

Balance of clinical commitments and learning at the work place – Theoretical concepts and challenges

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Abstract

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Introduction

The current atmosphere in the National Health Service (NHS) has been changing significantly with respect to the amount of clinical commitment expected of a trainee and the postgraduate medical education.

The teaching and learning which is focused on and usually directly involving patients and their problems lies at the heart of medical education.⁽¹⁾ The learning environment has been described by Bloom⁽²⁾ as early as 1965 when it was suggested that the environment is a combination of conditions, forces and external stimuli that influence the individual in learning. The learning environment could be divided into clinical and academic environment. The clinical environment encompasses all that surrounds the students, including the clinical settings, the equipment, the staff, the patients, the mentors, and the teacher. The academic surrounding encompasses only the teacher and fellow students and is controlled by the teacher in a teacher-centered model or the student in a student focused model of learning. The clinical environment is hard to control and there are lots of stimuli, which makes it even tough for students to pick up what is essential and give up what is not.⁽³⁾ “A working environment that is conducive to learning is critically important to successful training” SCOPME.⁽⁴⁾

During the process of medical and nursing training the students are placed in various clinical settings like hospitals, surgeries, out-patient departments, medical wards, Accident and Emergency (A&E), and nursing homes to expose them to a flavour of medical specialties and environments. It was found in a study⁽⁵⁾ in nursing homes that the positive experience during clinical placements may influence their career choices and so it is essential to give due diligence to the learning climate for students in clinical placements. Appropriate clinical learning climates have been found to be predictors of medical student's satisfaction and success.^(6,7) The terms such as ‘clinical learning climate’ and ‘learning environment’ have been used to describe the ‘soul and spirit of the medical school’.^(6,8) It has been suggested that the medical departments where the students are placed for their training must understand the need of student participation in learning,

ways of fostering learning, facilitate participation by explaining rules and customs of the workplace, and clarification of expectations from students.⁽⁹⁾ There is hence a need to comprehensively focus on the factors that are needed to fine-tune the balance between the clinical commitments at the work place but also meet the educational and learning outcomes.

Aim

To review the understanding of a fine balance that needs to be present between the clinical commitments and educational / training requirements in postgraduate medical education.

Method

This is a review article based on the question which has been posed in the ‘aim’ section. A number of search engines have been used to gather the articles that formed the literature base for this article. NHS database, NHS Athens and NHS library was the main source of data search. Once articles were scanned on the basis of abstract reading a list of full articles was sought from the search engines. Meta-analysis, systematic reviews, review articles, and reports formed the evidence-based literature to be used for this article. The articles which have been included are broad based incorporating some of the pivotal aspects of educational theories, learning climate, work commitments and behavioural patterns of both work place and individuals.

Results

Knowles⁽¹⁰⁾ (1990) has put forward some important aspects and characteristics of adult learners which are significant to know when understanding the clinical learning environment as a whole; the adult learners have a specific purpose in mind, they are voluntary participants in learning, they require meaning and relevance, they require active involvement in learning, they need clear goals and objectives, they need feedback and they need to be reflective.

A robust integration of work, experience and training is essentially beneficial not only for trainers but also for trainees as this increases their learning

opportunities. The effective blend of service (work) with experience of training is essential for trainees integration into learning opportunities available to them.⁽¹¹⁾

The Maslow's Hierarchy of needs and educational

motivation: Physiological, security, social, and esteem needs are **deficiency needs** and emerge due to deprivation. Satisfying these lower-level needs is important in order to avoid unpleasant feelings or consequences. Maslow termed the high level needs of the pyramid as growth needs and they stem from a desire to grow as a person.⁽¹²⁾ Though the pyramid, which is used to depict Maslow's hierarchy of needs, has been used for a long time, there have been also some criticism in the way some of the aspects of 'self-actualization' are depicted with a closed triangle which some researchers felt could be left open as 'self-actualization' is a continuous process and doesn't end.⁽¹³⁾ Regarding 'self-actualization' itself there have been criticism to his theory and in an extensive review of research on Maslow's theory,⁽¹⁴⁾ found little evidence for the ranking of needs that Maslow described or even for the existence of a definite hierarchy. But Maslow's theory is difficult to test because of the nature of the subject matter, the difficulty with defining the concepts and the high degree of overlap, for example between love and esteem, or physical and safety needs.⁽¹⁵⁾

Theorists and researchers have suggested that the adult learning process needs motivation, which can only be achieved if the basic physiological and safety needs are met.⁽¹⁶⁾ It has also been suggested that learners perceive education in more accurate terms when the basic needs have been met and the process of learning becomes the priority.⁽¹⁷⁾ It can be concluded from these observations that learning and education in adult life is more of a complex evolving process which continues to grow and can be placed at the 'esteem' and 'self-actualization' level of Maslow's hierarchy of needs when the basic physiological, safety and belonging needs are met / fulfilled.

The learning climate at work place and its influence on learners:

a. Physical climate: Since the early 1900s, technology, beginning with film, then radio, television and video were brought into the learning environment;⁽¹⁸⁾ currently, the computer, tablets and SMART boards have been introduced into instructional settings⁽¹⁹⁾ which have also been used at the workplaces routinely. Research conducted in the study⁽²⁰⁾ of physical environment and its role in shaping the learning process suggests learning environments are envisioned as places where the learner is engaged in self-directed and co-operative learning activities, and the physical environment is planned so that it can be routinely re-organised to mediate learning. The physical environment needs

to be bigger, more flexible, provide access to technology, promote interaction and a sense of community, enable formal and informal learning and convey a sense of energy. The environment should be a place people want to be, not a place they have to be. They should be motivated by fun and enjoyment as much as by a desire to learn.⁽²⁰⁾

b. Motivational and emotional climate of learning:

The prime motivation to attend and participate at the academic and educational meeting at workplaces for medics is learning, getting an update on advancements in the specific disciplines, acquiring continuing professional development (CPD) points, meeting peers and colleagues. The attendance is considered as quite an important motivator for people to attend which allows accumulation of CPD points and also for junior doctors the attendance is mandatory in many places. Some researchers have used the key elements of the achievement goal theory to operationalize the concept of motivational climate as a situation-induced environment directing the goals of an action in achievement situations.^(21,22) The results of a study⁽²³⁾ conducted in the physical education environment indicated that a motivational climate fostering self-determination was associated with more adaptive outcomes from participation in these classes, specifically high enjoyment, low anxiety, and high effort compared to an ego-involving climate. Describing and defining emotion had been a historical problem and sometimes has been seen as a repellant to empirical and objective research probably due to semantic over abundance in describing its phenomenology.^(24,25) After analyzing a number of survey reports⁽²⁵⁾ it could be concluded that the psychological components of emotions can be described as the component of cognitive appraisal or evaluation of stimuli and situations, the physiological component of activation or arousal, the component of motor expression, the motivational component, including behaviour intentions or behavioural readiness and the component of subjective feeling state. Some of the key ideas attached to the learning organisation are: team work and team learning, free information flow, training of the workforce, learning reward systems, continuous improvement of work, flexibility of company strategy, decentralised hierarchies and participative management, constant experimentation at work and supportive culture.⁽²⁶⁾ The recent junior doctor's contract controversy in the UK has undoubtedly created an atmosphere of anxiety and dismay among trainees impacting on their willingness to undergo grueling training process. This contradicts what Kohn⁽²⁷⁾ (1993) referred as "relaxed alertness" which when lacking impedes the process of meaningful learning.

- c. **Intellectual climate:** Academic research cultures include disciplinary or interdisciplinary ideas and values, particular kinds of expert knowledge and knowledge production, cultural practices and narratives (for instance how research is done, and how peer review is exercised), departmental sociability, other internal and external intellectual networks and learned societies.⁽²⁸⁾ The Oxford Learning Institute⁽²⁹⁾ (2011) elaborated that in institutions a good intellectual climate research students feel respected, supported, stimulated and involved and overall there is recognition that students are not just engaged in research but also in developing their identities as researchers. They experience opportunities to interact with fellow students, academics in their department and in their broader field and feel well integrated rather than isolated.

Discussion

A case for progressive multidisciplinary learning model:

Learning is a life long process and progresses as we move on to various hierarchies in our lives. Knowles⁽¹⁰⁾ defined 'andragogy' as the art and science of teaching adults; he viewed adult learners as mature and self-directed learners who come into learning to solve problems. As we move on from more self-centered learning as a child to that of collaborative learning we learn from a variety of sources and people whom we are working with. Research has been conducted to draw similarities in different faculties of training systems to see the parallels with medical specialties and Helmreich⁽³⁰⁾ has proposed some similarities in aviation and medical specialty. He proposed that both medical and aviation environments rely on technical expertise and the ability to function as a team. However, he suggests that organising health care professionals to work as a team is likely to be about as successful as 'herding cats'.⁽³⁰⁾

Teamwork model: In Australia there has been a historic perceived difference of opinion between the disciplines of midwifery and Obstetrics, which are detrimental to the team working especially in emergencies.⁽³¹⁾ The foundation of the **In Time (Interdisciplinary Team work In the Management of Emergency)** course is based on the formation of small multidisciplinary teams that spend the entire day together, thereby enabling the beginnings of true cohesion and teamwork. The teamwork theme continues throughout the day, with a different concept being explored after each session. In this way, by the end of the course there is a true understanding that teamwork is as important as clinical skills.⁽³²⁾ The Louisiana State University offers the Honors 2000, which is a service-learning course for all entering Honors College freshmen. This course 'Critical Analysis and Social Responsibility: The Human Response to Disaster and Disease', is taught

collaboratively by multidisciplinary teams of faculty at the Louisiana State University. The research was conducted among the students to find out the role multidisciplinary teams could play in learning from each other. The academicians teaching on this course came from various specialties like architecture, education, environmental studies, oceanography, and social work. Each member of this team had been directly and actively involved in recovery activities following Hurricanes Katrina and Rita during 2005 and thereafter.⁽³³⁾ The format of this course was that each professor from various disciplines would teach the students on their perspectives. For example, the social work professor taught on post-traumatic stress disorder, presenting the internal challenges faced by those who experience the disaster. The professor of coastal environment lectured on the unique vulnerabilities of the coastal area to natural disasters, presenting his own research to deepen understanding of the creation and prevention of such disasters. The professor of disaster management contributed the history of disasters and human responses to disaster and disease. The professor of architecture described the importance of place and space, including safe building designs for safe communities. The professor of education helped design, facilitate, and consolidate learning and assessment activities.⁽³³⁾ The outcome of this course is that it developed an innovative idea and learning from various disciplines and it was found that within limited funding resource this could be implemented.

Interdisciplinary learning: A longitudinal study⁽³⁴⁾ at Saint Louis University (SLU), USA (2012) explored attitudes and perceptions towards inter-professional collaboration before and after an introductory Inter-professional education (IPE) course. Around 305 students completed questions from the University of West England Inter professional Questionnaire (UWE IQ) and Readiness for Inter professional Learning Scale (RIPLS). This study showed that students offered inter-professional education early in their professional preparation not only developed positive attitudes towards learning but also attained higher confidence levels in interacting and maintaining multi-disciplinary relationships while working in a collaborative manner. It also indicated that such students had a positive attitude towards learning.

Conclusion

- **Multidisciplinary learning:** The current system of mono-disciplinary teaching and learning could further be enhanced if more multidisciplinary learning atmosphere is created.
- **Teamwork learning:** Team work has been explored to be quite pertinent to multidisciplinary teams; joined up learning with multi-professional team is found to be of advantage in situations like disaster management.
- **Inter-professional engagement:** The inter-

professional ‘point of views’ and ‘conflicts’ cannot completely be abolished but more inter-professional learning engagements could help resolve some of the issues.

- **Case for change:** The physical, motivational, emotional and intellectual climate of learning at workplaces can adapt a multidisciplinary model that envisages a more advanced, self-resourced, comprehensive academic atmosphere, which will be complementary to staff and patients.

References

- Spencer, J. (2003). ABC of learning and teaching in medicine Learning and teaching in the clinical environment. *British Medical Journal*, 326:591-594.
- Bloom, B. S. (1965). *Stability and change in human characteristics*. John Wiley and Sons, New York.
- Papp, I., Markkanen, M., Von Bonsdorff, M. (2003). Clinical environment as a learning environment: student nurses’ perceptions concerning clinical learning experiences. *Nurse Education Today*, 23:262–268.
- Standing Committee on Post-graduate Medical Education (1991). *Improving the Experience: Good Practice in SHO Training*. London: SCOPME.
- Robinson, A., Andrews-Hall, S., Cubit, K., Fassett, M., Venter, L., Menzies, B., et al. (2008). Attracting students to aged care: The impact of a supportive orientation. *Nurse Education Today*, 28, 354-362.
- Genn, J. M. (2001a). AMEE Medical Education Guide No. 23 (Part 1). Curriculum, environment, climate, quality and change in medical education – a unifying perspective. *Medical Teacher*;23(4):337–44.
- Seabrook, M. A. (2004). Clinical students’ initial reports of the educational climate in a single medical school. *Medical Education*;38(6):659–69.
- Genn, J. M. (2001b). AMEE Medical Education Guide No. 23 (Part 2). Curriculum, environment, climate, quality and change in medical education – a unifying perspective. *Medical Teacher*;23(5):445–54.
- Boor, K., Scheele, F., Vleuten, C. P. M., Teunissen, P. W., Breejen, E. M. E., Scherpbier, A. J. I. A. (2008). How undergraduate clinical learning climates differ: a multi-method case study. *Medical Education*;42:1029–1036.
- Knowles, M. S. (1972). Innovations in teaching style based upon adult learning. *Journal of Education for Social Work*,8(2),32-39.
- Stanley, P. (1998) Structuring ward rounds for learning: can opportunities be created? *Medical Education*, 32, 239-243.
- Maslow, A. H. (1943). A Theory of Human Motivation, *Psychological Review* 50:370-96.
- Kiel, J. M. (1999). Reshaping Maslow's hierarchy of needs to reflect today's educational and managerial philosophies. *Journal of Instructional Psychology*;26(3):167.
- Wahba, M. A., Bridwell, L. G. (1976). Maslow reconsidered: A review of research on the need hierarchy theory. *Organizational Behavior and Human Performance*, 15:212-240.
- Reid-Cunningham, A. R. (2008). Maslow's Theory of Motivation and Hierarchy of Human Needs: A Critical Analysis. *School Social Welfare – University of California, Berkely*. Available at: <http://www.scribd.com/doc/8703989/Maslows-Hierarchy-of-Needs-A-Critical-Analysis>
- Hoffman, E. (1988). *The right to be human*. New York: St. Martin's Press.
- Tuckman, B. W. (1992). *Educational psychology: from theory to application*. New York: Harcourt Brace Jovanovich.
- Oliver, C. (2004), “Teaching at a Distance: The Online Faculty Work Environment”, unpublished dissertation, The City University of New York, New York.
- Lippman, P. C. (2010). Can the physical environment have an impact on the learning environment? Available at: <http://www.oecd.org/dataoecd/50/60/46413458.pdf> (Quoted: Partnership for 21st Century Skills (2002). “Learning for the 21st century: A report and mile guide for 21st century skills”, Available at: www.21stcenturyskills.org/images/stories/otherdocs/p21u_p_Report.pdf
- Cornell, P. (2002). The impact of changes in teaching and learning on furniture and the learning environment. In N. Van Note Chism. & D. J. Bickford (Eds.), *The importance of physical space in creating supportive learning environments*, (pp. 33-42). San Francisco: Jossey-Bass.
- Ames, C. (1992a). Classrooms, goals, structures, and student motivation. *Journal of Educational Psychology*, 84, 261–271.
- Ames, C. (1992b). The relationship of achievement goals to student motivation in classroom settings. In G. Roberts (Ed.), *Motivation in sport and exercise* (pp. 161–176). Champaign, IL: Human Kinetics.
- Liukkonen, J., Barkoukis, V., Watt, A., Jaakkola, T. (2010). Motivational Climate and Students’ Emotional Experiences and Effort in Physical Education. *The Journal of Educational Research*, 103:295–308.
- Scherer, K. R. (1984a). “Les émotions: fonctions et composantes”, *Cahiers de Psychologie Cognitive*, Vol. 1, pp. 9-39.
- Scherer, K. R. (1984b). “On the nature and function of emotion: a component process approach”, in Scherer, K. R. and Ekman, P. (Eds), *Approaches to Emotion*, Erlbaum, Hillsdale, NJ.
- Rosengarten, P. (1995), “Learning organisations and their characteristics: the case of automotive components suppliers in Britain”, presentation at the 1995 ECLC Conference, Warwick, UK.
- Kohn, A. (1993). *Punished by Rewards*. New York: Houghton Mifflin.
- Deem, R., Brehony, K. J. (2000). Doctoral Students’ Access to Research Cultures-are some more unequal than others? *Studies in Higher Education*, 25:2, 149-165.
- Oxford Learning Institute, (2011). *Intellectual Climate*, University of Oxford. Available at: <http://www.learning.ox.ac.uk/supervision/environment/climate/>.
- Helmreich, R. L. (2000). Education and debate. On error management; lessons from aviation. *British Medical Journal*;320:781–785.
- Reime, B., Klein, M. C., Kelly, A., Duxbury, N., Saxell, L., Liston, R., Prompers, F. J., Entjes, R. S., Wong, V. (2004). Do maternity care provider groups have different attitudes towards birth? *British Journal of Obstetrics and Gynaecology*;111:1388–1393.
- Kuliukas, L., King, S., Ford, J. (2009). Just IN TIME: a multidisciplinary small group learning experience. *The Clinical Teacher*, 6:272–276.
- Plummer, C., Buchanan, T. K., Kennedy, C. B., Rouse, L., Pine, J. (2011). Broadening Perspectives: A Multidisciplinary Collaborative Teaching and Learning Experience. *Journal of Community Engagement and Scholarship*;4(1):60-69.

34. Ruebling, I., Pole, D., Breitbach, A. P., Frager, A., Kettenbach, G., Westhus, N., Kienstra, K., Carlson, J. (2013). A comparison of student attitudes and perceptions before and after an introductory interprofessional education experience. *J Interprof Care* 28(1), p 23-7.