friends, and professionals such as Macmillan nurses, carers, and social workers; sales representatives and suppliers; and staff from other organisations who work with the hospital. Interactions within and between these groups is common. For members of the public, there are official points where they can ask questions or seek advice, but they can also ask volunteers, and are known to ask passing staff for help when needed.

Visitors to the hospital are free to enter the central corridor from multiple points and walk down the corridor unescorted to reach their desired destination. Doors along the corridor are normally kept open, both to wards and department rooms. There are few windows in the corridor as most of the space is taken up with access points to workspace, but there are two large areas of glass window-doors into small garden areas, and other smaller windows along the corridor. Many of these windows and external doors are frosted and obscure the view in-side/out.

Murals are on display along the corridor, and the space is also used for the dissemination of key information (clinical and non-clinical) to patients, visitors and staff. Seating is available on

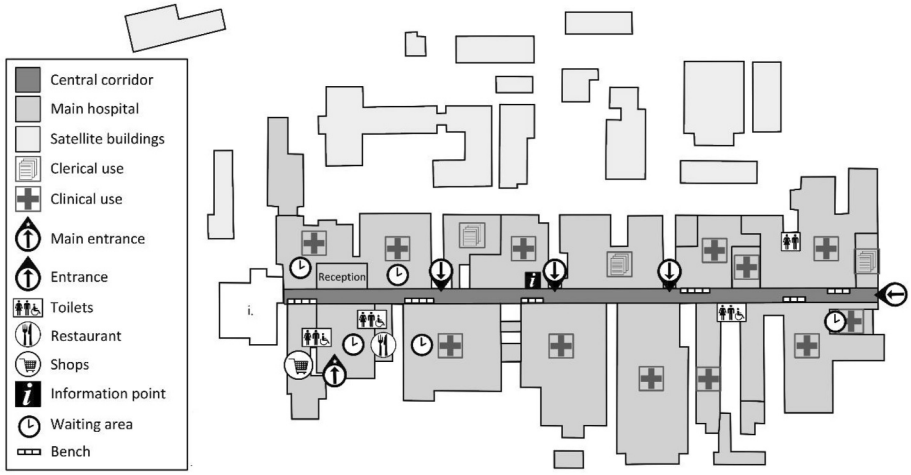

FIGURE 1 Plan of the hospital site highlighting the central corridor (dark grey). Larger waiting areas, like the main adult and paediatric outpatient and day case waiting areas are marked on this map; however, many clinical areas also have small, localised areas of seating for patients and visitors which are not presented here. This building was added to the hospital in 2022, after the observational period.

benches of three seats along the corridor, and waiting rooms for some units are stationed just off the corridor with additional seating as needed. Toilets are accessible along the corridor for staff and public use.

The corridor has been a prominent feature of the hospital since its initial construction in 1921. The hospital layout followed the architectural arrangement of the pavilion plan and Nightingale ward design which placed a large emphasis on ventilation, cleanliness and spatial conditions (Taylor, 1997) to allow fresh air to circulate into wards to counter the spread of disease (Glanville et al., 1999). Despite periods of rebuilding and modern redevelopment, the corridor continued to be the core or 'the spine' of the hospital, being a long-standing feature in the working lives of the hospital staff.

While the 'conceived space' (Lefebvre, 1991) of the hospital bears the imprint of the architectural tradition of the 1920s, the corridor is perceived in multiple ways by the staff. Staff members said that 'the collective life of the hospital occurs in the corridor' (028, director, MWL) and as such, it is a location where 'I had a very good sense of what the hospital was like' (027, manager, MWL). Before the pandemic, nearly all staff spent some time each day on the corridor. The corridor acted as a point of community, where people from different departments would meet up casually or on purpose and facilitated interactions between staff. The corridor was fondly integrated into hospital language and culture, acting as a point of reference and as a local unit of distance commonly referred to by staff in daily conversations '[she] will be walking 2.6 km, equivalent to seven laps along the hospital corridor'. (Email staff communication, April 2020).

During the pandemic, the hospital layout was radically changed, and this particularly affected the central corridor. Unlike the pre-pandemic state, access to the central corridor was heavily controlled, entrances to the central corridor other than the main entrance were locked with a combination code, to ensure that everyone came via the main screening desk (itself implemented due to the pandemic) and only a limited number of staff was given codes. Ward doors, typically left open pre-pandemic, were all closed and required sign-in to access, and the restaurant and other retail outlets were closed. Measures were introduced to promote social distancing in the corridor, the three-seat benches along the corridor had every other seat taped off, stickers were placed on the floor to demonstrate 2 m of distance, lanes were introduced to the corridor to direct users to stay on one side and posters were displayed to advertise keeping distance. Notably, many groups of people who previously inhabited the space were denied access, including patients (although some patients were still seen in the hospital, numbers were much lower and freedom for patients to move around or use the corridor was severely restricted). Friends and family were restricted from visiting patients; volunteers had access limited for their own safety; other role holders, such as carers, social workers, Macmillan staff, suppliers and sales representatives were also not allowed to enter the hospital and were absent from the social space.

During pre-pandemic times, the corridor facilitated the dissemination of formal information through posters and other visual displays, supporting inter-departmental discussion and information sharing across the hospital. The corridor also acted as a space where people could reflect on and challenge some of this information through informal discussions. Various staff lamented the loss of this social function of the corridor during the early COVID-19 period.

> No, the usual best source of communication is the "hospital corridor"! It's a shame that people are so spread out now.
>
> (016, manager, work from home [WFH])

> The corridor is a big conduit for a lot of conversations; it's not now because you can't stop because it's not secure.
>
> (028, director, MWL)

Soon after the restrictions were relaxed, senior management was keen to make use of the corridor to encourage conversations between multiple users and investigate their wellbeing:

> Corridor Conversations are a quick and simple way to pulse-check how staff, volunteers, patients, visitors, students, contractors, and others are feeling and will give our Senior Leadership Team valuable insight into the mood of the organisation. We know that we are all currently working in really difficult times, and we hope that staff will use this opportunity to make a positive impact across our organisation.
>
> (email staff communication, February 2022)

This return to pre-pandemic social norms in the corridor could be seen as repair work by management aimed at supporting both formal and informal communication activities to restore interrelations among and between staff and other corridor users. It was hoped that through such initiatives the corridor would provide yet again the symbolic and social resources needed to rebuild lost sociality and encourage a multiplicity of experience and that its emptiness could be filled again with laughter, chatter and human interaction.

The 'uncanny' corridor and the development of social and moral boundaries

It was evident within the diary entries that the physical restrictions brought in due to COVID-19 changed the corridor as a 'conceived and perceived space' (Lefebvre, 1991), puncturing the taken for granted social norms and behaviours that gave the corridor its distinct identity as 'the spine' of the hospital before the pandemic. Staff were no longer able to interact with each other in the corridor, and the resulting erosion of the existing social fabric resulted in the development of ostensibly new boundaries between staff. Staff working from home discussed their sense of disconnection from the hospital as a physical space and the negative impact that not being able to engage in the social life of the hospital, in ways that they once took for granted, had on both work relationships and on themselves:

> I do miss being in the office and I find that communications with other departments has suffered during this period – the corridor conversations, people chatting things through. [...] We'd done a lot of work to break down the barriers with other departments over the last year or so but I think we've taken a few steps back on this journey by not being able to work on site.
>
> (016, manager, WFH)

Many participants discussed ways in which they tackled spatial disconnection and attempted to overcome physical distance, for example, via WhatsApp group chats. The contrast between the pre-COVID-19 workplace, and the workplace during the early COVID-19 period, featured prominently in many diary entries. The absence of staff was very significant for those few individuals who were allowed to work on site (WOS), and the empty corridor served as an

immediate reminder of estranged social norms and behaviours that were difficult to comprehend or accept as the new status quo. The corridor was described as a 'haunted' place (027) that lacked social vibes, which was exacerbated by the social distancing guidance encouraging those working on site to stand at least 2 m away from each other.

> It is strange when you walk past someone, we all kind of step back and shy away, I find this more noticeable at work when walking on the corridor.
>
> (003, team lead, work on site [WOS])

> [and the corridor is] a space of encounter between people who are from different areas. And I think it's a gauge, I would reckon that I could walk the length of the hospital down the corridor and I had a very good sense of what the hospital was like because you get, you get the body language and the communication of the people who are on it, but you also get a sense of how busy it is. So a quiet corridor feels very strange. It almost sort of feels haunted in the sense of what, what's gone? All this liveliness and this busyness? All that activity that should be there, isn't there? And that- and you get that very quickly. More quickly, I think from the corridor than you do from the wards and the other areas.
>
> (027, manager, MWL)

Descriptions of the physical separation between staff working on site and those working at home were often accompanied by the perception that staff working from home were not working as hard as those who remained on site, adding a moral dimension to the social boundaries created by the physical separation. Some who were physically connected to the main hospital space felt that they were 'unfairly treated' (05, ward clerk, WOS) compared to those working from home whom they perceived to have lower workloads.

> Some people are working from home and there are some who don't seem to be doing an awful lot and this has been picked up by their colleagues on site.
>
> (018, appointments supervisor, WOS, reduced hours [RH])

Those working from home, on the other hand, appear to downplay the moral boundaries created by space separation, arguing that teamwork can prevail irrespective of spatial positioning.

> There's a nasty undercurrent at the minute that I feel that is targeted towards those of us who are home working. [...] One particular staff member keeps questioning this on a regular basis and another has commented a few times that those based on site are working harder than those home working. This is a busy time of year for us and I am proud as a team of what we've achieved during this period.
>
> (016, manager, WFH)

The central corridor had, however, created social boundaries prior to the pandemic. For example, one participant discussed the separation of satellite buildings (see Figure 1) from the central corridor and the implications that this had for departmental identity and perceived contribution to and consideration within decision-making, highlighting the long-term impact spatial disconnection can have on work relationships.

> There has always been challenges of being a small team based away from the main corridor [...] the nature of the building means we are fairly isolated from the main hospital, but also we tend to get forgotten about when decisions are made, and communication is very ward/clinically based.
>
> (002, manager, WOS)

Another participant who worked in a department in a satellite building initially appeared keen to keep those working in other clinical departments at a distance, only to then question the morality of her approach in terms of the negative impact it might have on the hospital as a whole.

> So and then I think [...] how much do you fight off other people? Do you function as a department or do you function as an organisation? So I tend to want to defend our patch, we've had quite a lot of people wanting to use our rooms because we're off the main corridor, a safe space, we're potentially very clean so we could open the doors to other people coming in [...] but the trouble is, once they come in, you can't get rid of them. So on the whole, I've been chasing them off and growling at people at the door. But then you think, well, actually, is that a good way to manage things when you've got to consider the whole hospital?
>
> (027, manager, MWL)

A participant working as a physiotherapist discussed their experience of temporary separation from the central corridor during the observational period when their normal place of work was closed off for biosecurity. The central corridor acted in the past as a conduit for seeing multiple patients from different wards and for accessing the gym for patient rehabilitation purposes, but during the pandemic physiotherapists were based on a single ward and took on board jobs that were not in their remit such as helping nurses and cleaning. In addition to feeling disconnected from their usual patients and the central corridor, they also talked about feeling disconnected from hospital policies and hospital life more generally.

> To be honest with you the wider hospital [from our perspective] doesn't really affect us. We're almost like a separate entity in the hospital at the moment because generally we don't come off the ward other than to go for a meeting. Normally we would be on and off different wards getting our patients to and from the gym area but since lockdown we haven't been able to do so.
>
> (014, physiotherapist, WOS)

While spatial separation from the corridor was associated with social boundaries, working on site, with its continued face-to-face access to other staff and to the main corridor, was broadly associated with positive work relationships akin to or even better than those in existence pre-COVID-19. Participants working on site described high levels of camaraderie and increased empathy for one another, describing relationships as 'strong' and 'jolly', with 'people working together in a way they wouldn't normally':

> There's a really good feeling at the moment in the hospital, [...] the camaraderie is very very good, people always stop and talk, people are very chatty, people smiling

> when they see each other on the corridor. It is a very much, we're all in this together type thing.
>
> (005, administrator, WOS)

These corridor mediated connections were associated with increased positivity within the diary entries, with many respondents highlighting the importance of shared spaces to talk about current events and or give support as needed.

DISCUSSION

The data analysis suggests that the central hospital corridor was of immense social significance to staff. This significance was brought into sharp relief by a general lack of physical description of the corridor in the diaries, as entries focused instead mainly on its influence on staff relationships and behaviour. Entries emphasised the multiplicity of relationships and the diversity of practices and experiences mediated by the corridor prior to the pandemic. In contrast to this picture, during the early stages of the pandemic, the empty corridor was seen to acquire 'uncanny' characteristics resulting from the physical restrictions imposed on access to (shared) work areas, which led to staff being unable to occupy the space.

Spatial changes/restrictions to working locations and shared organisational spaces affected how staff could or should interact with each other, impacting the lived experiences of both staff who worked on site and those working from home. As the sociality of the corridor's life became eroded and the possibility of developing embodied human relations in the corridor was significantly reduced, the corridor acquired a heightened meaning in people's diary entries, making it obvious that the corridor remained central to sensemaking. Indeed, we had not asked specifically for stories about the corridor and yet such stories feature prominently in the diary entries and the interviews. The presence of the hospital corridor in the daily social construction of staff meaning suggests that the corridor was seen as a social entity rather than (just) a physical space; a social entity which acquired its lived experience and meanings through the (lack of) performance of social relations within and around it.

Prior research studies highlight shared organisational space's roles in health-care settings in the provision of support, empathy and social connection, and in the facilitation of the collective sharing of difficulties (Sailer, 2022). As access to shared spaces became restricted or denied, ostensibly new social and moral boundaries emerged, resulting in ingroup-outgroup positioning, notably across the divide between on site and home workers. Outgroup members discussed how working from home restricted them from communicating with other staff, describing how missing out on corridor conversations made them feel isolated. In contrast, ingroup members drew attention to increased connection and camaraderie amongst staff on site, despite physical changes to the central corridor's layout and access. This divide was accentuated by moral assumptions with some staff working on site perceiving that home workers were not working hard enough, a claim which was disputed vociferously by the latter. Similar dichotomous perceptions have been reported in the context of other sudden crises. For example, a study of refugees in Belgium also found a dichotomy between the negative perceptions of the public regarding refugees and refugees' own perceptions, which emphasised moral strengths and willingness to work hard in apparent contrast to other groups (Vandevoordt & Verschraegen, 2019).

Health-care organisations depend on harmonious relationships between staff (Currie & Brown, 2003) and when boundaries emerge along the lines of on and off site working practices, these can infringe upon an organisation's ability to work effectively, a finding which is regularly documented in research studies about remote working (Di Domenico et al., 2014; Lervik et al., 2010; Swart & Kinnie, 2014; Tempest & Starkey, 2004). Good clinical outcomes rely on effective communication between staff and between staff and patients to ensure the successful coordination of care (Pincock, 2004). Obstructing or limiting access to shared spaces where staff can interact and develop meaningful relationships among themselves and with relevant other parties, reduces the opportunities for effective coordination and communication (Long et al., 2007).

Drawing on Lefebvre's three-dimensional approach to space, we suggest that the conceived space of the hospital corridor as developed by planners, architects and designers is crucial in defining what is socially acceptable in terms of flow of people and materials and in terms of social interrelations among the corridor's various occupants. Built in 1921, the original hospital design favoured the arrangement of the pavilion plan and Nightingale ward design which encourages single-story ward blocks, generally placed at right angles to a *connecting corridor* (King, 1966). In 1966 a spinal injuries unit was opened at the hospital to treat, care for, and rehabilitate spinal injury patients. In 1975, a rehabilitation unit was built which extended the central corridor, creating a new east entrance. In 1991 additional theatres were added in the, then extended, theatre complex. More recently in 2023, the Headley Court Veteran's Orthopaedic Centre was opened, and the Trust is currently extending its theatre complex further, all of which are connected to the original hospital via a continuously expandable corridor. The relationship of the central corridor to the main hospital building has been maintained throughout all design changes, as the 'spine' remained at the core of the main hospital which connects the clinical spaces, administrative offices and areas for public use.

Much of the design of pavilion wards derives from work in the military when hospitals were set up within barracks. Nightingale's work in Scutari Barrack Hospital is referenced by Lefebvre (1991) as an instance of how individuals affect and are affected by their built environment. Nightingale's influence on hospital design makes apparent the connection between behaviour, space and health outcomes (Hammond, 2005). This focus on design and function (i.e. the conceived space) influences the frameworks of how people are able to occupy and work within the corridor (i.e. the perceived spaces), illustrating a continuity of focus on disease spread rather than a more holistic view of caring for humans that recognises the importance of connections within the space. More recent literature which explores hospital design in times of COVID-19 suggests that architectural plans remain aligned to early designs, considering primarily the clinical implications of the design features and thus adopting a clinical social order. Whereas the pavilion plan and Nightingale wards focused on minimising the spread of infection in the design of hospitals, more recently, the attention is turning towards 'corridors [being] designed to discourage informal conversations by eliminating nook with bench or ledge' (Emmanuel et al., 2020, p. 1702).

The design focus, or how the space is conceived, dictates how people are able to act and engage within the space, providing foundations for the perceived space. The design of new hospitals in which clinicians, patients, relatives, materials, technologies and spaces are effectively brought into line to treat people who are unwell, favours the clinical ordering of space. However, hospital corridors contain multiple processes of social ordering which are emergent and open to constant reinterpretation, reconstruction and reconfiguration (Bell, 2018). This process of social reordering was made more visible by the pandemic, in that a space which was

commonly occupied and which promoted staff interaction and communication was radically altered at the start of the COVID-19 pandemic. The extreme restrictions placed on the corridor to maximise social distancing reinforced the original design of the building and punctured the potential of the corridor to encourage multiplicity of experiences in situ. It also reinforced the salience of a clinical perceived space whose main purpose was to prevent infectious diseases. This had notable consequences on the lived space of the corridor, leading to disconnection and to the development of ostensibly new boundaries across the workforce. While it was apparent in the data that the corridor acted to disconnect some staff and departments even prior the pandemic, there were concerns that the new social and moral boundaries triggered by the COVID-19 restrictions to accessing the corridor on such a large scale may lead to irreversible changes in staff relationships even when everybody returned to working on site:

> I think that this separation is going to have a long-term effect on staff once all of this is finished and we do return to normal. This is going to cause a big divide in a lot of areas within the Trust in ways that we cannot even imagine now.
>
> (005, ward clerk, WOS)

Notably, it was only when the social distancing restrictions were reduced that this space was able to be reclaimed socially and we saw how management used the main corridor to run the 'corridor conversations' in 2022. These conversations could be seen as an example of the Trust reflecting on the reality of the lived space as an opportunity to use the corridor for staff well-being; however, in doing so, they also carried out repair work to shift the focus from infectious disease control to the pre-pandemic focus on social interaction and wellbeing amongst the staff and the reestablishment of human connections.

CONCLUSIONS

Drawing on Henri Lefebvre's (1991) sociology of space, we investigated the social and symbolic significance of a central hospital corridor for staff relationships within an English NHS Trust, during the onset of the COVID-19 pandemic. The study drew attention to the relationship between its design (conceived space), the social norms embedded in it (perceived space) and the lived experiences of the hospital staff (lived space). We found that the spatial restrictions imposed by COVID-19 led to the development of ostensibly new social boundaries between staff working on site and staff working from home. Diary entries suggested that some of these new social boundaries were freighted with moral weight by staff working on site which was seen to accentuate existing spatial divisions and lead to negative long-term consequences for the organisation.

Times of crisis can change the focus of a space, and this alters how people perceive and ultimately the way that they are able to inhabit and interact with and within the space. These findings add complexity to Lefevre's sociology of space because they consider how external jolts, such as the rapid onset of the COVID-19 pandemic, affect organisational space and the lived experiences of the occupiers. We considered how the three layers of space—conceived, perceived and lived—interact with each other, and are affected by context outside of the space itself. Space, we see, is not solely limited to the original conceptual designs and intentions of the architects but can change and adapt to pressures and regulations from external factors and revert when those pressures are removed. However, it is important to consider the reverberant

impact that these changes can have on the people who inhabit the space, on their relationships and wellbeing.

The use of personal diaries to uncover the nature of shared spaces in a hospital environment provided a unique opportunity to trace changes in the social role of the corridor during the early stages of the pandemic. The diary exercise was used by many participants for therapeutic purposes, to help them to make sense of and come to terms with the physical, social and symbolic restrictions imposed on their working lives. Yet, they were undoubtedly affected by the knowledge that the entries would be read by both researchers and managers and indeed entries included comments which referred to participants' awareness that researchers would be passing anonymised information on to the directors, for example,: 'management aren't going to like the fact that I've said this' (016). It is possible that the original positioning of this research study as a management exercise will have influenced the way participants completed their diary entries. While they were encouraged to write a daily narrative of work experiences, many entries moved beyond this to include information about personal life such as family matters and personal wellbeing which reassures us that participants did not feel unduly restricted in their responses. Nevertheless, this potentially remains a limitation of the study which we duly acknowledge. As indeed is the fact that we only have the experience of hospital employees captured in our data, rather than reflections on the changes in use of the corridor of a full gamut of its 'normal' inhabitants.

A number of practical and policy implications arise from our study. The central hospital corridor has been shown to have significant consequences for staff relationships within the NHS Trust under the study. For those staff who were able to continue working on site and maintain space mediated relationships with colleagues, access to the corridor, however restricted, offered opportunities for increased staff camaraderie and provided a support network through a very difficult period. However, we also saw the symbolic and practical impact of not being able to access the central corridor, which led to feelings of isolation contributing to additional stress and changes in the way that people away from the main corridor perceived and responded to events around them. In a health-care environment, emotional impact such as this can have wider ramifications on the way staff perform their duties towards patients, affecting quality of care for patients, staff absenteeism, staff security and wellbeing, and the ability of the hospital to meet care targets (Dixon-Woods et al., 2014; Kline et al., 2019; West et al., 2017). Therefore, it is important for hospitals to consider how spatiality can affect staff relationships. The findings in this article are specific to a specialist orthopaedic Trust and cannot be extended to all hospital corridors; however, they may offer policy insights relevant to other NHS Trusts or public sector organisations about the impact that shared space can have on staff relationships and interactions.

AUTHOR CONTRIBUTIONS

Alice Faux-Nightingale: Conceptualization (equal); data curation (equal); formal analysis (equal); writing – original draft (equal); writing – review & editing (equal). **Mihaela Kelemen**: Conceptualization (equal); data curation (equal); formal analysis (equal); supervision (equal); writing – original draft (equal); writing – review & editing (equal). **Simon Lilley**: Formal analysis (equal); writing – original draft (equal); writing – review & editing (equal). **Kerry Robinson**: Conceptualization (equal); data curation (equal); writing – original draft (equal); writing – review & editing (equal). **Caroline Stewart**: Conceptualization (equal); data curation (equal); formal analysis (equal); funding acquisition (equal); writing – original draft (equal); writing – review & editing (equal).

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CONFLICT OF INTEREST STATEMENT

The authors declare that they have no known conflict of interests.

DATA AVAILABILITY STATEMENT

The research data of this study are not available as participants did not consent to sharing their data in this way.

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ENDNOTE

[1] Communications within the Trust mention a range of distances when referring to the length of the corridor and the most common perception by staff is that the corridor is a quarter of a mile long (402 m). However, when we measured it, we found it to be 271 m.

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