

Initial Use of Peer Evaluation and Self-Assessment to Measure Professionalism in Pre-Doctoral Dental Students: Part 1

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Abstract

Objective: To instill techniques of self-assessment in future professionals.

Introduction: Student professionals need to acquire tools that allow them to analyze not only themselves, but also their peers. These tools encompass self-assessment and peer-assessment. This article describes a protocol for implementing an assessment program for student doctors.

Methods: Web-based self-assessment and peer-assessment programs involving 14 groups of approximately 26 students were instituted at New York University College of Dentistry (NYUCD). Each student rates themselves and 6 other randomly selected students twice a year on a rotating basis for four years. All reviews are anonymous. Students meet as a group with their mentor, twice a year. In addition they schedule an individual meeting with their mentor as soon as they are done with their self and peer evaluation to review these assessments for content and professionalism.

Conclusion: The program in place for students to self-assess and peer-assess each other under the guidance of a mentor allows students to build the tools necessary for professional growth. Follow-up studies will include analysis of trends seen within the assessments over the course of the four-year program.

Keywords: Self-assessment, Peer-assessment, Pre-doctoral, Mentor, Likert

Objective

To effectively develop self-assessment tools in pre-doctoral dental students for professional growth.

Introduction

Self-reflection and self-assessment has become a crucial tool in building today's healthcare professional. Various studies on self-assessment have been performed with the ultimate aim of guided self-directed learning and improving overall doctor performance [1]. Academic institutions are challenged with the difficult task of figuring out how to gauge and track an individual's performance [2,3]. Previous efforts have defined general approaches to measuring professionalism, but few specific methods or protocols have been standardized [4]. As a result, the students are often left without the necessary support to objectively analyze their performance in criteria that comprise professionalism [1,3-5].

Methods

NYUCD is the largest dental school in the United States. This large student body presents a unique challenge in developing methodologies for teaching students how to critically evaluate themselves. Currently, the program in place follows first year dental students for four years where they evaluate themselves and each other on various performance standards. A faculty mentor meets with the students to help guide the process. The faculty mentor begins with the students during the first year and stays with the students throughout school. By staying with the students the mentor is better able to build meaningful relationships with their students and monitor their professional growth. The goal is for students to find themselves in a personal reflective mindset whereupon they are able to develop concrete plans to identify and strengthen weaknesses. This article describes a novel tool to measure professionalism using both peer-evaluation and self-assessment.

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The evaluation program is a web-based program where students assess themselves and each other with complete anonymity. On a random, rotating basis each student rates themselves and six other students in their group practice on performance in thirteen domains: approachability, punctuality, communication, ethics/honesty, responsibility, helpfulness, empathy, cleanliness, appearance, patients, intellectual curiosity, respectfulness, and problem solving. Each domain is scored using an eight-point Likert scale. In addition, a comment section is provided at the end of each evaluation. A mean is calculated for each domain using data compiled from the six evaluations. At the same time the individual also rates his or her own performance in each domain based on the same eight-point Likert scale. A 10-15 minute meeting is then set up with their mentor to compare the results of the student evaluations with the individual's self-assessment and to view the comments. The comments are shown to the student anonymously. This meeting occurs two times per year. As stated, the mentor remains with the students throughout dental school. If additional assistance is needed the mentor can refer the student to the Student Affairs department.

Discussion

The benefits of peer evaluation are multiple. One, they allow the individual to examine themselves in a way that is constructive. Second, outside critical assessment allows the individual to analyze aspects of their demeanor and process that they may not have noticed. In taking all of this together the act of peer and self-assessment allows the students to see how others perceive them and becomes a powerful tool, if utilized correctly, for the individual to better himself or herself.

The role of the mentor in peer assessment is critical. For one, it serves as a means to help the student put into perspective the various comments that were received. For instance, a criticism may be construed as overly harsh. In this circumstance a mentor would be able to come in and paint the criticism in a more constructive light [5,6]. This type of mentor-led peer assessment empowers the mentee with tools to improve themselves. However, it is the individual who must incorporate these criticisms and view them not as attacks upon his or her character, but rather critiques that may help him or her to become a better health care professional.

With all the benefits of peer assessment there are many barriers. The article by Anderson mentions several defined barriers with regards to the mentor, mentee, and program director. One obvious barrier is that the mentee would be offended by some of the comments put upon him or her by the assessments. It is

difficult to relay interpersonal issues which are sometimes vague, unclear, or difficult to measure [6]. One of the reasons the article gives for this is that negative feedback is hard to give. Naturally, people don't want to hear or give negative comments to other people from fear of blowback. It can sometimes be very difficult to give critical feedback to our peers. Our culture encourages positivity. The mechanisms by which students evaluate each other can be perceived as very subjective. If the individual being evaluated feels he is being attacked then the evaluation holds less weight. It is for this reason that in order to overcome these barriers the role of the peer mentor becomes even more valuable [1,3,4]. The peer mentor can put these evaluations in context for the mentee so that he or she doesn't feel attacked.

Conclusion

In peer assessment it is upon the mentor to enforce that evaluations are done in a constructive and meaningful manner. If not, then the evaluations serve little purpose in aiding the health care professional in becoming a more competent practitioner. This article describes a program involving dental students that begins in the first year where students participate in both peer and self-evaluation with a mentor who meets with each student to go over the evaluations. As it is the same mentor who meets with the students from the first year they are able to build a relationship with the mentor, which facilitates trust, confidentiality, and guidance. Follow-up studies will include longitudinal analysis of trends seen in the thirteen domains over the course of four years. Further studies in this field need to be done to validate the efficacy of peer evaluation in the pre-doctoral setting.

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