

Project to decrease medical student refusal in the Obstetric and Gynecology Clinic at the University of Iowa

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Keywords: Medical student, medical education, obstetrics, gynecology, clerkship, refusal, disallow, patient interaction, quality improvement

Abstract

Purpose: To describe the frequency at which students are refused from patient care, and to evaluate the impact of interventions designed to reduce medical student refusal.

Background: Medical student refusal from patient care is perceived to be a common problem during the Ob-Gyn clerkship at the University of Iowa. Review of the literature shows that medical student refusal is common in a variety of clerkships¹⁻⁴. Few studies have evaluated interventions to reduce the rate of refusal.

Methods: Beginning in 2016, surveys measuring medical students' perception of refusal were administered upon completion of the Ob-Gyn clerkship. Interventions to reduce refusal of medical student participation were implemented and/or modified with each subsequent clerkship block starting in 2017.

Results: Over the 2017 calendar year, 86% (85% among females and 88% among males) of students reported being refused from patient interaction in any clerkship because they are a medical student, 88% reported being refused in their Ob-Gyn clerkship because they are a medical student, and 85% percent of male students reported being refused in their Ob-Gyn

clerkship because of their gender. The data show no clear correlations with refusal and gender nor with the interventions put in place. Multiple qualitative responses describe patient discomfort with the presence of male students.

Discussion: The data suggest that exclusion from patient care in the Ob-Gyn clerkship occurs for the majority of medical students queried. Further, gender based exclusion may be a related problem. So far, the data have not shown a clear improvement following interventions. Possible explanations are explored and future interventions are discussed.

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Purpose

The purpose of this quality improvement (QI) project is to describe the frequency at which students are refused from patient care, and to evaluate the impact of interventions designed to reduce medical student refusal.

Please cite this paper as: Bremer KC, Shaffer SA, Fisher SJ. Project to decrease medical student refusal in the Obstetric and Gynecology Clinic at the University of Iowa. *Proc Obstet Gynecol.* 2018;8(3):Article 12 [12 p.]. Available from: <http://ir.uiowa.edu/pog/>. Free full text article.

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Financial Disclosure: The authors report no conflict of interest.

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Background

At the University of Iowa Carver College of Medicine, a common concern among students and staff during the required Obstetrics and Gynecology (Ob-Gyn) clerkship is the frequency at which medical students are refused by patients from participation in patient care.

Review of the literature shows that medical student refusal is an issue that has been observed in Ob-Gyn clerkships at various institutions.¹⁻³ It has also been observed on clerkships within other specialties.⁴ Other studies have shown that medical student participation is reduced in relation to “intimate” examinations such as breast examinations⁵ and rectal examinations.⁶

In 2000, a study at the University of California San Francisco interviewed patients regarding their reasons for refusing students. The most common reasons cited by patients were concerns regarding patient privacy, discomfort with the student performing the physical examination, gender of the medical student, and the desire for the highest standard of care.⁷

At the University of Iowa male students on their Ob-Gyn clerkship in particular feel they are disproportionately refused due to the “personal” nature of many patient presentations and the body areas that may require examination. This is based on unpublished needs assessment surveys performed during the latter half of 2016. Numerous studies have shown that male students are more likely to be refused than female students.^{3,7-12}

Though many studies have evaluated the rate of medical student refusal and reasons for refusal, few studies have been published regarding interventions to decrease rates of medical student refusal.¹³ The frequency of refusal among students and reasons for refusal had not previously been investigated at the University of Iowa. The goal of this QI project was to measure the frequency of medical student refusal in the Ob-Gyn clinic at the University of Iowa and decrease the rate of refusal through stepwise interventions.

Methods

In the fall of 2016, a needs assessment was performed via anonymous survey to evaluate medical students’ perception of refusal at the completion of the Ob-Gyn clerkship. Throughout 2017, interventions to reduce medical student refusal were implemented or modified with each subsequent required clerkship rotation. Anonymous surveys continued to be collected at the end of each block with its associated intervention to evaluate for any measurable change in student refusal.

Needs Assessment

Beginning in the fall of 2016, a needs assessment was completed in which anonymous surveys were sent out to medical students in the final week of their required Ob-Gyn rotation, or “block,” which is 6 weeks in length at the University of Iowa. Students were asked if they had been refused from patient care in the Ob-Gyn clinic and if they thought it was because they were a medical student or because of their

gender. The survey also inquired if they had experienced refusal in other clerkships. It then asked them to write about their experiences with refusal, and what interventions they thought would help to decrease the rate of refusal.

Intervention Development and Implementation

Starting in 2017, a new intervention was undertaken with each clerkship block. The first intervention in 2017 was the formation of a committee, which consisted of 6 medical students, an Ob-Gyn resident, a medical assistant and registered nurse from the clinic, the Ob-Gyn clerkship coordinator, and an Ob-Gyn attending physician. Data were not collected for this block.

In the second block, a meeting was arranged with nurses and medical assistants who work in the clinic to raise awareness for the project and the issue of medical student refusal. This also allowed clinical personnel to comment regarding which interventions may best decrease medical student refusal.

For the third block the team designed a basic sign introducing the idea of a “care team”, which was displayed in patient exam rooms to elicit reactions of clinical staff, patients, and students. Feedback was requested of clinical staff.

An updated sign was placed in all Ob-Gyn clinic rooms in the fourth block. The team worked with an institutional marketing team to design a sign incorporating feedback from clinic staff and adhering to the university's marketing standard. At the start of the

fifth block the sign was placed in all Ob-Gyn clinic rooms at an off-campus ambulatory care center where many medical students rotate. An effort was made to put the signs on the wall opposite patients' chairs with the intention that patients would read the sign while waiting to see their care teams.

Block six, the team designed a card for the marketing rack in the waiting room as well as a large standing banner, again with the help of the marketing team. The team raised concerns that the vast majority of patients weren't looking at the handouts, as most patients walk right by the marketing rack.

Thus, in the seventh block the marketing rack handouts were laminated and placed in every clinic room at University of Iowa and at the off-campus ambulatory clinic. These were positioned on the desk next to where the patients sit in the exam room so patients could read the information while waiting to see their care team.

The team then recognized that patients may not flip over this two-sided handout to read both sides and that the cards may be discarded or moved to a sub-optimal location between patients. Thus, the team made the handouts one sided and secured them to the desk next to where the patients sit. The clinic sign and handout are shown in the supplemental materials.

Evaluating the Impact

The team continued to anonymously survey students at the end of each of

their 6 week Ob-Gyn clerkship to examine if the interventions were having an effect.

The data have a quantitative component and a qualitative “free response” component. The data from the needs assessment and the 2017 surveys were aggregated at the conclusion of the year to assess if any meaningful changes could be observed following the interventions. Due to the small numbers, the data were broken into three groups: pilot (blocks 6-8 of 2016), early intervention (blocks 2-4 of 2017), and late intervention (blocks 5-7 of 2017).

Regarding the qualitative data, the survey wording was changed in 2017, which caused the responses to differ between the pilot blocks and the intervention blocks. This prevented us from being able to properly compare the responses between these blocks.

The nature of this project was quality improvement, so rigid statistics were never planned and statistical significance cannot be claimed for any of the data. In addition, numbers of responses were too small for any appreciable statistical analysis.

Results 1 (Quantitative) - Disallowed on any clerkship because you are a medical student?

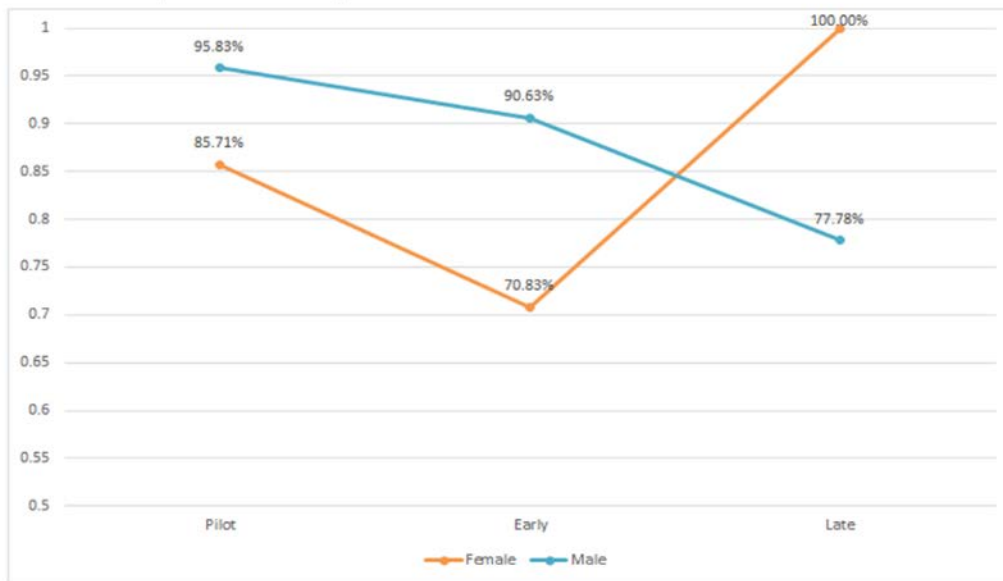


Figure 1

Results

Quantitative Data

For the quantitative data, the responses to 3 questions were evaluated: Have you ever been disallowed on any clerkship because you are a medical student? Have you ever been disallowed on the Ob-Gyn clerkship because you are a medical student? Have you ever been disallowed on the Ob-Gyn clerkship because of your gender?

During 2017, 86% (85% among females and 88% among males) of students reported being refused from patient interaction in any clerkship because they are a medical student, 88% reported being refused in their Ob-Gyn clerkship because they are a medical

student, and 85% percent of male students reported being refused in their Ob-Gyn clerkship because of their gender.

Responses to the first question (Figure 1), Have you ever been disallowed on any clerkship because you are a medical student?, were separated by gender. Among males, 23/24 (96%) reported being denied on any clerkship because they are a medical student in the needs assessment, 29/32 (91%) in the early intervention group, and 21/27 (78%) in the late intervention group. Among females, 18/21 (86%) reported being denied on any clerkship because they are a medical student during the needs assessment, 17/24 (71%) in the early intervention, and 20/20 (100%) in the late intervention group.

Results 2 (Quantitative) - Disallowed on Ob-Gyn because you are a medical student?

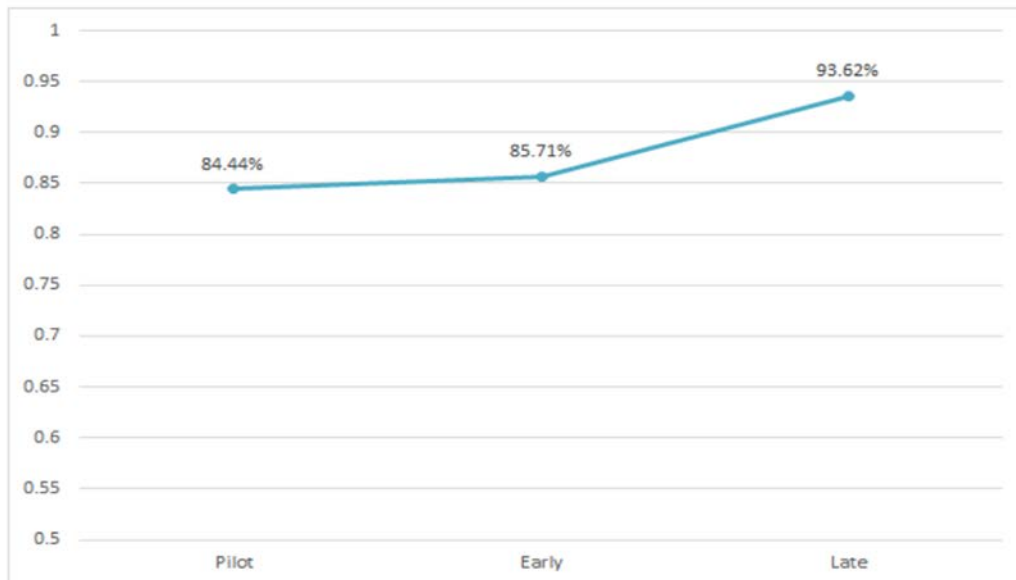


Figure 2

The second quantitative response analyzed, Have you ever been disallowed on the Ob-Gyn clerkship because you are a medical student?, is shown in Figure 2. Among males and females, 38/45 (84%) reported being disallowed on Ob-Gyn because they are a medical student in the needs assessment, 48/56 (86%) in the early intervention group, and 44/47 (94%) in the late intervention group. Overall, there was a reported increase in refusal after the interventions were put in place, which was not what the team had anticipated

The second quantitative response analyzed, Have you ever been disallowed on the Ob-Gyn clerkship because you are a medical student?, is shown in Figure 2. Among males and females, 38/45 (84%) reported being disallowed on Ob-Gyn because they are a medical student in the needs assessment, 48/56 (86%) in the early intervention group, and 44/47 (94%) in the late intervention group. Overall, there was a reported increase in refusal after the interventions were put in place, which was not what the team had anticipated.

Results 3 (Quantitative) - Disallowed on Ob-Gyn because of your gender?

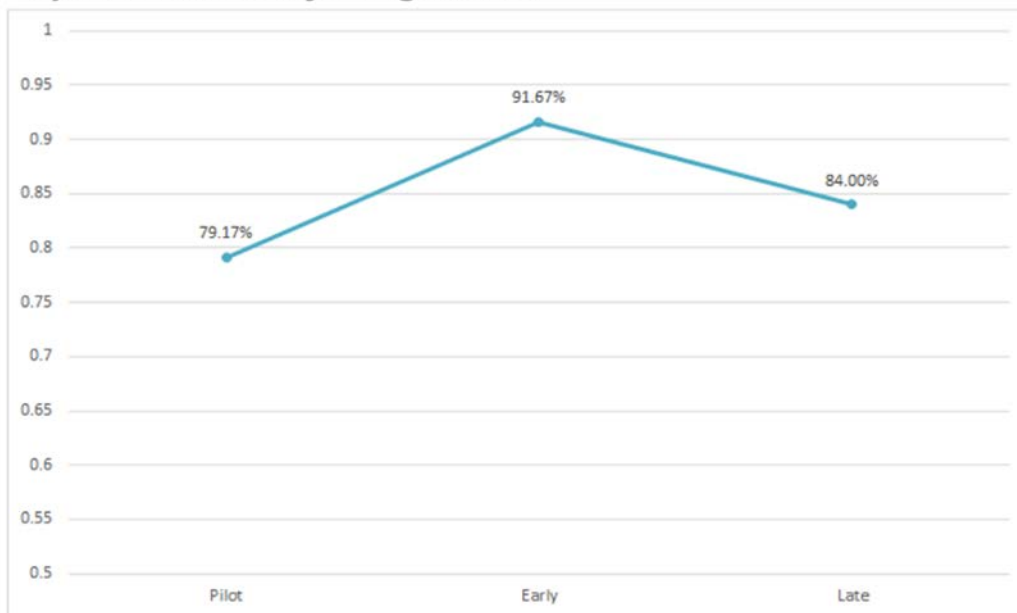


Figure 3

The final quantitative response analyzed, Have you ever been disallowed on the Ob-Gyn clerkship because of your gender?, is shown in Figure 3. These results are for males

only, as no females reported being disallowed due to their gender. Among these males, 19/24 (79%) reported being disallowed on Ob-Gyn because of their gender in the needs assessment,

22/24 (92%) in the early intervention group, and 21/25 (84%) in the late intervention group. In all three groups, 10 males indicated “unknown” or left this question blank, 8 in the early intervention group and 2 in the late intervention group. These were not included in the numbers shown above.

Qualitative Data

The qualitative data were also divided into the needs assessment, early intervention group, and late intervention group. There were 117 responses in the pilot group (2016 blocks 6-8). Of these, 53% of responders commented on the importance of explaining to patients the role of the medical student and their place in the care team, and 9.4% commented on the function or process

of the academic medical center, such as the progression from student to resident to attending physician, or the importance and opportunity to be involved in educating the next generation of physicians.

There were 57 responders in the early intervention block (2017 blocks 2-4). Of these, 37% commented on the refusal of male medical student involvement, 11% specifically mentioned being excluded from the exam due to being a male, and 11% commented that the patient being an employee/student at the university and/or medical school was prohibitive. Additionally, 8.8% noted that “sensitive” issues prevented student involvement and 7% felt there was confusion as to their role as a medical student which prevented patient interaction.

Notable Quotations

"I was asked not to go into an appointment where the provider had more sensitive issues to discuss with a patient."

"There was one specific instance in which a patient in clinic saw me and changed their mind about being seen by a medical student because I was a male."

"Many patients do not seem to realize that this is an additional interaction and that they of course will still see the doctor."

"Whenever most nurses would ask patients if it were ok for a student to do an exam, they specifically mentioned that I was a male...whereas they would not mention gender with female medical students."

Figure 4

There were 46 responses in the late intervention block (2017 blocks 5-7). Of these, 20% commented on the refusal of male medical student involvement, 11% noted that the patient being an employee/student at the university and/or medical school was prohibitive, and 11% noted that exclusion seemed to be provider dependent. Notable quotations are shown in Figure 4.

Discussion

Research has been done to characterize the frequency of medical student refusal in the Ob-Gyn clinic, especially among male students. However, there have not been many publications discussing interventions to reduce medical student refusal. Quality improvement is an ideal model for tackling this issue as changes can be made throughout the process as new data are collected. This allows for teams to consider which interventions have an effect, which do not, and to adjust interventions accordingly.

The quantitative data show that exclusion from patient care in the Ob-Gyn clerkship occurs for the majority of medical students queried. What is not clear in regards to the data presented here is whether the interventions utilized in this study help, hurt, or do not have an impact in terms of medical student refusal. If any trend does indeed exist, it seems that the interventions are correlated with greater medical student refusal, not less as was predicted. Medical student refusal is a multidimensional problem so direct effects should not be assumed.

The team has a few theories regarding why more students may have reported

being refused according to the quantitative data after the interventions were put in place. First, it is possible that bringing attention to the problem may have caused students to be more likely to make a mental note of when they were refused and therefore they were more likely to report refusal, whether or not the actual rate has changed. It is also possible that putting patient education materials around the clinics has given patients more time to think about whether or not they want a medical student involved in their care before being asked, leading to more patients coming to the conclusion that they don't. In the past patients had only a moment to decide, and in Iowa - where people take pride in their amiability and agreeable nature - the default answer may have typically been "yes".

The qualitative data show that gender-based exclusion may be a related problem, but there was no substantial evidence of this in our quantitative data. Future data collection and analysis will continue to explore this possibility. The qualitative data suggested that patient education could be useful, as many patients seemed confused regarding medical student's role. However, the primary goal of the interventions up this point has been patient education through marketing materials, but this does not seem to have led to improvement according to our quantitative data.

Numerous students reported being refused when "sensitive" issues were being discussed. Students will eventually be responsible for independent patient care, delivering bad news, and leading difficult

conversations. One way, purportedly the best way, to learn these skills is modeling experienced physicians. If students are not able to participate in patient care, through observation and/or direct participation, their professional identity formation is hindered. Professional identity formation is a multifactorial process unique to every individual that utilizes personal attributes, beliefs, values, motives, and experiences to develop a professional self-concept.^{14,15} A large part of this development comes from observation of other healthcare providers, observing how they communicate with and interact with patients, the medical and moral decisions they make on a daily basis, etc. Another large component comes from students' own participation and practice. Therefore reducing medical student refusal should, by extension, benefit professional identity formation.

Few studies have been published previously regarding interventions to decrease rates of medical student refusal.¹³ Though this study was not able to identify any particular intervention with a demonstrable reduction in medical student refusal, it has provided valuable information for the continuation of this quality improvement project. It may also serve as a stepping stone for other institutions looking to reduce medical student refusal through interventions of their own.

Previous research has described the frequency of medical student refusal.¹⁻³ This project has also demonstrated a significant rate of refusal among medical

students, though this survey asked about refusal over the entire clerkship rather than the frequency among individual clinical encounters. The quantitative and qualitative component of this project demonstrated that males perceive a higher rate of gender-related refusal than females on the OB/Gyn clerkship. This is consistent with the findings of numerous other studies.^{3,7-12}

The reasons for medical student refusal previously described by patients at UCSF included concerns regarding patient privacy, discomfort with the student performing the physical examination, gender of the medical student, and the desire for the highest standard of care.⁷ University of Iowa students described exclusion based on student gender, the patient being affiliated with the university, "sensitive" issues being discussed, confusion regarding their role as a medical student, and provider-dependent exclusion.

Limitations

This project was limited by its retrospective nature which is susceptible to recall bias. It relies on students being able to accurately recall whether or not they were refused, though it may have occurred weeks in the past. Also, this data does not demonstrate the frequency for individual students who reported refusal. For example, it is possible that the average incidence of refusal was higher for the males versus the female students queried, but this data would not differentiate that.

This project was limited due to the

small numbers within the data. This made it possible for a few responses to make a large numerical difference when analyzing data, meaning that some of the difference recorded from block to block and between genders could be attributed to random variation rather than the interventions.

The survey wording for the qualitative questions was changed between the needs assessment in 2016 and the first intervention in 2017. This may have complicated consideration of the data, as the alteration to the question wording made it difficult to later compare the needs assessment to the data following interventions.

Future Interventions

The qualitative data have been instrumental in providing the team with ideas for future interventions. The next step, which the team is currently working on, is scripting by medical assistants and nurses. The goal of this intervention is to construct a natural-sounding and effective script with input and feedback from clinic staff who will be using the script in clinic.

Other plans for future interventions include education and/or scripting for referring physicians so the patients they refer know what to expect at an academic medical center. In addition, ongoing patient education using screensavers on computers in patient rooms, and information on patient 'after visit summaries', online patient portals and in appointment notifications has been discussed.

The team will continue to collect data from medical student surveys after each intervention is put in place, and will consider other data collection with patients, referring physicians, and clinic staff. Regarding long-term goals, if one or more interventions prove to be effective in the Ob-Gyn clinics, there is interest in expanding the project to clerkships in other specialties at the University of Iowa.

We would like to thank Colleen Stockdale, MD, Sally Fisher, Mackenzie Thayer, MD, Emily Boevers, MD, Corbin Weaver, MD, Katee Verhoef, MD, Noelle Waldschmidt, MD, Vincent Wagner, MD, Jann Asher, Sarah Pierce, and Sue Votroubek for their help with this project.

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