Short Communication

Motivation for learning among medical students

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Abstract

Today's medical students are the doctors of tomorrow. Therefore, understanding the motivational factors that drive them is imperative if we wish to have motivated medical professionals in our healthcare system.

Motivation is what drives a learner to push towards his goal despite setbacks. It is classified into intrinsic and extrinsic. Intrinsic motivation is intrinsic to an individual and stems from his own interest in something; extrinsic motivation is driven by extraneous factors such as some consequence or outcome. As expected, intrinsic motivation does bring about higher levels of learning and achievement. However, extrinsic motivation also can bring about effective learning, when it involves internalization and integration of values.

Among medical students, motivation depends substantially on their reasons for taking up medicine and has been found to vary in the different phases of the course. Motivation in education can improve students' work ethic and attitude to their subject matter. All students are not equally intrinsically motivated, but a passionate teacher can create an atmosphere conducive to situated motivation and promote learning.

Intrinsic motivation translates into improved study effort and achievement and is facilitated by addressing students' need for competence, autonomy, and relatedness. Autonomy-supportive medical education has the potential to ultimately translate not just into academic achievement, but, in the long run, into better patient care and health-care delivery. Educators should therefore design an educational climate which will foster intrinsic motivation in students, so that they will develop into life-long learners and committed healthcare deliverers of the future.

KEYWORDS: autonomy, competence, medical college, motivation, students

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Background

Medicine remains a popular career choice in India with many youngsters opting for the MBBS course. In most cases, this is a choice that is made by the learner. In some, however, it is a choice made for the learner by his family members. Whatever may be the reason for the choice, the fact remains that the MBBS curriculum is among the heaviest of academic loads and necessitates lots of hard work and sacrifice. This means that unless the learner is

truly motivated, he will not be able to do justice to the coursework and graduate as a competent medical professional.

Motivation has thus far not been accorded much value in medical education.[1]However, it is assuming importance in the field of medicine now, because, globally, human resource development in healthcare is becoming a priority and our country is seeking to do the same through the National Health Mission.[2]Today's medical students are the doctors of tomorrow. Therefore, understanding the motivational factors that operate among medical students is imperative if we wish to have motivated medical professionals, who will be willing to go the extra mile to provide quality healthcare.[2]

Definition of motivation

The Oxford Advanced Learner's Dictionary defines motivation as "the reason why somebody does something or behaves in a particular way" and "the feeling of wanting to do something, especially something that involves hard work and effort". Psychology textbooks define it as an internal state that directs behavior or as a desire that mobilizes action towards a goal.[3] Brisette and Howes (2010) define motivation as "the translation of a person's basic psychological needs and drives, filtered through their view of the world, toward an action with an anticipated result".[4] In the field of education, motivation is what drives a learner to push towards his goal despite setbacks.[5]

Classification of motivation

Motivation appears to be a spectrum ranging from total amotivation at one end to high motivation at the other end with many degrees in between. It varies between individuals and in any individual, it is not constant, but is dependent on the situation.[4] It has two components both quality and strength. Quality refers to the nature or orientation (i.e. why) of the motivation, whereas strength is the amplitude or level (i.e. how much) of the motivation.[6]

The Self-Determination Theory (SDT) of Deci and Ryan classifies motivation into intrinsic and extrinsic. Intrinsic motivation is intrinsic to an individual and stems from his own interest in or enjoyment of something. Extrinsic motivation is driven by extraneous factors such as some consequence or outcome.[7]

Intrinsically motivated individuals evince more excitement and interest in their work and thus bring about higher levels of learning and achievement.[7, 8] Research has shown that those learners who demonstrate high intrinsic and low extrinsic motivation perform better in academics than unmotivated learners and those with a high extrinsic and low intrinsic motivation.[8]

However, extrinsic motivation also can bring about effective learning, when it involves internalization and integration of values. This means that though the motivation remains extrinsic to the individual, the value has been internalized and integrated within the self, resulting in the action becoming self-determined and it is this that brings about the positive outcome. Ryan and Deci suggest that this internalization and integration can be brought about by (i) relatedness – where the learner feels valued by the teacher and is able to connect with him (ii) competence – where the learner feels he has the skills to be able to do a task effectively and (iii) autonomy – where the learner feels his actions are self-determined and not controlled by others.[7]

Measurement of motivation

Instruments have been developed to help assess student motivation both quantitatively and qualitatively. Strength of motivation may be measured using Strength of Motivation for Medical School questionnaire - Revised (SMMS-R), which has 15 questions and uses a 5-point Likert scale.[9]This scale has a high reliability.[1]Nature of

motivation may be studied using the Learning Self-Regulation Questionnaire (LSRQ), which has 12 questions and uses a 7-point Likert scale.[10, 11] Committees can use these instruments to weigh the motives of applicants and rank them.

Factors motivating students to take up medicine

There are many different factors that motivate students to take up medicine. They can be classified into three different domains – scientific, societal and humanitarian. Scientific motivational factors include a passion for medicine as a discipline, desire for research and opportunities for working abroad. Societal factors include job security, high socioeconomic status and bowing to parents' wishes, while humanitarian factors include altruistic tendencies and a desire to do good for the community.[2]

In high income countries, scientific factors predominate and societal factors come lower in the hierarchy. In upper middle-income countries also, societal and scientific factors are operative. However, in low-middle income countries, humanitarian and social factors seem to be the prime influences on motivation, with students wanting to serve the sick and have a high socioeconomic status as well.[2]

In low income countries, personal ambition, the desire of parents, prestige and earning from the profession and altruistic reasons have all been reported as the reasons for opting for medicine. This is true in India as well. In such countries, medical students mostly belong to middle or lower socioeconomic status and are very much aware of the difficulties faced by the poor. They therefore show a greater sensitivity towards the poor and the sick and have a strong desire to serve them.[2]Such individuals with strong feelings of altruism have high intrinsic motivation, and when drawn into the medical profession, can turn out to be capable medical professionals who will serve the nation diligently.[2, 12]

Factors affecting motivation during MBBS Course

The reason for entering medical college is an important factor and those in whom it is a personal choice rather than their parents' desire show higher levels of motivation. Gender is another relevant factor with males showing higher levels of amotivation and lower extrinsic motivation compared to females.[13]

Family support, however, appears to be the most predominant factor in fostering motivation. Time spent with the family, parents' approval and general feelings of family support contribute maximally to motivation in general and intrinsic motivation, in particular. As females tend to form closer bonds with family members, they enjoy and benefit more from this support. It has also been found that among first year students, only family support has this positive impact on motivation and not that of friends. This kind of support is crucial also for the general psychological wellbeing of an individual throughout his life and contributes to the development of positive attributes in him.[13]

Individual personality traits also determine levels of motivation. Research has shown that positive personality traits and positive affect correlate well with intrinsic motivation, which is positively associated with behaviors such as perseverance and determination. Amotivation shows negative correlation with loving-kindness and is closely linked to psychological issues such as depression. It is therefore recommended that teachers keep an eye open for amotivation in their students as it could be a sign of underlying depression.[13]

High marks in school are another factor considered as motivation for studying medicine. However, this provides an extrinsic motivation which may not

continue through the later years in medical college, when the importance of extrinsic motivation subsides. Therefore, school performance does not necessarily turn out to be a predictor of performance in medical college.[13]

After entry into medical college, the motivation of a student begins to depend not only on his intrinsic motivation, but also on other factors such as the curriculum, learning environment and learning opportunities. This results in differences in levels of motivation in the different phases of the course, with the highest levels of motivation being seen in the first phase. More of extrinsic motivation and amotivation are observed with other phases.[14]

One explanation offered is that the medical curriculum downplays the importance of motivational factors and stresses the cognitive component, encouraging competitiveness. Another factor could be the learning environment. A positive learning environment with active learning components and ethical faculty members can foster motivation whereas a negative environment with hidden curriculum and unethical behavior can lead to burnout.[14]

Effects of motivation

Research has shown that in an educational setting, the quality of motivation is more important than the strength of motivation.[15]Motivated learners post a better academic performance and are less likely to drop out of the course.[5]

Motivation in education can improve students' work ethic and attitude to their subject matter. It can increase effort invested in educational activities, lead to goal-oriented behavior and perseverance in the pursuit of goals, enhance cognitive abilities and facilitate improvement in academic performance. All students are not equally intrinsically motivated, but a passionate teacher can create an atmosphere conducive to situated motivation and promote learning.[16]

Motivating students in medical college

Today, an educator needs to be not just a teacher, but a motivator as well.[4]Though extrinsic motivation will work for the majority of students, one must keep in mind that, without internalization and integration, it will be effective only so long as the student remains under those external influences and will not continue when the situation changes or he moves outside that sphere of influence.[3]

Intrinsic motivation translates into improved study effort and achievement in medical education and this is facilitated by student autonomy, feedback and emotional support.[1] It is therefore suggested that teachers focus their attention and efforts in this direction, though it may not work in all students.[3]Going by the SDT, learners can be motivated by addressing their needs for competence, autonomy, and relatedness.[2,4] This means that we need to (i) empower learners to make choices and find direction,[2,14](ii) provide them with optimal educational challenges and positive feedback[2]and (iii) encourage their identification and connection with the medical profession.[2,4,14]

To engage in autonomy-supportive teaching, teachers need to identify learner expectations and act on them.[3]These include teaching sessions being more interactive, students being encouraged to take responsibility for their learning and teachers offering structured guidance while giving the learner choices and space for expression of negative feelings.[5] Medical students are adult learners and teaching them should primarily be a facilitation of learning, while giving them the freedom to direct themselves.[4]Thus, problem-based learning, early clinical exposure, elective courses and standards-based assessment, all of

which are supportive of student autonomy, are being suggested to foster motivation among students in all phases of the medical course.[8]

Teachers and curriculum developers should try to design educational activities that balance student autonomy with positive emotional support.[13]Such activities should be designed keeping in mind the different patterns of motivation among students, so that it will benefit a majority of the learners.[4]Family support also should be strongly encouraged to maintain levels of motivation in students.[13]

Autonomy-supportive teaching will serve to enhance intrinsic motivation in students[5]and if the methods adopted are able to address simultaneously all the three needs of learners as mentioned in the SDT, there will be a synergistic effect.[4]This will help to retain students' interest in the course and will translate into hard work and higher academic performance.[8]These educational strategies will go a long way in also prolonging their interest in learning, thus transforming them into life-long learners, who take responsibility for their own learning.[14]

The significance of motivating medical students

Structuring medical curriculum and assessment without a proper understanding of motivation means that educators are losing an opportunity to enrich the lives and learning of their students. Multiple components of the learning environment including curriculum, assessment methods and teaching styles have an impact on student motivation, not only during their period of study but continuing later into their careers.[4]

Increasing intrinsic motivation in budding doctors by giving students autonomy during the learning phase results in these doctors, during their career phase, acting autonomously with their patients, who, in turn, showed autonomy in their own care and displayed healthy behavior patterns.[15] Autonomy-supportive medical education thus has the potential to ultimately translate not just into academic achievement, but, in the long run, into better patient care and health-care delivery.[4] In the final analysis, that is what will label an educational program "successful".

Conclusion

Motivation may well be said to be a measure of the quality of medical education. Only a truly motivated medical student can become a lifelong learner and develop into a dedicated doctor with a diligent work ethic. Educators should therefore contribute to designing an educational climate which will stimulate self-determination and foster intrinsic motivation in students, so that they will evolve into committed healthcare deliverers of the future.

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