How Self-Determination Theory Applies to Medical Education

The science of motivation has been the subject of intense study among psychologists for decades. For example, self-determination theory (SDT) has been investigated for over 30 years and has an extensive literature to validate its findings. SDT has been widely used in business, education, and health care to enhance motivation, but it has only recently been actively discussed in the context of medical education.

Briefly, self-determination is thought to include three main components that are based on an individual’s innate psychological needs. Autonomy is the desire to be the origin or source of one’s own behavior; or having a feeling of free will (volition) to choose whatever one desires or considers useful to do (i.e., choose one’s own goals). Competence is the desire to feel effective in whatever actions one pursues and performs, or a perception of confidence and accomplishment (similar to self-efficacy). Relatedness is the desire to feel connected with others; a sense of belonging, or feeling accepted and valued by one’s community. All three of these SDT domains are highly relevant to medical practice, and have an important place in medical education, as discussed below.

Self-determination theory has been used in various settings to help explain and foster motivation and self-regulation in relation to autonomy. Motivation falls on a spectrum from amotivation through extrinsic motivation to intrinsic motivation. Motivation and regulation are interconnected. A person who is amotivated is neither internally nor externally regulated (i.e., totally disengaged). A person who is extrinsically motivated acts in accordance with external controls or rules, i.e., is externally regulated, and has low self-determination in that setting. In contrast, an individual who has intrinsic motivation acts for his/her own enjoyment and inherent satisfaction, is intrinsically or self-regulated, and has high self-determination. Between the extremes of this spectrum, people may internalize rules to different degrees. For example, when a rule is announced, some people follow it out of fear of punishment, some because they would feel guilt if they didn’t comply, and some because they believe it is a good rule. An environment full of external mandates (such as which exists in teaching hospitals) is less supportive of individual autonomy than one that supports personal choices and flexible application of rules.

Studies of SDT have shown that individuals who receive autonomy support are more likely to cultivate intrinsic motivation to pursue goals, achieve more personal satisfaction, and ultimately become higher achievers than those who are induced by extrinsic rewards or forced by punishments to pursue the goals of others. Studies in K-12 and higher education have shown higher academic performance when the education is more learner-focused and allows more learner input (refs).

Despite the long history of SDT research, academic medicine has been slow to integrate SDT concepts into educational theory and practice. However, recent studies from Utrecht have been exploring this new territory. They point out that medical school curricula have been adopting more autonomy-supportive methods, with the wide adoption of problem-based learning (autonomy/competence), small group learning (autonomy/relatedness), and more exposure to patients earlier in medical school (relatedness). In studies of resident education, however, application of SDT concepts has been limited. We have become interested in SDT because it may be useful in improving the learning climate within our residency program.

References: