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Letter to editor

Leveraging the Pygmalion Effect to Unlock Student Potential in Medical Education

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Dear Editor,

Studying the Pygmalion effect and becoming well-acquainted with the advantages of utilizing it encourages medical educators to consider it a practical approach for motivating students and tapping their enormous potential to benefit their future achievements.

The Pygmalion is a psychological phenomenon involving situations where high expectations lead to improved performance and low expectations lead to worsened performance. It refers broadly to the effects of interpersonal expectations, especially when the interpersonal expectancy effects occur in an educational context (1). The term "Pygmalion effect" is used to describe the impact of positive or negative expectations on the performance of an individual or a group. The underlying idea is that when a leader, authority figure, or role model believes we can succeed in a certain area, we will work hard to meet their expectations. This also implies that we do better when more is expected of us. This mechanism is mostly subconscious; however, it can be used to intentionally enable the development of individuals, such as students, employees, or athletes. Although the Pygmalion effect was originally observed in the classroom, it also has been applied to in the fields of management, business, and sports psychology. The Pygmalion effect has both academic and practical implications. For example, a team whose manager believes in its members' abilities will outperform one whose manager believes the opposite, even if the two teams are equally skilled (2).

In an educational context, the Pygmalion effect describes how teacher expectations boost student performance through increased motivation, confidence, and self-efficacy. Harnessing this phenomenon presents a valuable opportunity to enhance medical education (3).

Studies have shown that faculty assumptions become self-fulfilling prophecies (3). However, inflated projections introduce bias (4); thus, moderation is key, as extreme assumptions become self-defeating (5). A well-trained educator is a key component of success in reaching anticipated results. Training programs should be designed and implemented to empower them to achieve ultimate expectations and to avoid unwanted results (6).

Some disadvantages, however, can be expected, such as students being misled by an educator's unrealistic predictions about them. Other students may also experience negative effects not addressed by the educator, making them feel unworthy.

Strategies to optimally utilize the Pygmalion effect in medical education include training faculty to set appropriately high expectations, framing incoming

students as capable future physicians, using standardized patients to provide encouraging feedback, assigning mentors to struggling students to nurture self-efficacy, and reserving desired opportunities (e.g., assisting in surgery) as incentives for promising students.

The application of these strategies does not have distinct lines separating it from other tasks and duties of a faculty member; it should simply be embedded in an educator's routine teaching encounters, like clinical and classroom settings and mentorship / preceptorship programs. Proper training and prior preparation will facilitate the utilization of these strategies. One study found that senior medical students performed better on exams when faculty utilized encouraging language, emphasized growth opportunities, and displayed confidence in their abilities (7).

Another approach is to present pre-tests as assessments of baseline knowledge rather than deficiencies to motivate stronger performance. Institutions can also audit for preceptor bias by analyzing trends in which students consistently under/over-perform projections (8).

Additional research on expectation mechanisms is still needed. However, thoughtfully leveraging the Pygmalion effect provides a powerful opportunity to cultivate growth mindsets and help students reach their full potential.

In this letter, we suggest some practical strategies for harnessing the Pygmalion effect in medical education based on the existing literature and our own experience. We believe that these strategies can help us create a supportive and inclusive learning environment, where our students feel valued and respected, and where they can develop the skills and attitudes that are essential for becoming competent and compassionate physicians.

First, we should identify the students who need more support and encouragement, especially those who are struggling academically or clinically, or who belong to underrepresented or marginalized groups. They should be provided with constructive and specific feedback that highlights their strengths and areas for improvement. We should also guide these students to access the resources and opportunities that can help them overcome their challenges and achieve their goals.

Second, we should set realistic but challenging goals for our students and monitor their progress and achievements. We should communicate our expectations clearly and consistently and align them with the learning objectives and outcomes of the curriculum. We should also encourage our students to set their own goals and to reflect on their learning process and outcomes. We should celebrate their successes and help them learn from their failures.

Third, we should model the behaviors and attitudes that we want our students to adopt, such as curiosity, resilience, and collaboration. We should demonstrate our passion and enthusiasm for learning and teaching, and share our challenges and achievements. We should also show respect and empathy for our students, colleagues, and patients, and foster a culture of diversity and inclusion. We should invite our students to participate in meaningful and authentic learning activities, such as research projects, clinical cases, and community service.

By following these strategies, we can use the Pygmalion effect to enhance the motivation, confidence, and self-efficacy of our students, and ultimately improve their academic and clinical performance.

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