

Research Article

Patients' Knowledge and Attitudes of Medical Students and Residents

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Abstract

Background: Patients are receptive to medical student participation in the ambulatory setting. Patient satisfaction with medical student involvement has been confirmed even in rural settings where medical students are less well known. However, evidence for patient understanding of medical education is scarce. No studies have been done to see whether or not the two subjects have any relation to each other. This study sought to determine if the more understanding of medical education a patient has, the more comfortable they are being seen by any doctor-in-training.

Methods: A survey was designed to assess patient understanding of medical education and attitudes towards medical students and residents. The survey consisted of ten statements assessing patient attitudes and four True/False questions testing patient knowledge about medical education.

Results: Some 198 patients completed the survey with 76 (39%) from the rural clinic and 122 (61%) from both urban clinics. For knowledge about medical education, participants from the rural clinic scored significantly lower ($p < .02$) lower than urban counter parts (71% correct on average versus 79%). Those who agree that medical students and residents benefit from experience with a doctor scored higher (79%) than those who disagreed (64%) or were neutral (58%, $p < .001$).

Conclusions: Patients at a university clinic are more familiar with the differences in medical students and residents by mass exposure to each group. The more a patient understands about the medical educational process, the more likely they are to have a positive experience with medical students in the ambulatory settings.

INTRODUCTION

It is well known that patients are receptive to medical student participation in their care in the ambulatory setting [1]. Patient satisfaction with medical student involvement has been confirmed even in rural settings where medical students are less well known [2]. The evidence for patient understanding of medical education about medical students and residents is scarce. No studies have been done to determine whether or not the two subjects have any relation to one another. The first purpose of this study was to gain perspective on what patients understand about medical education, specifically the similarities and differences between medical students and residents. The second purpose of this study was to inquire about the perceived quality of care patients receive when medical students and residents are involved. There are two hypotheses in this study. First, patients do not understand the differences of healthcare provider titles in medical education and two; patient satisfaction with quality of care in an academic setting is more than adequate.

Our hypothesis was that the more understanding of medical education a patient has, the more comfortable they are being seen by doctors-in-training.

There has been very little research examining how much of the medical education process that patients understand. In a study by King, 29% of patients did not know what a medical student was even though they had been interviewed and examined by one [3]. With so many white coats involved with care in an academic institution, ignorance of the different steps to becoming a doctor can make a clinic visit very confusing and stressful for a patient. The average patient probably does not know the difference between a medical student and a resident, or a resident from a staff physician.

Multiple studies have shown that patients can have a positive experience with medical students. Patient satisfaction at a family medicine clinic was higher when medical students were involved with their care [4]. Patients in teaching hospitals gave an overall

higher percentage of satisfactory ratings compared to patients in non-teaching hospitals [5]. In a study by Mora-Pinzon et al., [6] 73% of patients felt that medical students enhanced their overall care. In that study, 8% of patients refused to see medical students.

MATERIALS AND METHODS

This research was approved by the Institutional Review Board of The University of Alabama. The survey was designed to assess patient understanding of medical education and attitudes towards medical students and residents. The survey consisted of ten statements assessing patient attitudes and four True/False questions testing patient knowledge about medical education. The survey was designed such that it could be completed in 5 minutes. These questions are found in Tables 1 and 2. They do not involve any protected health or personal information. This survey is anonymous and has minimal risk. There is no compensation for completing the study. The surveys were distributed to a family medicine and OB/GYN rural clinic in Demopolis, Alabama and two urban clinics—family medicine and OB/GYN at the University Medical Center in Tuscaloosa, Alabama. The surveys were available for completion at the front desk of each office when patients checked in for those who wanted to participate. No training of personnel was necessary. After 4 weeks, all completed surveys were collected and subsequently analyzed statistically.

RESULTS

Some 198 patients completed the survey with 76 (39%) from the rural clinic and 122 (61%) from both urban clinics. Results from the survey are found in Tables 1 and 2. The demographic information from the respondents is found in Table 3. Female patients comprised 94% of the respondents. 62% of the patients completing the survey were African American and 35% Caucasian. Some 34% of patients had completed high school or had a GED and 37% had received some college or trade school education.

Table 1: Questionnaire statements and corresponding participant percentages for each.

		Agree	Neutral	Disagree
1	I Know the difference between a medical student and resident.	83.8%	7.6%	8.6%
2	I understand the role of each medical person involved in my care.	87.4%	2.5%	10.1%
3	I prefer to NOT be seen by a medical student.	30.8%	30.8%	38.4%
4	I prefer to NOT be seen by a resident.	20.4%	30.6%	49.0%
5	I believe that medical students and residents benefit from experience with the doctor.	85.4%	5.5%	9.0%
6	Having a medical student involved improves my doctor's ability to care for me.	44.5%	34.0%	21.5%
7	Having a medical student involved decreases my time with the doctor.	25.6%	33.7%	40.7%
8	Having a medical student involved improves the quality of care receive.	42.7%	37.2%	20.1%
9	I am seen by too many people in the exam room/hospital room.	15.6%	26.6%	57.8%
10	I am better taken care of when only my physician is involved.	35.2%	27.1%	37.7%

Table 2: True/false portion of questionnaire with participant percentages for each.

		True	False
1	Medical students need physician approval when making decisions about patients.	96%	4%
2	Medical students have completed medical school.	25%	75%
3	Residents have completed medical school.	75%	25%
4	Residents have license to practice medicine	61%	39%
5	Medical students have more training than residents.	22%	78%

Table 3: Demographics of survey participants.

1	Age	18-75
2	Gender	6% Male 94% Female
3	Race	62% African American 35% Caucasian 4% Other
4	Highest Education Level	9% < 12 th grade 34% High School Graduate or GED 38% Some college or trade School 19% College degree or higher

For knowledge about medical education, participants from the rural clinic scored significantly lower ($p < .02$) lower than urban counterparts (71% correct on average versus 79%). African Americans scored significantly lower (72% correct versus 82% correct, $p < .01$) than Caucasians. Those patients who disagree that they are better cared for by only their physician scored significantly higher (82% correct, $p < .03$) than those who were neutral (72%) or agreed (74%). Those who agree that medical students and residents benefit from experience with a doctor scored higher (79%) than those who disagreed (64%) or were neutral (58%, $p < .001$).

CONCLUSIONS

Communication is vital to improving patient satisfaction and overall care in academic settings. As would be expected, patients at a university clinic are more familiar with the differences in medical students and residents by mass exposure to each group. Most established patients at University Medical Center expect to be seen by a medical student or resident in conjunction with an attending physician. Not coincidentally, patients at the university clinics are more comfortable being seen by medical students and residents. In rural settings, thorough introductions by medical students are necessary to not only give the patient an idea of who they are, but to make them more comfortable having a doctor-in-training involved in their care. The more a patient understands about the medical educational process, the more likely they are to have a positive experience with medical students in the ambulatory settings. As medical schools look to expand into community and rural areas such as longitudinal, integrated community clerkships, rural tracks and rotations, more research is needed to identify a baseline of patient perception and understanding of medical students and residents. One limitation of this study is answer bias. Since the survey was optional, only those that wanted to participate completed it. Therefore, the socio-demographic characteristics of the respondents may vary

from the actual characteristics of the whole clinic populations used in the study.

REFERENCES

1. Simons R, Imboden E, Mattel J: Patient Attitudes towards Medical Student Participation in a General Internal Medicine Clinic. *Journal of General Internal Medicine*. 1995; 10: 251-254.
2. Law M, Hamilton M, Bridge E, Brown A, Greenway M, Stobbe K. The effect of clinical teaching on patient satisfaction in rural and community settings. *Can J Rural Med*. 2014; 19: 57-62.
3. King D, Benbow SJ, Elizabeth J, Lye M. Attitudes of elderly patients to medical students. *Med Educ*. 1992; 26: 360-363.
4. Prislun MD, Morrison E, Giglio M, Truong P, Radecki S. Patients' perceptions of medical students in a longitudinal family medicine clerkship. *Fam Med*. 2001; 33: 187-191.
5. Jha AK, Orav EJ, Zheng J, Epstein AM. Patients' perception of hospital care in the United States. *N Engl J Med*. 2008; 359: 1921-1931.
6. Mora-Pinzon M, Lal A, Edquist S, Francescatti A, Hughes T, Hayden D, et al. What do patients think of medical students during their hospitalization? One institution's experience. *Am Surg*. 2013; 79: 1235-1237.

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