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CONNECTIONS

Connecting the complex chemistry of space in medical education

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1 | INTRODUCTION

Space has been simply defined as 'a featureless, neutral surface upon which life unfolds'.[1] It is the unfolding of life that adds complex connotations to space, resulting in it being no longer neutral but charged. Henri Lefebvre in 'Production of Space' introduces the concept of 'third Space' or lived space, which projects space as a social product comprising a lived (phenomenological) component.[2] In order to make sense of this complex social product, one needs in-depth exploration of how life unfolds in a particular space. This piece is prompted by the recent commentary by Ajjawi and Gravett,[3] which highlights the importance of space in the entangled web of learning, well-being and belonging within medical education. Drawing on several theoretical ideas, they conceptualise space to be sociomaterial, relational and political. These attributes render an abstract complexity to space, with the potential for multiple unimaginable processes affecting inhabitants of learning spaces, whether physical or virtual. This connection piece hopes to shed light on these latent processes operating in lived medical education spaces through juxtaposing four recent papers. The selected papers illuminate different spatial elements in different contexts, and yet converge on the key principle of understanding how life unfolds in various learning spaces. Drawing connections between these has challenged us to consider interactions between space, people and learning in new and meaningful ways.

2 | ARTICLE SUMMARIES

2.1 | Spaces, wellbeing and learning

Our first selection is a scoping review conducted by Uys and colleagues[4] addressing the question 'What is the evidence of the impact of shared social spaces on wellness and learning of junior doctors?'. Of the 41 papers included, only five were research studies, highlighting the paucity of empirical research in the area. The review deduces positive spatial attributes, these being: informal, safe, functional and legitimate. This paper merits inclusion as it surfaces the critical role space, or the lack of, can play in supporting doctors' well-being at a time when workforce morale is at a low and space at a premium.[5] Using Goffman's theory of social theatre,[6] the authors elaborate on the sociomateriality of the 'backstage' shared spaces in the clinical setting, inhabited by healthcare staff and students; these spaces have been the subject of much debate, owing to the mental health concerns amongst junior doctors and because of their value in informal learning.[7,8]

2.2 | Space and temporality

Our second selection is a scoping review by Brown et al.,[9] which highlights the role of *contextual continuities* in Longitudinal Integrated

Clerkships (LICs). Contextual continuities are defined by Balmer et al.[10] as time and space, where 'space' concerns the creation of 'safe physical and emotional territories'. The provision of such spaces within the LIC model allows relationships to flourish and become the catalyst for learning and identity formation. LICs have been conceptualised as a series of interconnected learning spaces, which the clinical supervisors help students to navigate, through inviting participation.[11] Students assume a more central role within the community, as they become co-providers of patient care in the LIC model.[12] The review promotes relationships as a formative force in medical education, and the development of authentic relationships is contingent on the presence of suitable spaces to facilitate this.

2.3 | Marginalisation in spaces

Our third selection is a research article describing a participatory action project using comics-based workshops as means for medical students to discuss marginalisation across intersections of gender, race and class.[13] The authors apply Bourdieu's theoretical framework, which focusses on different forms of 'capital' that are valued in the medical education 'field' and shape the individuals' 'habitus'.[14] This structural theory helped the researchers to make sense of the recognised patterns of classism in medicine. The participants and the researcher partnered to create a space for students who felt 'peripheral' to the traditional medical culture. This project was a grassroots act to counter the damaging effect of simplistic implementation of widening participation schemes, and a lack in corresponding cultural change in the medical community.[15] The intervention involved students 'on the margins' creating a space for resisting devaluation, to express and explore their experiences such that they became mutually enriching. This paper speaks into our conversation on space through illuminating the 'exclusive' spaces in medical education and the emotional labour required to exist within such spaces.

2.4 | Boundaries

Our fourth paper is selected with the intention of zooming out to gain a holistic view of the broad landscape of medical training. This Cross-cutting Edge paper by Hodson[16] discusses 'landscapes of practice', a sociocultural theory of learning proposed by Wenger-Trayner et al.[17] The landscapes of practice theory augments the communities of practice model, through highlighting the border spaces as fertile settings for learning, and hybridisation between communities. The resultant transformative learning involved in boundary crossings or boundary encounters projects medical training as 'a grand tour' as opposed to 'a linear conquest of a listed criteria'.

3 | CONNECTIONS

Connecting the above papers and taking a view of the proceedings in the diverse environments described in each of these, reminds us once again of Lefebvre's complex social construction of (third) space affecting practices and perceptions.[2] It also reinforces the conceptualisation of space as sociomaterial and relational by Ajjawi and Gravett.[3] Although spaces themselves do not appear to be causing a direct shift in pedagogy, the affective reactions owing to relationships and inclusivity therein certainly seem to. We then wonder if the 'nurturing spaces' described in LICs,[9] Hodson's 'boundary spaces',[16] Foreshew's 'exclusive' and 'grassroot safe spaces'[13] or the shared social spaces in Uys's scoping review,[4] are all 'third spaces'? The lived reality sketched by the authors in each of the above selections, displays continuous hybridisation, which in turn generates new values and perspectives.

Pedagogical spaces (both physical and virtual) affect and are affected by the people who inhabit them, and it becomes imperative to pay close attention to the lived experience of people who interact with and within the space. The need for educators to be proactive in recognising when their efforts do not work for certain groups or individuals cannot be overemphasised. Well-meaning spaces can potentially create inequities or exclusions, and may or may not translate into actual learning spaces. The third space theory provides a lens to understand social action, which is a product of hybridisation at multiple levels, for example, continuity with place and people supporting a relationship-driven learning environment in the LIC model[9] or cross-discipline learning and vulnerability operating in inhabited boundary spaces.[18] Furthermore, with digital learning becoming ubiquitous, the learning landscapes of practice are shaped by online platforms and spaces, with students and practitioners being exposed to cross-pollination and multiplicity across boundaries.[19]

Mixing and blurring of disciplinary traditions in boundary encounters lead to spaces that are constantly forming and re-forming as opposed to being rigid or fixed[16]; the fluid property of space results in these being uniquely experienced by learners, while inviting attention to the politics that play out in them.[20] In addition to the classic tension of service versus learning in the healthcare environment, there are inevitable interprofessional relational issues resulting in transformation of pedagogic moments. A focus on these dynamics and mutability of space is needed, to understand dominance and interrupt it. Seeing the papers in tandem prompted us to ask—How can we understand the political dimensions of space in learning and belonging processes? We might find solutions in ethnographic approaches, which illuminate the 'everyday settings' including the lived realities of healthcare professionals and students.[21–23] Additionally, taken-for-granted sociomaterial perspectives (such as the meanings people give to objects and space) in the 'rich descriptions' could address the challenge of creating spaces in health care areas that can be sustainably shared by both clinical and educational activities. The value of such spaces is not restricted to basic facilities alone but is instrumental in fostering connections and belonging.[4] The negotiated reality of space, and how it is maintained or contested is particularly relevant to the informal curriculum owing to interwoven relational and political attributes.[24] An example of the rules and boundaries of medical education spaces is projected through the application of Bourdieu's field analysis in our third selection, where

authors discuss the 'exclusive spaces' experienced by the 'less privileged' students who 'get in' but often struggle to 'get on'.[13] The participatory action research is their 'act of resistance' where students take lead in claiming and creating their own 'grassroot spaces' to be vulnerable, to come together in solidarity and to share experiences of their different cultural struggles.

We acknowledge that life could be unfolding in medical education spaces in multiple ways, many of which have not been discussed here. For example, learners' agentic conduct is a critical attribute that can potentially influence spatial dimensions and vice versa. We also reflect that all four selected papers are from the global North and the degree of resonance with the wider cultures is difficult to predict.

To summarise, we have attempted to further the discussion initiated by Ajjawi and Gravett,[3] through a congregation of these articles, unpacking the latent elements that impact the landscape of healthcare education. Existing literature acknowledges that 'space is not neutral',[22] and this connection piece adds that a space (physical or virtual) gets charged into an actual learning space owing to temporal, sociomaterial and affective reactions catalysed by relationships and inclusivity. Privileging each of these factors and considering practices and negotiations that take place within spaces should guide us to rethink our pedagogical approaches, to formulate robust inquiry and to design valued learning spaces.

AUTHOR CONTRIBUTIONS

Shalini Gupta: Conceptualisation; writing—review and editing; writing—original draft; investigation. **Stella Howden:** Supervision; writing—review and editing; conceptualisation. **Mandy Moffat:** Supervision; writing—reviewing and editing. **Lindsey Pope:** Supervision; writing—review and editing. **Cate Kennedy:** Supervision; writing—review and editing.

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The authors disclose no conflicts of interests.

DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

ETHICS STATEMENT

Not applicable.

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