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Research Article

An Educational Intervention to Reduce Anxiety Related to Video Precepting

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Abstract

Background and Objectives: Use of videotaped or video monitoring within residency training has been demonstrated to provide meaningful and relevant feedback material across the Accreditation Council for Graduate Medical Education (ACGME) defined core competencies and reinforce assessment and treatment of patients from a bio psychosocial model [1-12]. While residency programs may vary on the format of using video monitoring/taping, the premise is to record the resident interactions with patients and provide feedback on medical interviewing skills, patient physician relationship, procedures, etc. However, results from research in the area demonstrate that some residents respond to video precepting with some degree of apprehension.

The aim of this pilot study was to discover if an educational intervention delivered at the beginning of a Family Medicine residency would reduce resident apprehension about the video precepting process.

Methods: 10 first year Family Medicine residents were given the Westside Test Anxiety Scale (WTAS) and a pretest survey, consisting of qualitative questions related to prior supervision experiences. They were then exposed to an educational program related to video precepting. Following six months of video precepting, posttest measures were given designed to capture levels of anxiety related to video precepting post intervention.

Results: The findings indicate that the educational intervention did not significantly reduce anxiety related to precepting. However, the scores of anxiety did decrease over the pretest and posttest period.

Conclusions: More research is needed to determine how to reduce anxiety in residents related to video monitoring and maximize the utility of this training tool.

Keywords: Video Precepting; Anxiety

Introduction

In order to provide feedback in medical training, observations of students and residents clinical performance is necessary. Use of videotaped or video monitoring within residency training has been demonstrated to provide meaningful and relevant feedback material across the Accreditation Council for Graduate Medical Education (ACGME) defined core competencies [1-12]. Also, video monitoring within residency training has been found to reinforce assessment and treatment of patients from a bio psychosocial model [1-12]. While residency programs may vary on the format of using video monitoring/taping, the premise is to record the resident's interaction with the patient and provide feedback on medical interviewing skills, patient physician relationship, procedures, etc. The use of interdisciplinary video precepting is one method that has been found to be beneficial in providing more comprehensive feedback to residents [1-12]. The combination of behavioral medicine specialists, who specializes in working with patients from a bio psychosocial model, and physicians can provide more comprehensive feedback to residents that may otherwise be deferred.

While there is support for the use of interdisciplinary team precepting, members of the team note some difficulties with the use of video precepting. For example, Lutton's reflective essay notes challenges such as finding appropriate feedback forms, limited time to give feedback and resident responses to the feedback [13]. The latter has been noted in other research that some residents respond to video precepting with some degree of apprehension [5]. However, there is a paucity of research quantifying this apprehension and/or addressing the potential source of this anxiety.

Therefore, the aim of this pilot study was to discover if an educational intervention delivered at the beginning of residency would reduce resident apprehension about the video precepting process. Qualitative data was collected to determine if there were similarities in resident experiences that led or contributed to the levels of anxiety or apprehension, to see if resident attitudes toward this process differed comparatively from previous anecdotal feedback and to learn more about resident experiences with behavioral medicine prior to residency.

Methods

Participants

10 first year family medicine residents at a southeastern family

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Table 1: Modified west side test anxiety scale.

5 Extremely/ Always True	4 Highly/ Usually True	3 Moderately/ Sometimes True	2 Slightly/ Seldom True	1 Not at all/ Never True
1. The closer I am to receiving feedback or an evaluation, the harder it is for me to concentrate on what I am doing.				
2. When I provide patient care, I worry that I will not remember something or perform as the evaluator will expect of me.				
3. I think that I am doing awful or that I may fail when given feedback or during an evaluation.				
4. I lose focus during checkouts, and I cannot remember material that I knew before.				
5. I finally remember the answer the attending's questions after the exam is already over.				
6. I worry so much before checkouts or during evaluations that I am too worn out to do my best.				
7. I feel out of sorts or not really myself when I am being evaluated.				
8. I find that my mind sometimes wanders when I am being evaluated.				
9. After an evaluation/feedback session, I worry about whether I did well enough.				
10. I struggle with written assignments, or avoid doing them, because I feel that whatever I do will not be good enough. I want it to be perfect.				
Scoring:				
1.0-1.9 Comfortably low anxiety 2.0-2.5 Normal anxiety 2.5-2.9 High normal anxiety 3.0-3.4 Moderately high anxiety 3.5-3.9 High test anxiety 4.0-5.0 Extremely high anxiety				
Adapted from: Westside Test Anxiety Scale © 2004 by Richard Driscoll, Ph.D.				

Table 2: Intern pretest items.

1. Describe your experiences with behavioral medicine in medical school.
2. Describe your experiences with psychiatry in medical school.
3. Did you have training in medical interviewing and the patient physician relationship in medical school? If yes, please describe.
4. Do you have concerns working with behavioral medicine in residency? Please describe why you chose yes or no.
5. Have you been videotaped in the past with clinical work? If yes, what was the experience like?
6. Have you ever been given feedback or an evaluation that was unprofessional? If so, please describe.
7. Have you ever witnessed another medical student or resident receive feedback that was embarrassing or demeaning? If yes, please describe.

medicine residency program were selected to participate in the study. No control group was utilized. This study was approved and considered exempt from the University Institutional Review Board (IRB).

Procedures

The 10 intern residents, 5 male and 5 female were given a pretest at their residency orientation that contained an adapted Westside Test Anxiety Scale (WTAS) [14] (Table 1) and a set of qualitative questions designed to obtain information related to their experiences prior to residency (Table 2).

Following the pretest, residents were exposed to an educational training program that accompanies the use of The Patient Centered Observation Form (PCOF) [15]. This program included each resident watching two standardized patient care videos and utilizing the PCOF to rate the videoed resident on establishing rapport, maintaining the patient relationship throughout the encounter, agenda setting, maintaining efficiency, gathering information, assessing the patient/family perspective, electronic medical record use, physical examination, sharing of information, behavioral change discussions, shared decision making and closure of the encounter. Residents were then engaged in discussions about their rationale for their ratings in those domains for the two observed videos. Learning objectives of this process including increasing resident knowledge regarding the skill sets and elements on which their competency would be measured during their own video precepting and identify areas for personal competency growth.

Residents were informed that they would be observed by behavioral medicine supervisors in clinic at least twice per month for three months and their patient encounters would be rated on the PCOF, there by being assessed on the same criteria they had learned themselves when watching and rating standardized patients during their orientation. There was a 6 month period of time between the residency orientation and the first video observation. Following three months of observations, residents were given the modified WTAS and a posttest with questions related to their experiences with both video monitoring and behavioral medicine (Table 3).

Measures

The WTAS is a 10 item self-report inventory designed to identify students who could benefit from an anxiety reduction program [14]. Validation of the WTAS has been conducted by looking at changes in test performance in students pre and post anxiety-reduction training and has been found to account for 20% of the changes ($r = .44$) in test performance in college students. The language of the WTAS was adapted to emphasize anxiety with in precepting settings [14]. The 10

Table 3: Intern Posttest Items.

1. Describe your experiences with behavioral medicine in residency.
2. Was the training in medical interviewing and the patient physician relationship helpful, please describe.
3. Do you have concerns working with behavioral medicine in residency? Please describe why you chose yes or no.
4. What was the experience like in being observed?
5. Have you ever been given feedback or an evaluation that was unprofessional by the behavioral medicine team? If so, please describe.
6. If you could give any feedback, positive or constructive, about the communication/interviewing curriculum, what would it be?

Table 4: Responses to qualitative questions.

Resident responses to what was/was not helpful about video monitoring		
Helpful discussing physician-PT interactions	Good educational experience, learned patient interaction & how to improve communication skills	I have struggled with this in the past and have gained a lot either from direct observation or monitoring on screen
Behavioral medicine has been very helpful in organizing clinics	It's been time-consuming working with behavioral medicine patients	Good feedback with the interviewing techniques
	Great experience, very helpful, good to use on difficult patients	Time consuming
Resident responses on what could be improved/changed		
Sometimes feedback was delayed	Would be helpful if I could receive immediately or via email that day	Lectures [on the video precepting] were repetitive or long.
One patient per day would be useful otherwise entire day is slowed by observation		

items (Table 1) were rated on a 5 point Likert Scale, with 1 being low anxiety to 5 being high anxiety. Scoring was calculated by the average of scores on the 10 items.

Results

Nine residents of the 10 sampled completed surveys at both the pre and posttest periods. The data was not coded in an effort to protect the confidentiality of participants and this led to analyzing the data using an independent-samples t-test analysis with significance at .05 levels.

A one tailed, independent-samples t-test was conducted to compare precepting anxiety scores from the pretesting period and the precepting anxiety scores following the educational intervention from the post-testing period. There was no significant difference in the mean response of pretest (M= 2.03, SD= .43) and posttest (M= 1.99, SD=.52) precepting anxiety scores; t (16) = .198, p = .423.

An independent-samples t-test was conducted to compare precepting anxiety scores in respondents who answered negatively to pretest questions 5 and 7 to those who responded affirmatively to questions 5 and 7 (Table 2). There was a significant difference in the scores for precepting anxiety for those who answered affirmatively to questions 5 and 7 at pretest (M= 2.55, SD= .07) and those who responded negatively to questions 5 and 7 (M= 1.86, SD=.36); t (7) = -2.46, p = .020.

Results of the qualitative surveys on resident attitudes toward the process and feedback related to video monitoring are summarized in Table 4. General themes included; Learning: video monitoring was helpful and Time: behavioral medicine patients were time-consuming, prompt feedback would be more helpful than delayed.

Discussion

Findings indicate that the educational intervention did not significantly reduce anxiety related to precepting. However, the scores of anxiety did decrease over the pretest and posttest period. It was of interest to find that residents who had experiences being videotaped and those who had experiences seeing other students or residents receiving embarrassing or demeaning feedback reported increased levels of anxiety. While it seems rational that one would be anxious receiving feedback in the future, given past experiences of witnessing or experiencing negative precepting feedback, preceptors may not have this information or consider a resident's past experiences while giving feedback. As such, some resident responses to feedback may be misinterpreted by supervisors as resistance, defensive, dismissive, etc. However, residents may be attempting to prevent the emotional impact of having a negative feedback experience. Residents may benefit from an intervention designed to alleviate this anxiety during the video precepting process.

The qualitative responses also provide an opportunity to improve feedback given from the interdisciplinary team. It appears that while residents found the feedback helpful, some also found the feedback to be time-consuming. There also appears to be a perspective that there are "behavioral medicine" patients as opposed to another type of patient. The challenge for the interdisciplinary team is to give feedback in a constructive, succinct manner and to somehow educate residents that all patients are "behavioral medicine" patients (See Table 4).

It is important to note the limitations of this study. One of limitations of this study is the sample size and collection of information from one residency program. In addition, the measure utilized was adapted and may not have the same reliability and validity for the measurement of anxiety. Also, without a control group it is difficult to specify which factors contributed to the decrease in resident anxiety scores. Despite these limitations, the study does bring about important questions for residency training with the use of video monitoring and precepting that demonstrate the need for more research. Specifically, how many of our residents have been impacted by receiving feedback that was not constructive and how might that influence their behavior in receiving feedback as well as what they are reporting back to their attending supervisors.

The future directions of this research are abundant as it relates to

resident feedback and how video monitoring/taped precepting may be utilized and adapted in residency programs. Specifically, more data is needed to determine if residents have previous experiences with feedback that influence perceptions of video monitored precepting. Moreover, a control group and larger sample size could elucidate the factors which contribute to decreased anxiety levels regarding video precepting in residents (e.g. intervention, time in residency).

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