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Article type : Commentary

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Commentary on:
Learning support interventions for first year medical students: A review of the literature [Med Ed 2017-0593.R1]

TITLE: Where is student support most needed?

Authors: Jenny Barrett and Geoff McColl

Supporting medical students' transitions into medical school, through preclinical and clinical education and on to vocational medical training remains a challenge. This issue features a review from Kebaeste and colleagues of four decades of literature dealing with interventions aimed at medical students in the first year of medical school.[1] The review identifies three intervention models: reactive-deficit (remediation after failure); proactive-deficit (pre-entry, specific group admission) and proactive-developmental (all students, longer timeframe). The reviewers found that interventions were rarely built on robust needs assessments and were mostly focused on students' knowledge and skills. The papers reviewed also showed a trend towards the increased use over time of developmental rather than deficit approaches to interventions, a trend consistent with respected contemporary education principles. In response, the authors propose their own 3-phase model in which support begins for students even prior to their entry into medical school and continues during and after the first year. Genuinely grounded in a developmental approach, their model considers all students, is sequenced over the long-term accounting for a number of transition points, and it supports a range of content areas. What it does not consider, however, is the nature and impact of interactions between students and their learning environments.

We can reasonably assume that the supports the authors propose for first year students would help their subsequent transition into and between clinical learning environments. In particular, systematic identification of academic at-risk students with subsequent remediation and monitoring are likely to have enduring benefits. Our own work, however, has confirmed for us that the wider picture needs to be surveyed and interrogated: schools need to attend more convincingly to the dynamic interaction between individual students and the learning environments they encounter. To structure that investigation, schools can access a contemporary evidence-based blueprint to study students' interactions with the clinical learning setting[2] – surely one of the most complex and challenging learning environments imaginable. The broad areas that comprise this learning environment are the education program/ instructional design itself and the wider, many-faceted contexts of the university campus and ultimately the environment of the hospital and health service. These environments need to provide workable opportunities for experience-based learning through participation, appropriate supervision and through both affective and pedagogic support.

Pullout: Schools need to attend more convincingly to the dynamic interaction between individual students and the learning environments they encounter

This work framed a recent Australian study of the individual and environmental factors affecting novice medical students' unsupervised encounters with hospital patients in an academic medical centre.[3] All of the individual participating students expressed frustration with the navigation challenges, the time and energy they expend trying to find 'good' patients to clerk, efforts often rewarded only with a cycle of 'hits and misses' fused with awkwardness and a fear of rejection. Some were overwhelmed by this relentless unrewarded effort, others coped, but many were burdened by the feeling that they have nothing to give patients in return for what they were asking and taking. Reflected here are obvious imperfections, the instructional design failing to provide for students' sense of 'being attached' and 'belonging' and having a legitimate purpose. As well, a lack of specific instruction or clear, reliable guidance and supervision at key moments left many students struggling and stranded amidst the vast array of things to see, do and learn. Students drew the contrast with their long experience of the predictability, prescription and precision of the formal curriculum in their previous schooling and preclinical years.

Pullout: Students drew the contrast with their long experience of the predictability, prescription and precision of the formal curriculum in their previous schooling and preclinical years.

New risks appear in the hospital environment itself, factors resistant to and beyond our brief to change: huge and labyrinthine buildings, busy and 'unwelcoming' staff, threshold-crossing barriers into patient rooms, persistent routine interruptions to students' patient clerking episodes are just a few of the challenges. Furthermore, the social environment of the hospital is replete with challenges for outsiders and newcomers and students are often stranded, reliant on tiny gestures of friendliness or helpfulness from staff, including their teachers. Many students reflected on the supremely hierarchical and competitive culture of medicine that obstructs their learning and development and, as others have found, this challenges novices' efforts to simply fit in.[4]

Pullout: New risks appear in the hospital environment itself, factors resistant to and beyond our brief to change: huge and labyrinthine buildings, busy and 'unwelcoming' staff, threshold-crossing barriers into patient rooms, persistent routine interruptions …

And yet, we know that students need to have a positive regard for the educational environment they interact with, to sense that it is contributing positively to their growth and development. Education providers now have access to a new robust instrument to measure students' perceptions of and satisfaction with their learning climates, both in preclinical and clinical settings.[5] At another level, there is increasing research interest in the complex process through which medical students' identities are being constructed as they participate in all their usual learning activities including interacting with patients.[6] The very ways they go about ensuring access to patients for learning, for example, has been found to influence their emerging medical identities.[7] Once again, we see here, it is the interaction between the individual and the environment that requires attention as students strive to belong, to be a participant, to feel secure, to find their place and to optimize their learning on the way to being practitioners.

Pullout: It is the interaction between the individual and the environment that requires attention as students strive to belong, … to find their place and to optimize their learning

The proximity and status of the first year, on-campus medical student group will always provide a convenient starting point for interventions that do the important work of identifying and supporting those at-risk. What is also needed is a profound appreciation of their interaction with the less accessible but risk-filled clinical learning environment into which these students transition and need to succeed. The education program itself needs to be superbly well-tuned, clear and responsive if it is to compensate for the challenges inherent in the physical, organizational and social structures of health services.

Pullout: The education program itself needs to be superbly well-tuned, clear and responsive if it is to compensate for the challenges inherent in the physical, organizational and social structures of health services.

References

1. Kebaetse MB, Kebaetse M, Mokone GG, Nkomazana O, Mogodi M, Wright J, Falama R, Park E. Learning support interventions for Year 1 medical students: a review of the literature. *Med Educ* 2018; **52** (3): [production to add page ranges]
2. Dornan T, Tan N, Bozhuizen H, et al. How and what do medical students learn in clerkships? Experience based learning (ExBL). *Advances in Health Science Education.* 2014;19(5):721-749.
3. Barrett J, Trumble SC, McColl G. Novice students navigating the clinical environment in an early medical clerkship. *Med Educ* 2017;51(10):1014-1024.
4. Sheehan D, Wilkinson TJ, Billett S. Interns' participation and learning in clinical environments in a New Zealand hospital. *Academic Medicine.* 2005;80(3):302-308.
5. Krupat E, Borges NJ, Brower RD, et al. The Educational Climate Inventory: Measuring students' perceptions of the preclerkship and clerkship settings. [published online 10 June 2017] *Academic Medicine.* 10.1111/medu.13357
6. Monrouxe L, Poole G. An onion? Conceptualising and researching identity. *Med Educ* 2013;47(4):425-429.
7. Warmington SG, McColl GJ. Medical student stories of participation in patient carerelated activities: the construction of relational identity. *Advances in Health Science Education.* 2017;22(1):147-163.

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Title:
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Date:
2018-03-01

Citation:
Barrett, J. & McColl, G. (2018). Where is student support most needed?. MEDICAL EDUCATION, 52 (3), pp.246-247. https://doi.org/10.1111/medu.13517.

Persistent Link:
http://hdl.handle.net/11343/283627

File Description:
Accepted version