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The impact of shared social spaces on the wellness and learning of junior doctors: A scoping review.

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Abstract

Introduction: Impaired wellness among junior doctors is a significant problem. Connectedness and sense of belonging may be important factors to prevent and reduce mental ill-health. Shared social spaces in which healthcare staff can meet informally are thought to improve connectedness, however these spaces are in decline. It is unclear what is known about such spaces, how they are used and their impact on wellness and learning. This study aims to identify and synthetise available literature that informs our current understanding of the nature of shared social spaces as an intervention impacting wellness and learning of junior doctors.

Methods: A scoping review was conducted following the Arksey and O'Malley five-step framework. The review question is 'What is the evidence of the impact of shared social spaces on wellness and learning of junior doctors?' We searched 5 databases; MEDLINE, EMBASE, APA PsychINFO, APA PsychExtra and ERIC. We conducted thorough supplementary searches in addition to the database search.

Results: We included 41 articles. These were predominantly letters, commentaries and editorials with only five primary research studies. We identified four significant common attributes of shared social spaces which can be credited with positive impacts on wellness and learning. 1) Informal; fostering connectedness and belonging, trust and teamwork and offering access to informal help and support. 2) Safe; allowing reflection, debrief and raising of concerns. 3) Functional; there is planning of clinical care activity, sense of control and engagement from users and provision of refreshment. 4) Legitimate; regular maintenance and use of shared social spaces affect role modelling, sustainability and wellness culture.

Discussion: This review identified several ways in which shared social spaces impact positively on learning and wellness. There is little primary research in this area. Future research would be useful to further examine how and why this works.

Introduction

Impaired wellness among junior doctors continues to present a major issue to healthcare systems worldwide and has been called a wellness crisis.[1] Connectedness and sense of belonging may be important factors to prevent and reduce mental ill-health and shared social spaces in which healthcare staff can meet informally are thought to improve this connectedness.[5] However, shared social spaces appear to be in decline[6] and it is unclear what is at risk of being lost with respect to their impact on wellness and learning.

The causes of impaired wellness are complex and multifactorial, justifiably demanding significant research interest. This often involves testing of individual interventions; an approach which has received a word of caution from Bynum et al who call attention to the pitfall of solutionism.[1] Before impaired wellness can effectively be addressed, the problem itself needs to be well defined and better understood. In a recent meta-analysis of 78 studies of physician 'wellness', 67 studies (86%) did not give a definition of the term[2]. Researchers have been urged to consistently use clear definitions of how they view wellness.[1] Wellness is a complex concept, which has physical, social, intellectual, emotional and spiritual dimensions. We follow suit in using the definition of wellness by Corbin and Pangrazi; 'A multidimensional state of being describing the existence of positive health in an individual as exemplified by quality of life and a sense of well-being.'[4]

A recent evidence synthesis of interventions to minimise doctors' mental ill-health has identified processes contributing to impaired wellness.[5] These include normalization of a high workload, stigmatization and hiding of vulnerability, loss of autonomy and isolation.[5] Importantly, connectedness between colleagues and sense of belonging appear to be one of the most important factors to prevent and reduce mental ill-health.[5] This can inform strategies for targeting interventions to improve wellness. Of particular interest, shared social spaces in which healthcare staff can meet informally are thought to improve connectedness[5] and rest spaces for junior doctors have been the subject of much recent discussion[6,7]

However shared social spaces appear to be in decline. Nearly 20% of hospitals in the UK do not have a common room or doctors' lounge, according to 2019 data from the British Medical Association (BMA)[6]. In response, many reports now recommend that doctors need a space to rest in the workplace and recent UK government funding was allocated to improving facilities to reduce fatigue.[8] Currently recommendations focus on rest but it has long been believed that shared social spaces offer more to doctors than just a place to rest. Decisions about how to spend government funding were made in consultation with junior doctors, who often opted to improve their hospitals' "doctors' mess."[8] The "doctors' mess" is a term used in the UK to describe 'a secure social centre that caters to the needs of junior doctors in the UK, which may include lockers, computers with internet access, TV, notice boards, course advertisements and a kitchen area with catering.'[9]. Many lament the loss of spaces like the "doctors' mess", calling it an unsung resource and speaking of its educational value to junior doctors.[10,11]

The 'backstage' is a construct in Goffman's theory of social theatre,[15] which introduces the idea that social life is a performance carried out by teams of participants. It is well known that much of workplace-based learning is informal.[12] The 'front stage' is where the 'performance' is given in front of an 'audience' and an individual's behaviour conforms to the expected norms and values of the setting where it occurs. In the 'backstage', people can interact away from the gaze of the audience, where (according to the theory at least)

they are freed of those expectations and their behaviour may be more relaxed.[15] In healthcare, 'watercooler' learning and corridor teaching have been described as examples of informal learning, where 'backstage' spontaneous interactions with others allow knowledge sharing and prompt solution finding.[13,14] Sinclair developed Goffman's work[16] in the context of undergraduate medical education and introduced the idea of official and unofficial facets to the front and backstage. In the official backstage area, learning activity may be out of view of patients and educators, but forms part of the curriculum in a more informal way.[16] Lewin and Reeves[17] find that in hospitals front and backstage activities are structured by physical space. Backstage spaces can sometimes be temporarily created, by moving away from patients, behind physical barriers or into a corridor. [17] In contrast, shared social spaces such as the 'doctors' mess' are permanent spatial resources where backstage learning may take place.

In response to warnings of solutionism when developing interventions to tackle impaired wellness[1] and the continued struggle for shared physical spaces, it is critical to investigate the impact of shared social spaces on both wellness and learning. It is unclear what is currently known about the characteristics of shared social spaces, how they are used and what their impact on wellness and learning is. Since the topic of wellness and learning in shared social spaces has not previously been formally evaluated and is therefore undertheorised, a scoping review was selected to discern what is known, synthesise the findings, and map areas for future study.

In this manuscript we describe the process of locating, analysing and synthesising the relevant literature, drawing on Goffman's theory of social theatre as inspired by three of the included research papers which used this theory.

Methods

Aim

To identify and synthesise available evidence that informs our current understanding of the nature of shared social spaces as an intervention impacting wellness and learning of junior doctors.

Study design

Informed by Arksey and O'Malley[18], a scoping review was selected to describe the extent, nature and range of literature on this topic. This approach provides a mechanism for summarizing and disseminating research findings in response to an exploratory question. The review was conducted following the Arksey and O'Malley five-step framework as proposed by Levac et al.[19]

1. Identifying the research question

The question is formulated around the Population Concept Context framework[20]. The population of interest is junior doctors. Although surrounded by some controversy, the term junior doctor is generally accepted to mean a qualified doctor practising at any stage between graduation and completion of specialist postgraduate training. We use this term rather than doctors in training since we also include 'non-training' doctors who are not enrolled in a formal training programme (Table 3). This population may share spaces with medical students, the wider multidisciplinary team, consultants and qualified GPs.

For context, there are multiple types of communal spaces in any working environment, which are referred to using a wide array of terms. For the purpose of this review, we propose the term 'shared social spaces' with a working definition shown in Table 1. The review question is 'What is the evidence of the impact of shared social spaces on wellness and learning of junior doctors?'

2. Identifying relevant studies

To ensure a comprehensive review of what is known, we developed a thorough search strategy. We attended a PenARC Evidence Synthesis Team Search and Review clinic to discuss our approach to developing the search with an information specialist and a review expert. We carried out a systematic online search (in June 2021) of 5 databases; MEDLINE, EMBASE, APA PsychINFO and APA PsychExtra via Ovid and Education Resources Information Centre (ERIC) via EBSCO host, selected to represent a range of health and social science articles and perspectives.

Given the broad range of literature that might be relevant to answer the research question, search terms were derived from 'Population Concept Context' criteria (Table 2), rather than the more traditional Population Intervention Control Outcome, although the search was not limited to qualitative studies. Several synonyms were required for identifying junior doctors and social spaces in different geographic locations (Table 2). Terms were identified from titles, abstracts and indexing terms of relevant papers identified through background reading and pilot searches. We mapped keywords to relevant MesH terms, such as Mental Health, Medical Education and Professional Development. Possibly due to the novelty of the question, results from pilot searches contained few empirical studies and many letters and perspectives. The latter often appeared to be authored by junior doctors themselves and since they might therefore offer the perspectives of our population of interest we included these articles.

We conducted thorough supplementary searches in addition to the database search. Backwards and forwards citation chasing was used to screen for any relevant articles cited by included articles or citing them. We also screened any reports cited in the included articles against eligibility criteria. Key journals were hand searched to minimize the risk of missing important and relevant articles that are poorly or inaccurately indexed or unindexed. The contents of the last two years' (2019-2020) issues of the Lancet and BMJ were screened for relevant articles, as well as last three years (2018-2020) for the following Medical Education Journals: Academic Medicine, BMC Medical Education, Medical Education, Medical Teacher, Journal of Surgical Education, Teaching and Learning in Medicine, The Clinical Teacher. Conference proceedings from well-known medical education conferences were also searched for relevant abstracts, including conference booklets from the last three years' annual meetings (2018-2020) of the following associations: Association of Medical Education in Europe (AMEE), Association for the study of Medical Education (ASME), Developing Excellence in Medical Education Conference (DEMEC) and International Association of Medical Science Educators (IASME).

3. Selecting the studies

All articles from the database searches were imported into EndNote and supplementary search results were manually entered before duplicates were deleted. Two reviewers independently screened titles and abstracts against pre-existing eligibility criteria (Table 3) and assigned them to categories of Include, Potentially Relevant and Exclude. Full

text copies of any papers deemed suitable for inclusion or potentially relevant based on title and abstract screening were located and independently reviewed by two researchers, with disagreements resolved through discussion with all authors.

4. Charting the data

A data extraction form to chart the data from all eligible articles was iteratively developed. Firstly, demographic data (e.g., article type, year and location of publication) was noted for 'descriptive-analysis.' Any experience related to wellness or education was extracted from the identified literature. This was measured, reported and described in various ways, reflecting the heterogeneity of the included articles. For example, results could take the form of themes, quotes, recommendations and author interpretations and explanations. We read each included article line by line, to extract the key findings, experiences and concepts relevant to the research question. Throughout the process, columns on the data extraction form were refined as necessary following team discussion. We did not assess the quality of studies, in-line with accepted scoping review methodology.[20]

5. Collating, summarizing, and reporting the results.

We synthesised the findings using qualitative thematic analysis[21] as a framework for understanding the set of experiences related to wellness and learning in shared social spaces. Thematic categories (e.g. types of spaces, processes impacting wellness and learning) were iteratively identified and discussed at regular whole team meetings.

Team reflexivity

We acknowledge that our subjective experiences have shaped our perspectives on shared social spaces and subsequent interpretations of their impact on wellness and learning. Our team is based in the UK but originates from three different countries and collectively we have worked across a variety of international settings. There is a clinician (CU), sociologist (DC) and professor of medical education (KM). CU is a specialist trainee in anaesthesia with protected time to undertake medical education research, whose interest in shared social spaces began with direct experience of their value to workplace-based learning. Our collective research interests include mental ill-health as it affects doctors in training and complexity of medical education interventions. KM and DC are experienced researchers and recently collaborated on a realist review of interventions to minimise doctors' mental ill-health.[2] There were regular meetings of the whole author team to discuss and shape all stages of the project design and interpretation.

Results

Descriptive summary

We included 41 articles (PRISMA flow diagram Figure 1), published between 2003 and 2021: 31 from the UK, 7 from the US and one each from Canada, Australia and the Netherlands (Table 4). Twenty were published in 2019, of which 11 were in response to the publication of the British Medical Association (BMA) Fatigue and Facilities charter[35] followed by news of UK government funding. There were five primary research studies: two ethnographies studying informal learning in backstage spaces[13,30] and three studies

evaluating wellness programmes that include a shared space[31-33]. There were no literature reviews or evidence syntheses identified by this study. We included four reports from governing bodies that make recommendations for a 'doctors lounge,' 'physical spaces to take breaks' or 'suitable accessible spaces in which to socialise, share, discuss experiences and rest away from patients and the public.'[24,25,34-35] The remaining 32 articles were opinion pieces, letters or commentaries.

The most commonly described space in the included sources was the 'doctors' mess'[7,8,10,25,35,36-47], which resembles the American 'doctors' lounge'[26,50-52], also called residents'[32,33], physicians'[34] or surgeons' lounge.[22] Multidisciplinary spaces were described as 'staff lounge',[13] 'staff room',[7] 'coffee room'[23], 'tea-room'[30] or 'common room'.[6] Spaces were also more generally referred to under wider umbrella terms, instead of mentioning a particular room e.g. 'rest space',[7] 'rest facilities',[53,56] 'communal area',[54] 'liminal spaces',[13] 'third space',[47] 'in between spaces'.[27] Sometimes the physical space was not clearly described, but reference is made to a space in time to meet physically, which implies the existence of a physical space e.g. coffee breaks,[28,55] lunch clubs.[29]

The focus of included articles was often to lament the loss of shared social spaces,[26,43,49,52] for example in a hospital,[57] and to report examples of junior doctors or volunteers improving their own space.[7,39,46,48,50,51] Authors of discussion papers ranged from current junior doctors, to retired clinicians reflecting on their training.

Thematic synthesis

Four broad themes were identified through the qualitative thematic analysis, centring around the attributes of shared social spaces: informal, safe, functional, legitimate. The subthemes describe the impact of each attribute of a shared social space on wellness and learning (Table 5). There is much interrelation between themes and subthemes, for example the trust developed through regular informal social interactions could lead to individuals feeling increasingly safe and confident to raise concerns related to patient safety (Quote 2c, Table 7).

Theme 1. **Informal spaces**

The informality of a shared social space appeared to be fundamental to its ability to support learning and wellbeing. By nature of being away from the clinical 'frontstage' shared social spaces seem to allow individuals to interact informally outside of the constraints of their usual roles in the clinical environment. Further, interacting face-to-face allowed social conversations to be 'freewheeling' and unguarded[22]. Shared social spaces were referred to as 'backstage'[13,23, 30, 27] reflecting the degree of performance that must be enacted in the clinical environment, either for patients or for colleagues in the medical hierarchy. The difference between front stage and backstage is well explained by Hunter and Scheinberg; '*in the [front stage] each clinician has a specific professional role with accompanying tasks to perform in relation to the patient. In the backstage the individual professional identities become less significant as the collegiality of the group emerges in the informal social setting.*[30] Further exemplary quotes that support Theme 1 are presented in Table 6.

Spontaneous social interaction beyond usual roles or hierarchies afforded an opportunity to foster connection and form bonds within teams (Quote 1.a, Table 6). The resulting connectedness and belonging (Subtheme 1.1) seemed to protect against feelings

of isolation and helped the development of coping mechanisms to deal with stress (Quote 1.b). The formation of meaningful personal relationships fostered trust between colleagues, which was reported to have positive impacts on teamwork (Subtheme 1.2) and to allow resolution of minor disagreements and conflicts without formal escalation (Quotes 1.c, 1.d). This is further facilitated by the ability to interact face to face allowing unguarded "off the record" conversations (Quote 1.e).

Shared social spaces provided access to help and support (Subtheme 1.3). There were many reports of doctors discussing difficult cases with colleagues and asking for help (Quote 1.j). Group discussions drew on a breadth of experience (Quote 1.g) and exposed learners on the periphery to cases they may not have had the opportunity to be directly involved with (Quote 1.h). Further, when informally seeking help there were no pre-determined boundaries and there was an opportunity for emotional and social support (Quote 1.f). Informal learning was further encountered in subsequent themes. A result of readily available help and support was that some doctors described having a 'working lunch.'[54] Although not reported as a drawback in this example, it suggests there may be limitations on the opportunity for uninterrupted rest in some spaces.

Theme 2. **Safe spaces**

It was widely recommended that junior doctors need spaces for rest that are 'psychologically safe'.[24,25] Attributes of shared social spaces that contributed to this safety identified in this review are:

- being away from the clinical 'front stage' where, confidential clinical conversations can be held without being overheard by patients or relatives
- being a space where there is no threat of inspection, regulation or monitoring, allowing doctors, and sometimes others, to freely reflect and be together
- being a space where those who share it have a shared frame of reference.

This context of safety, coupled with the connectedness and trust afforded by informality allowed learning, de-stressing and improved patient safety through reflection (Subtheme 2.1), debrief (Subtheme 2.2), knowledge sharing, and a reduction of barriers to help seeking and to raising concerns (Subtheme 2.3). Through revisiting and retelling of previous clinical encounters in shared social spaces, doctors were reported to reflect on their practice with other doctors or members of the multidisciplinary team who have experience in the same field (Quotes 2.c, 2.d, 2.g, Table 7). This complemented exchange of knowledge and fostered informal learning. The psychological safety of shared social spaces such as the tearoom allowed staff to debrief by telling a story or talking through and sharing emotional aspects of an experience, with less fear of judgement (Quotes 2.a, 2.b). Having an opportunity to 'talk the affective talk' allowed junior doctors to 'free (themselves) up from the affect - to disembody it, to take a rest before moving back into the front stage again'[30] (Quote 2.h). Sharing these experiences may help develop common coping strategies and help doctors feel that they are not isolated (Quote 2.e).

Venting concerns in the safety of a shared social space allowed building of consensus. When risks or concerns were collectively agreed 'backstage', they were more likely to be further escalated or communicated to service leaders (2.f, 2.i). This in turn can have a clear impact on and benefit for patient safety.

Theme 3. **Functional spaces**

Shared social spaces may be viewed by management teams as a productivity sink.[10,26] However, shared social spaces were also often reported to positively contribute to the quality and delivery of patient care.[13,30,54] The significant attributes of shared social spaces that contributed to functionality as described by the included papers, were proximity to the clinical workplace, accessibility and user ownership.

Close proximity to the clinical 'front stage' allowed a situated and prompt opportunity for teams to informally reflect on and improve clinical decisions throughout the course of a working day (Quote 3.a, Table 8). Further, shared social spaces were used for planning of clinical activities (Subtheme 3.1), including testing ideas and responding to changes to deliver solutions and positively impact patient care in real time (3.b, 3.c). In combination with the informality and safety of a space, team members were likely to be empowered to reflect on their own or their colleagues' competence and skills while planning specific tasks, thereby further improving learning, as well as quality and safety of patient care.

There was often a high level of user ownership of and engagement (Subtheme 3.2) with the acquisition and maintenance of shared social spaces. Doctors reported that this provided a much needed sense of control in a workplace which was often characterised by governance and processes which tend to be beyond their control and were sometimes stress inducing (3.f). When a space was under the control of its users, it was more likely to be fit for purpose, and increased user engagement made it more likely to be effective as a wellness intervention (3.d).[5] During the coronavirus pandemic, there were vacant workspaces in some hospitals, which were temporarily 'seized' by junior doctors 'with the blessing of management' and resulted in junior doctors feeling 'looked after' during a difficult time. However once the pandemic situation had improved, spaces were often reclaimed for their former use and junior doctors had to 'fight' to keep spaces they had invested resources in.[48]

The location of a shared social space impacted accessibility unevenly when, for example, the doctors' mess was situated closer to certain clinical working areas than others. Some doctors were not able to leave areas like the emergency department or intensive care unit where their immediate presence may be required in case of an emergency (3.g). This raised the issue of parity since there were sometimes complaints that some specialties tended to use certain spaces (e.g. doctors' mess) more often than others.[36] In the UK, use of the doctors' mess usually involves a monthly subscription fee. If some users appeared to be getting more use, or weren't paying at all, it was deemed 'not fair on the others who are subsidising' the cost.[36]

Shared social spaces had a simple but important function as a space for rest and refreshment (Subtheme 3.3), where basic items such as a fridge, healthy snacks, coffee making facilities and lockers were often available to refresh the workforce, in and out of hours. Workplace conditions such as these were reported to make a big difference to the experience of control and sense of value (3.e). It was recognised that beyond physical nourishment, workplace conditions such as these also made a significant contribution to the experience of control and sense of value (3.e).

Theme 4. **Legitimate spaces**

Informal conversations can happen in shared social spaces when there is a legitimate reason to stay and talk.[27] There are visible physical spaces that commonly allow this, such as the nurses' station or staff lounge (Quote 4.a, Table 9). Informal meetings and conversations

were further supported or encouraged when endorsed by organisational management, senior colleagues and the overall workplace culture (4.f, 4j). When a space was used frequently by a team and formed part of a functioning work environment, it appeared more legitimate for junior doctors to use it.

With a legitimate reason to be present in a shared social space, junior doctors could observe senior colleagues from the periphery and have exposure to discussions of difficult cases between more experienced doctors without necessarily being directly involved in the clinical care (4.d). There were opportunities to observe colleagues being comfortable with the limits of their own knowledge and asking for help (4.b). Further, senior colleagues could role model (Subtheme 4.1) positive self-care attitudes, such as break taking (4.e). There were examples in the included articles of colleagues openly admitting fallibility, showing vulnerability and reassuring each other (4.c). It was thought that junior doctors could learn from the 'hidden curriculum' in shared social spaces, which was reported as useful in one example[7] but has potential disadvantages. There is a risk that informal conversations 'may reinforce existing professional silos' for example.[27]

The support of senior colleagues or organisational management appeared to increase the long-term success and sustainability (Subtheme 4.2) of shared social spaces. Involving relevant stakeholders in the management of such spaces was important for their allocation and maintenance. Doctors reported feeling valued when such facilities were provided in their workplaces (4.g, 4.h). The presence of well-maintained and frequently used shared social spaces was believed to change doctors' attitudes to break taking (4.i, 4.j) contributing to wellness culture (Subtheme 4.3) In some settings, doctors agreed to set plans to spend informal time together.[28] There was an example of junior anaesthetists creating regular informal time to have lunch together with agreement from their consultants that this should be encouraged.[29] Compared with time limited efforts by junior doctors who move between hospitals during their training, committed involvement from permanent staff made facilities more likely to be sustainable (4.f).

Discussion

This scoping review identified several ways in which shared social spaces may impact positively on the learning and wellness of junior doctors. Primary research in this area remains limited, but the profile of shared social spaces appears to be on the rise in medical discourse despite the demise in their existence.[6] There is great national and international variation in the characteristics of different shared social spaces, however we identified four significant common attributes which can be credited with positive impacts; informal, safe, functional and legitimate (Table 1, Figure 2).

Informality and safety appeared crucial to facilitating interactions that lead to increased connectedness, belonging and trust.[24,28,40,51] As well as improving wellness, this fostered effective teamworking and honest reflection, debrief and feedback.[13,30,46] This has implications for the learning environment but also for the quality and safety of patient care. In addition to providing essential refreshment and rest to staff, shared social spaces were often integral to the daily functioning of teams or departments. In such spaces, clinical activities were planned, complex problems were solved, and concerns were raised.[13,27,40] Importantly, the most effective spaces were those that had a high degree of user ownership and engagement.[7,8] When users had ownership over the space, not only did they value the sense of control from a wellness perspective, but they were able to modify the space to perform well in their context.[30] Opportunities to manage spaces such as the doctors mess,

allowed junior doctors to develop nonclinical skills such as management and leadership.[36] Successful spaces tended to have the support of senior colleagues or management, which provided legitimacy and sustainability.[7,27,41]

Significantly, three of the included papers drew on Goffman's theory of social theatre when conceptualising activity in shared social spaces .[13,27,30] Shared social spaces were viewed as the 'backstage' areas of the clinical workplace. They are adjacent to but away from the audience (patients, relatives, supervisors) and allow actors (clinicians) to break character for brief periods of relaxation before returning to the 'front stage' to deliver clinical care. This creates an informal, safe space which is integral to the functioning of the front stage, aligning with the major themes in this review. The findings and interpretations of functionality in this review are also in line with Cain's[58] conclusion that activities in the backstage allow hospice workers to maintain appropriate behaviours during front stage work. Needham[57] highlights that '*society today encourages the open disclosure of emotional distress, but the work of the emergency services and clinicians can continue effectively only if this distress is contained.'* In the psychological safety of the backstage, freed from the audience's judgement, clinicians have an outlet to disclose distress and unburden themselves in order to continue work effectively.

A physical space, such as any example of a shared social space included in this review, is a clear delineator between front and backstage. Lewin and Reeves[17] suggest that different professional groups use front and backstage spaces in different ways and different groups may take ownership of specific spaces. In some instances, for example the nurse's station, ownership is blurred and changeable. This raises the issue of elitism and the question about whether doctor-only spaces are justified.[7] The informality and safety of the backstage depends on being away from, thus freed from, an audience's expectations. However, the audience may represent patients or a subset of colleagues which is likely to be different for each individual. For example, de Vries-Erich et al found that even in the 'unofficial backstage' medical students were more willing to share emotional experiences with other students than with mentors who might expect them to uphold formal behaviour.[59] Therefore, the degree of informality and safety a space affords an individual will depend on who it is shared with and who is viewed as the audience. Even within the group of other students, participants were more likely to share with students who were in the same department and had similar experiences. [59] This aligns with Cantillon's idea that there are communities within a community of practice. He describes 'fraternities' of junior doctors that exist within and between clinical teams. In these less hierarchical communities of junior doctors, fellow trainees were seen as more available and less threatening than lead consultants in a clinical team, which influenced their learning and development as clinical teachers.[60] Clinical teams and fraternities of junior doctors are examples of communities of practice that operate on Wenger's horizontal plane of accountability.[61] Accountability in this plane can be thought of as 'professional accountability' to a community's regime of competence, where fellow professionals negotiate the meaning of competence, the application of accepted standards, peer recognition of membership and identity formation. In contrast, the vertical plane of accountability is about compliance with the structural norms, values, and practices of institutions, which is also thought of as 'managerial' accountability. In shared social spaces it appears that the horizontal plane of accountability becomes narrowed to a community within a community. This may be by clinical department, such as in the paediatric rehabilitation team tea-room[30] or by profession such

as in the doctors' mess. The result is meaningful sharing of experiences and access to support.

Observing colleagues' backstage behaviour may allow role modelling of self-care behaviour and destigmatizing of vulnerability. This makes it an important part of a strategic approach to promote wellness. We also see how the backstage facilitates informal learning, where informality and safety allow the addition of emotional support and discussion of controversial topics. It is recognised that informal learning is significant in medical education, but its ineffable nature makes it difficult to study. Shared social spaces may serve as a tangible setting to investigate informal learning. It has been suggested that to preserve the serendipity and self-directedness of informal learning, we might focus on preserving and creating liminal backstage spaces.[17] This suggestion is supported by reports and observations of learning in shared social spaces analysed in this review.

A recent Health Education England (HEE) report[24] recommends that 'when capital allocation to NHS bodies is being considered, there should be evidence that estate development plans will also enhance or create space for staff and those who are learning in the NHS.' This review begins to characterise what such a 'space' should look like. It demonstrates the wider-ranging value of shared social spaces and highlights the importance of engaging relevant stakeholders in maintaining them.

Strengths and limitations

This review explores a topic that although often discussed has not been extensively studied and we did not find any literature reviews meeting the inclusion criteria. Despite a systematic search of databases and supplementary hand searches, it is likely that some relevant studies may have been missed. In part this will be due to the varied language used to refer to shared social spaces, compounded by language bias from excluding non-English articles. Although a comprehensive working definition was proposed in this paper, this may not be exhaustive and it would be beneficial to agree on a term going forward. In line with accepted scoping review methodology, the quality of included articles was not formally appraised. However, it should be noted there is a sparsity of primary research in this area and most of the included articles are not empirical. The majority were letters and perspectives, often written by junior doctors from a particular perspective. Our decision to include these has resulted in a useful descriptive summary of how a novel topic is currently represented in the literature, but we recognise the potential limitations of this approach.

This scoping review provides a synthesis of descriptions, experiences and interpretations of the impact of shared social spaces on learning and wellness of junior doctors. The implications of the findings are that there is much at risk of being lost with the decline of these potentially valuable backstage spaces and that stakeholder involvement is key to creating and protecting effective shared social spaces. However, there is paucity of empirical evidence and future research using realist evaluation would be useful to further examine how and why shared social spaces might work. A shared social space is a complex intervention, however implementing the allocation and maintenance of a physical space in practice is comparatively simple.

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Tables and figures

Table 1: The components of the definition of a shared social space for doctors for this study.

Component	*Description*
A physical space	Such as a coffee room, staff room or doctors' mess. It can be a permanent or temporary structure.
On-site	Located on the clinical site (hospital, GP practice) but in a separate non-clinical area. Accessible during a working day.
Staff-only	Staff in the space may be able to discuss clinical cases without breaching confidentiality.
A shared space	A communal area, where groups gather informally. Groups may be doctors only or shared with the multi disciplinary team. i.e. not single occupancy rest facilities.
Informal	A space that is primarily designated as a break area, but may be a shared workspace where social interactions occur informally.

Table 2: Search strategy.

Population	Context	Concept
1. junior doctor*.af. 2. "trainee doctor".af. 3. (doctor* adj1 train*).af. 4. trainee.ab. 5. (learner or learners).af. 6. (intern or interns).af. 7. resident.ab. 8. physician.af. 9. or/1-8	10. doctor* mess.af. 11. doctor* lounge.af. 12. resident* lounge.af. 13. coffee room.af. 14. tea room.af. 15. break room.af. 16. break space.af. 17. staff room.af. 18. social space.af. 19. shared space.af. 20. on call room.af. 21. break area.af. 22. informal meeting.af. 23. meeting place.af. 24. common room.af. 25. or/10-24	26. wellness.af. 27. wellbeing.af. 28. learn*.af. 29. exp Mental Health/ 30. exp Medical Education/ 31. exp Professional Development/ 32. or/26-31 33. 9 and 25 and 32 34. 10 or 11 or 33

Table 3: Eligibility criteria.

Inclusion		
	Any type of primary or secondary research study.	Qualitative, quantitative or mixed-methods.
	Grey literature sources.	Conference abstracts, reports, non-peer reviewed editorials, commentaries, responses and online news.
Population	Types of participants: Practicing medical practitioners who have not yet completed postgraduate training.	Junior doctors of all grades and specialties, including those not enrolled in a formal training programme. Experiences of other participating groups (e.g consultants, medical students, nurses) can be included if related to junior doctors' interactions. Shared spaces where only professionals from the

		multidisciplinary team gather, without junior doctors, were excluded.
Context	Types of interventions: Shared social spaces.	Any shared physical space accessible from the clinical workplace, where doctors may gather informally (defined in Table 1). For example the doctors' mess, coffee rooms, staff rooms or any shared rest facilities.
Concept	Types of outcomes: Any outcomes related to wellbeing or learning.	These may be reported as doctors' experiences of impact on their wellness and professional development. Outcomes may be presented as views, quotes, themes or author interpretations and explanations. Positive as well as any potential negative experiences or outcomes were included.
Exclusion		
• Shared spaces where only medical students or professionals from the multidisciplinary team gather, without junior doctors. • Non-social rest spaces, such as single occupancy call rooms. • Formal educational meetings in social spaces, such as journal clubs. • Online spaces. • Publications prior to the year 2000. • Non-English language publications.		

Figure 1: PRISMA Flow diagram

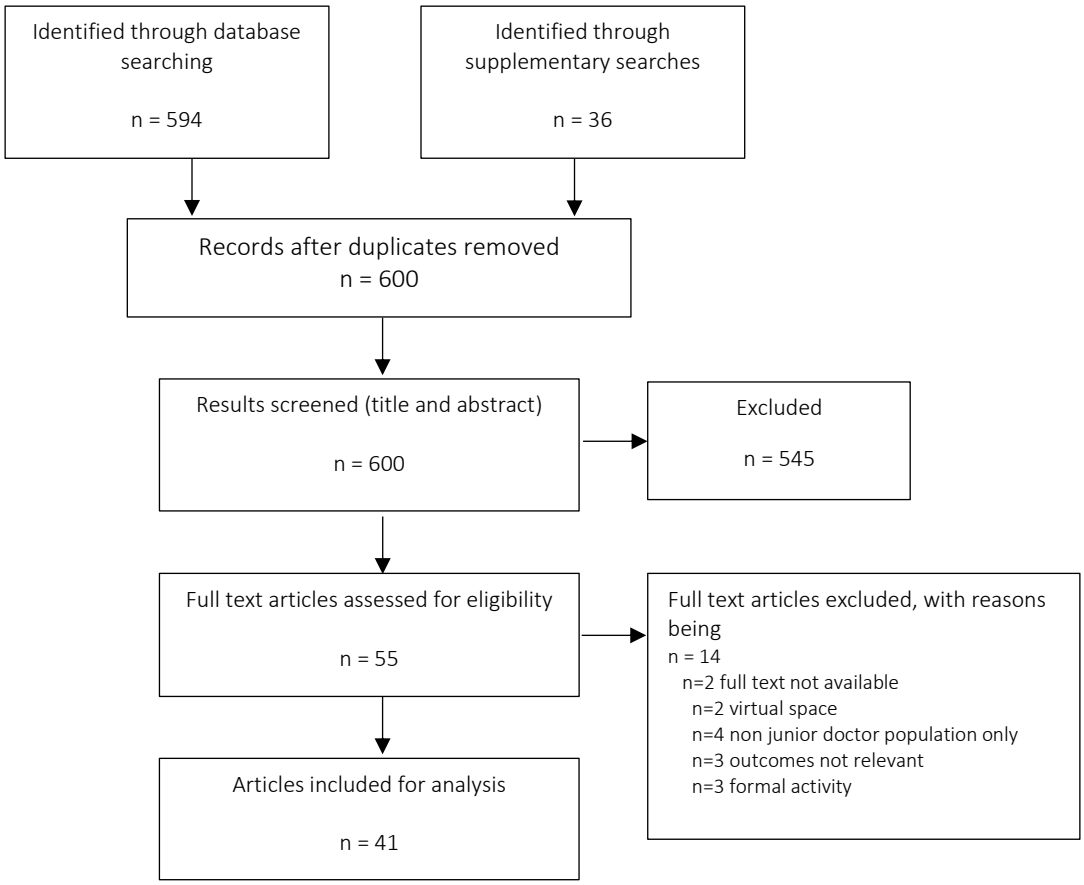


Table 4: Overview of the reviewed sources.

Authors	Origin	Purpose	Type of source	Description of spaces	Major themes
Raw (2003)[10]	UK	To describe a personal experience of the doctors' mess as a valuable resource	Opinion	Doctors' mess	Connectedness and belonging, Trust and Teamwork, Access to help
Lowes (2006)[22]	USA	To explore reasons why the use of the doctor's lounge is in decline	Opinion	Doctor's lounge, Surgeon's lounge	Connectedness and belonging, Trust and teamwork
Hooke (2008)[36]	UK	To provide peer to peer advice about how to use the doctors' mess	Opinion	Doctors' mess	Refreshment, Sense of control and engagement from users
Waring & Bishop (2009)[13]	UK	To identify instances of informal knowledge sharing at the "backstage" of the clinical environment using ethnography	Empirical research	Staff lounge	Trust and teamwork, Reflection, Raising concerns, Planning of clinical care activity
Hunter & Scheinberg (2012)[30]	Australia	To describe and analyse an ethnographic study of tea-room talk	Empirical research	Tea-room	Access to help and support, Reflection, Debrief, Planning of clinical care activity, Sense of control and engagement from users
Gunderman (2013)[26]	USA	To discuss what is lost when there is not a place in which colleagues can interact regularly	Opinion	Doctors' lounge	Connectedness and belonging, Trust and teamwork

Brennan & McGrady (2015)[31]	USA	To report the results of a program to improve resilience which includes a shared social space	Empirical research	Conference room, on call room	Refreshment, Role modelling, Wellness culture
Gopal & Lee (2016)[37]	USA / UK	To draw comparisons between the UK doctors' mess and well-being programmes in the USA	Letter	Doctors' mess	Connectedness and belonging, Sense of control and engagement from users, Refreshment
Shanafelt & Noseworthy (2016)[34]	USA	To describe a wellbeing programme which includes the use of a physicians lounge	Report	Physician lounge	Connectedness and belonging, Access to help and support
Finnegan (2017)[50]	UK	To report an example of a successfully improved shared social space	Website article	Doctors' lounge	Connectedness and belonging, Sense of control and engagement from users, Refreshment
Naidoo (2017)[23]	UK	To discuss what trainees can learn from 'coffee room chats' and how this can be captured in a portfolio	Website article	Coffee room	Access to help and support, Reflection, Debrief
Zimmerschied (2017)[51]	USA	To report an example of a successfully improved shared social space	Website article	Doctors' lounge	Connectedness and belonging, Sense of control and engagement from users, Refreshment, Wellness culture
Suraweera et al. (2017)[32]	Netherlands	To describe the implementation and evaluation of a massage service in the residents' lounge to improve burnout	Empirical research	Resident lounge	Access to help and support
BMA (2018)[35]	UK	To make recommendations for a shared social spaces as part of Fatigue and Facilities charter	Report	Common room or 'mess'	Refreshment
Gerada (2018)[38]	UK	To discuss the loss of spaces for junior doctors to be together without threat of inspection, regulation or monitoring	Opinion	Doctors' mess, shared dining rooms	Connectedness and belonging, Access to help and support
West & Coia (2018)[25]	UK	To report the findings of a review with recommendations of standards for rest facilities	Report	Doctors mess, accessible space to meet, doctors rest rooms, appropriate facilities	Connectedness and belonging, Debrief, Refreshment, Wellness culture
Rimmer (2019)[7]	UK	To discuss private spaces as a vital resource to doctors and their patients	Editorial	Rest spaces, doctors' mess, staff room	Trust and teamwork, Debrief, Sense of control and engagement from users, Wellness culture
Mowatt et al. (2019)[39]	UK	To share a collaborative experience of improving junior doctors' facilities	Commentary	Doctors' mess	Sustainability
Kamal (2019)[40]	UK	To describe a personal experience of learning in the doctors' mess	Commentary	Doctors' mess	Trust and teamwork, Planning of clinical care activity, Reflection, Role modelling
Peake (2019)[41]	UK	To describe how sharing a coffee break facilitates integrating into a team	Commentary	Doctors' mess, suggests renaming as 'professional space'	Connectedness and belonging, Sustainability
Health Education England (2019)[24]	UK	To make recommendations for spaces based on NHS Staff and Learners' Mental Wellbeing Commission	Report	Psychologically safe and confidential staff -only space, quiet space, social space, personal space	Connectedness and belonging, Reflection, Debrief, Refreshment
Atkins (2019)[54]	UK	To describe personal experience of the benefit of regularly spending informal time together	Letter	Communal space in General Practice	Connectedness and belonging, Access to help and support, Planning clinical care activity

Rimmer & Chatfield (2019)[6]	UK	To raise awareness of the launch of BMJ's wellbeing campaign	Editorial	Rest areas, meeting rooms, seating areas, common room, doctors lounge, informal spaces	Wellness culture
Brown (2019)[52]	Canada	To discuss the possible impacts of losing shared social spaces	Commentary	Doctors' lounge	Connectedness and belonging, Trust and teamwork
Rimmer (2019)[53]	UK	To report news of recommendations for psychologically safe staff spaces in HEE commission report	Commentary	Rest facilities	Connectedness and belonging, Refreshment
Needham (2019)[57]	UK	To reflect on the connection between the closure of hospital messes and the lack of mutual peer support	Letter	Hospital mess	Access to help and support
Rimmer (2019)[56]	UK	To report news of UK government funding for rest facilities	Commentary	Rest facilities	Access to help and support, Sense of control and engagement from users, Sustainability
Rimmer (2019)[8]	UK	To discuss allocation of funding for rest spaces	Commentary	Doctors' mess	Sense of control and engagement from users, Sustainability, Wellness culture
Mowatt & Rowlands (2019)[42]	UK	To describe a collaborative effort to improve junior doctors' facilities, involving local government and volunteers	Letter	Doctors' mess	Sustainability
Robinson (2019)[29]	UK	To describe the benefits of a regular lunch club for junior doctors	Interview	Lunch club	Connectedness and belonging, Sustainability, Role modelling
Bamji (2019)[43]	UK	To lament the loss of the doctors' mess	Letter	Doctors' mess,	Access to help and support
McCaul (2019)[44]	UK	To describe a personal experience of the value of shared social spaces and discuss variability of spaces within UK	Commentary	Doctors' mess	Connectedness and belonging, Trust and teamwork, Refreshment
Earnshaw (2019)[45]	UK	To discuss accessibility of shared social spaces.	Commentary	Doctors' mess, rest facilities	Access to help and support
Lyon (2019)[55]	UK	To describe personal experience making personal connections during team coffee breaks.	Commentary	Coffee break	Connectedness and belonging
Webber (2019)[46]	UK	To discuss the importance of addressing workplace conditions and how volunteers improved a shared social space	Commentary	Doctors' mess	Connectedness and belonging, Reflection, Refreshment, Sustainability
Salisbury (2019)[28]	UK	To describe personal experience of the value of shared time and space in the general practice setting	Opinion	Coffee break	Connectedness and belonging, Trust and teamwork, Access to help and support, Role modelling
Morgan (2019)[47]	UK	To reflect on the value of informal interactions and lament the loss of spaces where it can occur.	Opinion	"Third space" - staff canteen, doctors' mess, separate coffee area	Trust and teamwork, Planning clinical care activity
Thomson (2020)[27]	Australia	To discuss informal conversations and where they occur	Commentary	'communal and in-between spaces'	Access to help and support, Reflection, Raising concerns, Planning of clinical care activity
Bell (2020)[48]	UK	Description of lack of facilities and temporary improvements during the pandemic.	Website article	Various (Doctors' mess, hospital canteen, 'R&R areas', break room)	Refreshment, Sense of control and engagement from users, Sustainability

Counts (2020)[33]	USA	To evaluate a well-being programme which includes interventions to shared social spaces as part of PhD thesis	Empirical research	Resident lounge	Refreshment
Forsythe & Suttie (2020)[49]	UK	To discuss how the loss of spaces such as the doctors mess affects junior doctors' working lives	Commentary	Common rooms, doctors mess, on call room, rest facilities	Access to help and support, Refreshment

Table 5. Summary of themes and subthemes.

Themes (attributes of shared social spaces)	**Subthemes (impact of each attribute on wellness and learning)**
1. Informal	1.1 Connectedness and belonging 1.2 Trust and teamwork 1.3 Access to help and support
2. Safe	2.1 Reflection 2.2 Debrief 2.3 Raising concerns
3. Functional	3.1 Planning of clinical care activity 3.2 Sense of control and engagement from users 3.3 Refreshment
4. Legitimate	4.1 Role modelling 4.2 Sustainability 4.3 Wellness culture

Table 6. Exemplar quotes from included articles supporting Theme 1 "Informal" attribute of shared social spaces.

Label	Quotes from included articles	Subtheme
1.a	*When doctors, nurses and staff gather in the same place for a cup of coffee, it increases the chances they will get to know one another on a personal level. When they share stories about their children or a planned vacation, it creates a personal bond that helps build their bond as a team.*[51]	Connectedness and belonging
1.b	*In ensuring that staff and learners have a social space to come together, to reflect and sometimes to decompress, we can support valuable peer relationships and address issues such as isolation.*[24]	Connectedness and belonging
1.c	*Beyond the clinical, a coffee break is an opportunity to catch up with each other's lives, holidays, families, and interests outside work. Friendships forged over coffee and conversation are useful when disagreements arise, as they inevitably will at any organisation. It's much easier to debate when you know each other well. If you trust each other you can afford to disagree in meetings, spend time arguing, and allow the best decisions to emerge, unhampered by the fear that differences of opinion might spill into the rest of your working relationship.*[28]	Trust and teamwork
1.d	*Such informal gathering offers a great opportunity to iron-out minor difficulties of clinical decisions, with conflicts between colleagues being mutually resolved rather than escalating to formal complaints.*[40]	Trust and teamwork
1.e	*The exchange of knowledge relies upon trust between co-workers, in terms of willingness to both give and to absorb useful knowledge. While trust may be present between those involved in official public communication, it is more likely to be present as a matter of course when people choose to talk freely and "off the record".*[13]	Trust and teamwork
1.f	*Unlike other interactions with predetermined content, informal conversations allow learners to receive social and emotional support and engage in critical reflection and collective sense-making.*[27]	Access to help and support
1.g	*[The doctors' mess] provides a space where we can support each other and share our breadth of experience as we discuss clinical conundrums.*[54]	Access to help and support
1.h	*Learning as a GP trainee does not only happen while you are seeing patients or in formal teaching situations. You can learn a lot from informal conversations with colleagues during breaks or over coffee*.[23]	Access to help and support
1.i	*[The lunch club] provides an opportunity for doctors to share experiences, build confidence, and enjoy themselves at work... Just having that protected time means that you have got something to look forward to in your working day.*[29]	Connectedness and belonging
1.j	*A coffee break serves many purposes beyond simple bodily sustenance (although that too is important). It's a chance to pick colleagues' brains about a result you don't understand, to ask what to do next in a tricky case, or to update the team on a shared patient's progress. For trainees and students it's a good example of how colleagues can work together, being comfortable with admitting the limits of individual knowledge and asking for help. It also provides an informal space where they can ask questions, either clinical or practical.*[28]	Access to help and support

Table 7. Exemplar quotes from included articles supporting Theme 2 “Safe” attribute of shared social spaces.

Label	Quotes from included articles	Subtheme
2.a	*The staff involved were enabled to debrief and find sanctuary and solace in the tea-room talk by telling the story.*[30]	Debrief
2.b	*Doctors can freely reflect on difficult or emotional cases, training issues and personal problems without fear of being overheard or penalised.*[46]	Reflection
2.c	*Clearly, in situations where clinicians feel more confident of their surroundings and trusting of the individuals to whom they are talking, they are more comfortable in discussing more sensitive issues, of being critical of others and attributing blame to individuals or systems for threatening clinical safety.*[13]	Raising concerns
2.d	*Although many formal opportunities might exist for reflection, such as appraisal, audit or training; the backstage offers a more interactive, secure, and importantly, situated setting for frontline clinicians to reflect upon their practice with colleagues undertaking similar tasks.*[13]	Reflection
2.e	*Through being able to share and talk through such experiences in a private and confidential setting, the emotional and traumatic aspects of clinical work can be shared in a collective way. In turn this helps clinicians feel that they are not isolated, to develop shared or common coping strategies, to seek the support of colleagues and to look for further guidance from service leaders.*[13]	Debrief
2.f	*The staff lounge provided a forum to vent widely recognised concerns in a more public setting as a means of eliciting the views and support of others and building a wider consensus.*[13]	Raising concerns
2.g	*The reflection on work practices is through retelling and revisiting the clinical consultation that occurred earlier in the day. These kinds of reflections occur often when interdisciplinary team clinicians eat their lunch or have a quick cup of coffee. It is the backstage dialogue that complements and expands knowledge sharing about the front stage formal clinical consultation.*[30]	Reflection
2.h	*The space allows individual team members the freedom to talk the affective talk. The talk is valued, even if unconsciously because it enables the individual a space to free oneself up from the affect - to disembody it, to take a rest before moving back into the front stage again.*[30]	Debrief
2.i	*In instances, where risks are collectively agreed as significant within the backstage, clinicians are more likely to make formal representation and communication to service leaders. The informal exchange of knowledge provides an overlooked first-step to more formal knowledge sharing.*[13]	Raising concerns

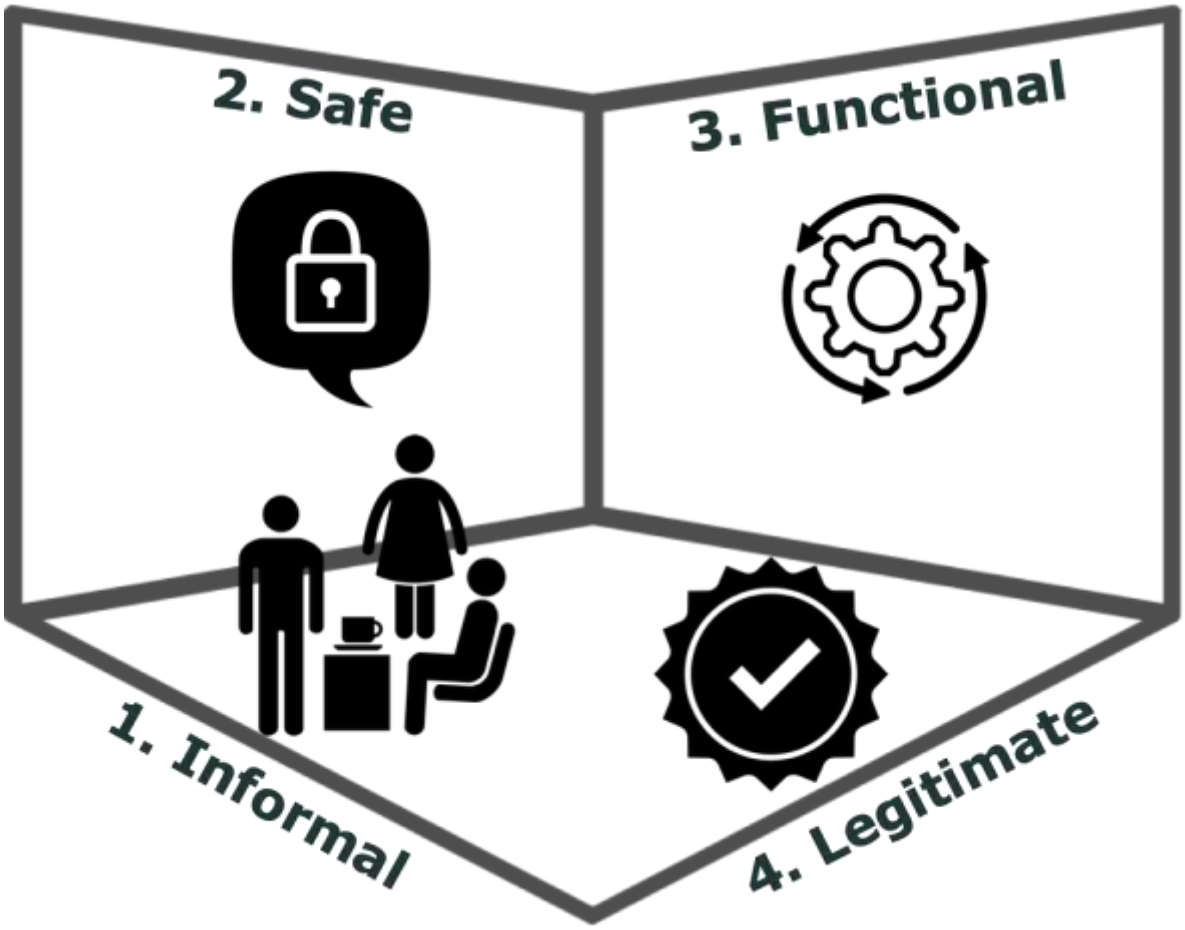
Table 8. Exemplar quotes from included articles supporting Theme 3 "Functional" attribute of shared social spaces.

Label	Quotes from included articles	Subtheme
3.a	*Having a break time after the busy morning is a very refreshing time to spend informal moments with colleagues, where doubts, queries arising and pouring of updated knowledge promptly for the decisions made earlier may offer an opportunity to refine decisions.*[40]	Planning of clinical care activity, Refreshment
3.b	*At the 'frontstage,' the presence of an audience (ie, patients and carers) means that medical and health professionals must individually and collectively engage in a flawless performance of the provision of quality care. At the 'backstage,' without an audience, professionals can hide 'props' like equipment, share concerns, review errors, and prepare for their next act by discussing patient needs and treatment plans.*[27]	Planning of clinical care activity
3.c	*Interaction at the backstage is inevitably at the margins of the clinical environment, and this short distance to the clinical front stage means that clinicians can test out ideas and plan adjustments to their performance in a supportive and less pressurised setting, without recourse to formal communication or committee. It also means that when solutions have been identified they can quickly be implemented into practice given the proximity to the "front stage".*[13]	Planning of clinical care activity
3.d	*Clinicians feel that because they created this space for themselves by usurping another clearly designated space on the original hospital plans symbolizes success in the making. As mentioned earlier, there is a designated meeting room with tea and coffee-making facilities on the other side of the patient waiting room area. However, it is removed from all the clinicians' offices and, as one long term clinician stated, "Who wants to walk through a crowded waiting room to have a cup of tea and a break when patients are waiting for your services?"*[30]	Sense of control and engagement from users
3.e	*The success of the new lounge isn't so much in the amenities themselves as the physicians' recognition of the effort being made on their behalf and the feeling of ownership over a space meant just for them.*[51]	Refreshment
3.f	*Often the things that cause us stress at work are things that are out of our control. Whereas this is our space; this is our mess; we have ownership over it.*[7]	Sense of control and engagement from users
3.g	*Tackle accessibility: I have never set foot in the mess at my hospital as it is too far away for me to use. Set up satellite rest spaces for staff from high acuity areas such as the emergency department and the intensive care unit*.[8]	Sense of control and engagement from users
3.h	*I realised recently what an unsung resource the doctors' mess is–more accessible and easier to understand than a textbook, and definitely cheaper (£5 to £10 a month seems the going rate), and perhaps more approachable and available than a consultant. It is an ever changing resource that updates itself continuously.*[10]	

Table 9. Exemplar quotes from included articles supporting Theme 4 “Legitimate” attribute of shared social spaces.

Label	Quotes from included articles	Subtheme
4.a	*Essentially, informal conversations are afforded by spaces that bring people together, have appropriate levels of privacy, and provide legitimate reasons to stay and talk, such as a nurses’ station, staff lounge or storeroom.*[27]	Sustainability
4.b	*A coffee break serves many purposes beyond simple bodily sustenance (although that too is important). It’s a chance to pick colleagues’ brains about a result you don’t understand, to ask what to do next in a tricky case, or to update the team on a shared patient’s progress. For trainees and students it’s a good example of how colleagues can work together, being comfortable with admitting the limits of individual knowledge and asking for help.*[28]	Role modelling
4.c	*The [lunch] club gave those new to anaesthetics the chance to get feedback from more experienced trainees who were often able to reassure them that how they were feeling was appropriate for that stage of their career.*[29]	Role modelling
4.d	*I know that when we were preregistration house officers my colleagues and I spent as much time as we could in the mess trying to be friendly with the senior house officers and registrars and asking them questions and being asked questions.*[10]	Role modelling
4.e	*Setting limits and boundaries, finding time to sleep, eat well, play, and exercise is a struggle for many resident physicians but can be role modelled by practicing physicians. System-based interventions begin with a supportive, congenial, and positive team culture that openly values resiliency practices.*[31]	Role modelling
4.f	*It was definitely playing a long game. Junior doctors are not here long enough to start the process off and then carry it through. It probably was up to one of us consultants to do that and be patient and allow the time for chasing up estates.*[7]	Sustainability
4.g	*What people tell me they are excited about is that they feel like they’re being taken care of. We aren’t used to having a nice space that’s just for doctors and not anyone else.*[51]	Wellness culture
4.h	*It just feels nice to know that the faculty really cares about our well-being. We really appreciate the fruit and veggies and exercise machine.*[31]	Wellness culture
4.i	*The improved space has also helped to encourage doctors in the hospital to be more open to taking breaks. “I am sure the space has changed people’s mindset at work.”*[7]	Wellness culture
4.j	*Having professional spaces that are well maintained, accessible and comfortable should engender a better sense of community within hospitals.*[41]	Sustainability

Figure 2. Visual model representing the four themes as the four walls of a shared social space.



Icons from NounProject.com
Room by Logodemia, Rest by gzz, Speech Bubble by Francisco Garcia Gallego, Working by Charlotte Vogel, Approved by Muhammad Ridho, Woman by Gan Khoon Lay.