

Title: Using positive deviance to improve student performance

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Context and setting: At our medical college in Pakistan many students have lower clinical performance ratings than would be expected from written exams. However, among the group some have good clinical skills.

Why the idea was necessary: The usual problem-solving approach would focus on reasons for low achievement among the group. Efforts to rectify problems, though, often result in ‘best-practice’ solutions put forward by experts, which are often followed by resistance to the ideas being imposed. We sought to use a novel approach, which involved partnering with the student community to drive change in study practices. The six-step Positive Deviance Conceptual Framework was used to identify and disseminate the strategies employed by the successful students.

What was done: Fifty 3rd year students (of a 5-year M.B.B.S. program) rotating through internal medicine were assessed mid-rotation with mini-CEX and 360-degree evaluations (raters included faculty, postgraduate trainees, self, peers and patients who evaluated attitudes, communication skills and team work). Forty percent (20) who performed well were invited for individual in-depth interviews and were asked how they learned clinical skills. Seven students (14%) reported unusual behaviors, some of which were: consulting multiple resources for every case, reading histories of patients with common problems clerked by others from patient charts, standing by when senior students are taking histories, turning back to basic science books to understand patient presentations, hypothesizing and eliminating explanations while studying, practicing on siblings or each other, returning to the hospital in free time, and “chasing” the teachers if they are not available at scheduled time. A faculty facilitated discussion was held with the seven students in which they decided to work in small groups with their peers to disseminate their positive deviance (PD) behavior. During the small group sessions the students practiced taking histories and examining patients together.

Group performance and modification of study behavior was assessed at the end of rotation using mini-CEX and 360-degree evaluation, in comparison to a subsequent group of students in the same year that did not work in PD peer learning groups. A focus group discussion was held with a purposeful sample of the student PD groups to explore learning experiences during the rotation.

Evaluation of results and impact: A statistically significant difference ($p \leq 0.05$) was seen for improvement in medical interviewing skills and clinical judgment on the mini-CEX exam in the PD group. The 360-degree evaluation also revealed statistically significant differences ($p < 0.0001$) for improvement along all dimensions in the PD group. The positive deviance approach therefore, significantly improved clinical skills and attitudes in the students. The students working with the PD students reflected that working with the PD students helped them understand how using simple learning techniques could enhance their performance. Influenced by the PD students, they

reported that they put in extra hours in the ward, consulted internet resources and saw all admitted patients with clinical findings.

This project helps highlight behaviors among medical students that contribute to success but may go unnoted. These can be “discovered” through a process of in-depth interview and spread further using the positive deviance approach to improve students’ group performance.

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