

UNDERSTANDING SELF-DIRECTED LEARNING FOR SALVAGING MEDICAL EDUCATION DURING COVID 19 LOCKDOWN

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Received: 05/12/2020

Revised:16/12/2020

Accepted: 24/12/2020

ABSTRACT

Today self-directed learning is a standard norm in institutions of repute for developing professional apprentices into lifelong learners. Medical education being a lifelong process compels the doctors to learn throughout their professional career as the practice of medicine and its underlying knowledge base changes very rapidly. In the present settings, SDL is also essential for medical students to help them develop self-regulating learning skills, more accountability, decisiveness and responsibility which are the pillars of a medical profession. In the available literature, SDL has been linked closely with Problem based learning(PBL) and often they are used interchangeably as SDL is initiated only after a problem or educational challenge. Medical education stresses upon patient care mainly, where learning from patients becomes utmost important. In this lockdown due to COVID19, medical education has suffered a lot but there have been attempts to compensate through virtual classes. So, the quest of learning and the need of continuous dissemination of knowledge in medical education have paved the way for SDL during this COVID-19 pandemic time. This way of learning will always be part of our system without any coercive action for its inclusion in the curriculum, but for transforming our education to a better level, SDL needs to be part of our curriculum. This paper highlights the importance of SDL in adult learning with special reference to medical education and its relevance during COVID 19 time.

KeyWords: Self-directed learning, problem based learning, medical education

INTRODUCTION

Information and Communication technologies have changed the arena of learning and had an enormous impact in education in last two decades. In order to supplement individual knowledge, people constantly resort to internet technologies. In adult learning, these technologies have been proven to be very effective. They have also aided many learning theories to be existent in real sense. The humanistic theories amongst all learning theories is centered on the learner and these theories primarily focus on individual development. It targets learners who are self-motivated and have the potential to formulate their learning goals. Self-directed learning is the core of the humanistic learning theory emphasizing on

autonomy and individual freedom in learning. Self-directed Learning (SDL) is defined as learning on one's own initiative, with the learner having primary responsibility for planning, implementing, and evaluating the effort (1,2). As defined by Knowles, self-directed learning is a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes, that is, they take responsibility for, and control of, their own learning (3). In higher education it is a vital principle that has

been promoted by various institutions due to its value in developing professionals to become lifelong learners (2). Medical education being a lifelong process compels the doctors to learn throughout their professional career as the practice of medicine and its underlying knowledge base changes very rapidly. However, professional education is not so simple as it requires not only keeping up to date, but it also reflects on practice for incorporation of new experiences, to relate the present and past experiences and also for reorganization of current experiences based on the whole process. These facilities are provided to the student or the practitioner by concept of Self-directed learning. In the present settings, SDL is also essential for medical students to help them develop self-regulating learning skills, more accountability, decisiveness and responsibility which are the pillars of a medical profession. In the same way, medical educators feel a need of SDL for creating students who can understand their own learning needs for their career development and develop a critical thinking for better decision making in their professional life (1,3). Health professionals also need to be self-motivated and self-independent for building self-confidence in practice. It's also a prerequisite to be in race and to cope up with the explosion of information in continuously evolving medical knowledge during their careers (1,4).

SDL is an efficient and effective learning tool for medical students (5). SDL can be very helpful for learning Anatomy and Physiology as it is demonstrated in many studies (6,7). Improvement of communication skills, and enhancement of self-governance as well as decision making skills can be improved by SDL (8). Comparison of SDL with traditional lectures in many studies have also shown that in self-directed groups were able to achieve better results than the groups who received lectures (9-11). It should be ensured that self-directed learning skills are a part of medical education as it is found to be a pre requisite for being a good doctor as the medical education has totally relied on didactic methods of teaching which in no way can help the students to build the quality of lifelong learning. There are multiple modalities which have been used for providing instructions for SDL for increasing their enthusiasm and readiness and they are effective only if they have realistic objectives which can help the learners to apply these modalities wherever they are in a situation to learn by themselves (12-17). Problem based learning or case based scenarios, small group learning, self and peer evaluation, self-

study materials, projects and library works, computer based learning, simulated patients are some of the different types of modalities being used for SDL (18-20). Based on adult learning, Schmidt gave three principles for teaching to be more effective and relevant. (a). Building on prior knowledge (knowledge that the students already have is used to understand and structure new information), (b) Learning in context (transfer of learning will be more if the learning situation and the actual situation where it is to be applied closely resemble each other) and (c) Elaboration of knowledge (Question and answers, discussions, peer education). In the literature, SDL has been linked closely with Problem based learning (PBL) and often they are used interchangeably as SDL is initiated only after a problem or educational challenge (21-22). PBL is defined by Barrows et al as learning that results from the process of working towards the understanding of a resolution of a problem; the problem is encountered first in the learning process (23-25). Therefore, components of SDL are often included in the curriculum of PBL, where the teacher is in the role of facilitator for the development of learning and not as the source of learning (24). They help the learners to inculcate skills and behaviours for SDL. Problems associated with the cases are discussed by the students and facilitators using theoretical approaches and this helps students to identify gaps in their knowledge and the results and solutions of the problems are then discussed at other group sessions (26-30). Alternatively, didactics and learning objectives by teachers can also be included in the PBL Curriculum (31-32). Teamwork, cooperation with others, communication skills, appreciation of others views and interaction skills are promoted by PBL and so it is essential for group education (28,32). Prince et al also demonstrated that attitudes and skills for communication and interaction are enhanced by PBL (33). India is rich in its cultural heritage as well as culture which has an important role in learning process. Culture actually means beliefs or customs or practices followed by a group of people at a time or place and it also reflects the way of thinking on various situations based on experiences, familial practices, collectivism or honour (34). It plays a pivotal role in the academic settings in deciding the way of communication and learning as the practices, norms attitudes and beliefs are being inculcated in the children much before they are ready for formal education (2,35). The instructors also share their own experiences and beliefs in their classrooms as per their own cultural practices (36). Parents and the

social environment of the families also affects the education process of children (37).

The success of SDL depends basically on the educator being a facilitator who can identify the learning needs and commit to a learning contract. Identification of resource, the process of implementation and the evaluation of learning are also the key factors of SDL. Various theories and educational concepts including theory of adult education, empowerment, humanism, constructivism, Schon model and Kolb learning cycle shows consistency with SDL (38). Adults are mature, independent, self-directed, motivated, responsible, have self-respect and their own individuality, so, their learning is also dependent on their needs, social roles and previous experiences (39). Thus, SDL, that offers a partnership approach between learner and teacher, is more appropriate for adult learners (40-42). The limitation of SDL is the absence of standardised methods to assess learner's readiness for SDL and the heterogeneity in implementation and definitions of SDL by educators. Also, there is a lack of evidence on the appropriate content for SDL. Still, SDL has a great potential to promote and facilitate lifelong learning in medical education.

In medical education, when you need to stress upon patient care, learning from patients is utmost important. In this lockdown due to COVID19, education has suffered a lot but there have been attempts to compensate through virtual classes. Medicine needs actual patients to learn the practical aspects of clinical diagnosis and treatment. Previously it was done easily through clinical postings and ward duties. It served as a hands on training for the medical students. But as the situation now is very different due to the Covid pandemic, and social distancing has to be practiced in each and every field, it is the need of the hour to switch gears from our comfortable default mode to different perspective mind sets of online teaching, where the importance of SDL cannot be overlooked. There are irrefutable advantages of online training such as low costs, greater flexibility for the teacher as well as students and the facility to cater thousands of people all over the world at the same time(26). In addition, we can also monitor activities of students which helps in breaking the inertia and passivity of usual classroom courses. Although online training seems boring because of lack of engagement and enthusiasm, we simply need to make the class to be dynamic, interactive and entertaining through storytelling, videos and simulators to ensure practice. It may sound quite obvious that we stumble

upon technical difficulties which blocks online training and to solve this, we need to download new soft wares which are sometimes frustrating. Through SDL, teachers as well as students can overcome these problems and understanding the concept of SDL and implementing it in the medical curriculum will lead to the amplification of knowledge (2). Initially it may be difficult for the information to be successfully communicated via both students and teachers, as the teachers may not be gadget friendly and text savvy, to cope up with the style of virtual classes but as it is the only option left for us, introduction of SDL here will surely encourage them. Online classes are a great opportunity not only for the students alone but also for the teachers to enhance their skills. Past and present experiences can be integrated and used skilfully to take the full advantage of the virtual classes. This pandemic phase demands transition, hence, we should have enthusiasm for evolution. "The Change is the law of the nature" as said by McArthur, we should always accept changes that would benefit our society and nation with open mind, leaving orthodox thoughts behind and resisting worse changes, otherwise we would remain old and backward. Humans are complex beings, they adapt, learn, have intelligence and free will, can reason, feel emotions and have conscience. These qualities and attributes stimulates our responses to seek changes for future endeavour without being influenced by other negative thoughts. This way of learning will always be part of our system without any coercive action for its inclusion in the curriculum, but for transforming our education to a better level, SDL needs to be part of our curriculum. As the proverb says "It's better late than never", so, it is the best time to inculcate SDL not only in the medical curriculum, but also in our personal life as this will help everyone to empower each other.

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How to cite this article: Pushpa, Kumari N., Sagar V., Kashyap V., Kumar D., Understanding self-directed learning for salvaging medical education during covid 19 lockdown. *Int.J.Med.Sci.Educ* 2020;7(6):25-29