Purpose: Self-directed learners determine their own goals for learning, construct plans to achieve that learning, and take steps to execute those goals (Long, 2000). However, the independent thought and action required of medical student self-direction can conflict with academic achievement, which requires demonstrating competence according to established standards. As values, self-direction indicates personal motivation to follow emotional and intellectual interests in unpredictable and uncertain directions, while achievement requires learners to focus on their own personal interests even at the expense of others (Schwartz, 2004). Differences in student characteristics such as personality (Cazan and Schiopca, 2014) and emotional intelligence (Radnitzer, 2010) have been reported to impact self-directed learning.

The purpose of this study is to analyze the relationships of self-reported values of medical student self-direction and achievement, and the impact of personality and trait emotional intelligence on those values.

Approach/Methods: In 2014-2016, 197 M-1/M-2 medical students voluntarily completed these self-reported surveys: (1) 50-item Five Factor NEO PI-R Personality Inventory (scale: 1=very inaccurate, 5=very accurate), (2) 30-item Trait Emotional Intelligence (1=completely disagree, 7=completely agree), (3) 56-item Schwartz's Value Inventory (0=not important, 7=supreme importance). Pearson (r) and Spearman correlations, and stepwise multivariate linear regressions determined significant associations with the data and were generated with IBM® SPSS® 24.0. This research was IRB approved.

Results/Outcomes: There was a statistically significant correlation between self-direction and achievement (r=.6, p<.001). All 30 inter-item correlations between self-direction and achievement were statistically significant (range: rho=.2-.5, p<.050), with the strongest correlation between the self-direction item “being independent” and the achievement item “being capable” (rho=.5, p<.001). A significant regression model (R²=.4, p<.001) indicated that there were four self-direction predictor items of achievement: being curious (beta=.31), being independent (beta=.28), choosing own goals (beta=.18), and having self-respect (beta=.13).

The domain level correlation of self-direction and the personality domain openness to experience was significant (r=.4, p<.001). Self-direction was correlated to the intrapersonal emotional intelligence domain self-control (r=.3, p<.002).

The domain level correlations of achievement and the personality domains of conscientiousness (r=.2, p<.008), extraversion (r=.2, p<.004), and neuroticism (r=-.2, p<.012) were significant. Achievement was correlated to the intrapersonal emotional intelligence domain self-control (r=-.3, p<.020).

An updated regression model included: (a) the self-direction items, (b) three personality items (make friends easily (beta=.23), enjoy art (beta=-.16), enjoy new ideas (beta=.14)), and (c) four emotional intelligence items (have personal strengths (beta=.31), find life enjoyable (beta=-.19), can influence the way people feel (beta=-.14), and deal effectively with people (beta=-.13)).

Discussion: Medical student self-direction and achievement values are moderately and positively associated which suggests they are complementary values. However, the associated domains of personality and trait emotional intelligence are completely different for each value. This suggests that different personal characteristics are required for self-direction and achievement and make the values compete with each other and could explain their moderate correlation. Self-control and being open to experience impact self-direction, while well-being and being conscientious, extraverted, and emotionally stable impact achievement.

Significance: Self-direction and achievement are complimentary values, but competing elements of personality and emotional intelligence will impact one value over the other.


Level of Audience: Mid-career
Focus of Presentation: UME
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Purpose: "A physician shall uphold the standards of professionalism, be honest in all professional interactions, and strive to report physicians deficient in character or competence, or engaging in fraud or deception, to appropriate entities". (1) This statement is applicable to both physicians and medical students. A majority of medical students endorse a professional obligation to report unfit colleagues, but it is unclear how they actually respond to their peers’ unprofessional behaviors. (2) This study aims to provide insight into students’ motivation to respond or not to respond to professionalism lapses of peers, and into the nature of any possible responses.

Approach/Methods: Based on a constructivist paradigm, we conducted an explorative, qualitative study using grounded theory to capture students’ experiences through individual interviews with randomly selected undergraduate medical students attending AAMC 2016 in Seattle. Independent coding of transcripts, and identification of themes were accomplished by three investigators (MM, AT, RAK) in a constant-comparative process. For theory generation, the analysis was raised from the categorical to the conceptual level involving the full research team. Discrepancies were discussed among the team until consensus was reached. This study was qualified as exempt of ethical approval by the University of California, San Francisco IRB.

Results/Outcomes: Twelve medical students –from ten different US medical schools– were interviewed, who observed the following unprofessional behaviors among their peers: being absent or late, disrespectfulness to faculty or peers, privacy violations in social media, lying and cheating. Students either did not respond, or responded individually or collectively by addressing their peer, or by reporting the behavior to responsible faculty. Students generally did not respond if they did not know how to respond, if their peer’s lapse did not affect their own learning, if they believed responding would be unproductive or if they feared retaliation. Students were more likely to respond to an observed professionalism lapse of a peer if they perceived their peer or the responsible faculty member as approachable, if they could respond collectively, if they were personally affected, or if they thought the peer, or all students could benefit from their actions.

Discussion: Our findings can be explained with the expectancy-value-cost model that recognizes three components in motivating someone to respond to an event: (i) having expectancy of success (e.g. in our study, perceiving responding as productive because a collective response was possible, and/or the peer or responsible faculty member seemed approachable, (ii) knowing the value in engaging (here: creating benefit for themselves, the peer, or for all students), and (iii) the costs of engaging in a response (here: perceived retaliation from peers/faculty). (3) Thus, for a student to respond to a peer’s professionalism lapse he/she has to expect success in getting the expected action from the peer or faculty, to understand the benefit of the action for the students, and not have to pay a cost for responding. If the student perceives a deficiency in any one of these aspects, the chances of responding are very low.

Significance: Medical schools need to create a learning climate that encourages the discussion of professionalism lapses among students and faculty.

References:

Level of Audience: Mid-career
Focus of Presentation: UME
PRESENTER: Marianne Mak-van der Vossen
ABSTRACT BODY:
Purpose: With the development of the practice-based learning and improvement competency domain, the Accreditation Council of Graduate Medical Education heralded the necessity of self-directed learning (SDL).\(^1\) SDL encompasses the process of identifying knowledge gaps, generating learning goals (LG), and subsequent action to ensure future learning preparedness.\(^2\) This study investigates the contributions of self-assessment (SA) and external feedback from standardized patients (SP) on the development of LG after clinical skills assessments while also looking at the influence of these factors on LG recall and implementation.

Approach/Methods: A short-term, longitudinal educational intervention was conducted with 85 second year medical students enrolled in a clinical skills course. Following a clinical skills assessment, students completed a SA and received individualized SP feedback and guidelines on LG development. Each student subsequently created a LG. Investigators categorized LG as stemming from 1) students’ self-assessments only, 2) SA confirmed by feedback, 3) SA in disagreement (discordant) with feedback, or 4) SP feedback only, or 5) feedback in disagreement (discordant) with SA. Data was summarized with descriptive statistics. Two weeks later, students were asked to recall their LG and describe actions taken to achieve this goal.

Results/Outcomes: All participants wrote a learning goal. Self-assessment influenced LG 83% of the time and feedback influenced LG 63.3%. Students rarely generated LG based on SA when they received discordant feedback (4.7); however, they sometimes incorporated the discordant feedback into their LG (15.3%). A one-way ANOVA showed a statistically significant association between source of LG and clinical skills assessment scores, \(F(3, 80) = 3.6, p < .05\), and post-hoc comparisons indicated that students who developed LG based on SA that was in disagreement with feedback performed worse (M = 83.4) than those who developed LG based on SA only (M = 93.2), SA and feedback (M = 92.8), and feedback in disagreement with SA (M = 92.0), all \(p < .05\). Follow-up data showed 62% of students recalled LG at 2 weeks with 70% of these acted upon. Students with a higher SA were more likely to act on LG than those with low or average SA, \(\chi^2(2) = 7.7, p < .05\). There was no significant difference in recall or action by source of learning goal or student performance.

Discussion: Following SP clinical skills assessment feedback, the majority of student learning goals were generated from self-assessments with SA being strongly predictive of learning goal actions. This suggests that although SAs are flawed, they are essential in goal setting and subsequent action. Students with the lowest self-assessment were the least likely to follow through on their goals despite feeling the need to improve, suggesting a lack of perceived competence leading to decreased motivation to learn.

Significance: Self-assessment in clinical skills performance is an essential part of goal setting and subsequent action. Future work will focus on reducing discrepancies between self-generated and feedback-based goals and enhancing feelings of competence in students with poor self-assessments.


Level of Audience: Mid-career
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