



The Experience of Non-Traditional Medical Students in the Clinical Setting

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Abstract

Purpose: To understand the experience of mature-aged medical students on clinical rotations.

Background/Theoretical Framework: Although the mean age of first year medical students is 24, an increasing number of “mature-aged” students, defined as over age 30, are entering medical school. Most studies of mature-aged medical students have examined academic performance using quantitative research design [1, 2]. Few studies have employed qualitative methodology to determine the experience of mature-aged medical students, especially in the clinical setting.

Methods: A recruitment e-mail was sent to all medical students enrolled in clinical rotations; first responders were interviewed until saturation in emerging themes was achieved. Interviews were conducted and recorded in a private office setting, then transcribed into a Word document. Five mature-aged students and four traditional students were interviewed. Using methodology for qualitative research described by Mustakas (1994), the investigators individually coded the transcripts to identify emerging themes [3]. Coded themes underwent peer review, with triangulation of data collection, to determine main themes.

Results: Three main themes emerged from our study. First, abundant life experience influences students’ perception of their role on clinical rotations. A mature student explained, “...having kids... being married and divorced... helps in connecting with patients.” Previous work experience shapes expectations as a physician-in-training. While traditional students tend to be “intimidated,” mature students desire to “take the initiative.” Age plays a role in the students’ ability to relate to senior team members, as well as medical student colleagues. Traditional students note that mature students are “more realistic” due to their “life experience in the workplace.”

Conclusion: Mature-aged students draw upon previous life experience, which shapes role expectations, as well as medical team dynamics. These differences may have implications in training the growing number of mature-aged medical students. A larger scale qualitative study including multiple medical school sites is being developed.

REFERENCES

[1] Cariaga-Lo L.D., Enarson C.E., Crandall S.J., Zaccaro D.J. and Richards B.F. (1997) Cognitive and noncognitive predictors of academic difficulty and attrition. *Academic Medicine*, 72, S69–S71.

[2] Harth S.C., Biggs S.G. and Thong Y.H. (1990). Mature-age entrants to medical school: a controlled study of sociodemographic characteristics, career choice and job satisfaction, *Medical Education*, 24, 488-498.

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Recruitment of Participants

Dear Student,

You have been identified as a potential participant in a pilot research study I am conducting for a course I am taking as part of the Master Teacher Leadership Development Program. The study seeks to understand the experience of being on a clinical rotation for a mature-aged third year medical student.

You have been asked to participate in this study because you are a third-year medical student, currently participating in clinical rotations, who was over the age of 30 at the onset of medical school.

Your participation will require 90 minutes of your time in a personal, confidential interview with me. The interview will take place in a mutually convenient private location and tape recorded. The tape will be transcribed, but will identify you only by participant number. No one who works in your department (area, etc) will know if you have chosen to participate.

I hope you will all take this opportunity to reflect on the experience of being a mature-aged medical student on clinical rotations. Please let me know by Friday January 18th if you can participate. The interview needs to be completed by January 25th.

Thank you

Interviews

Interview Schedule

1. Please tell me what led you to Medicine
2. How are you finding the experience of becoming a student again as an adult?
3. What was it like for you when you started working in the clinical setting?
4. What life experiences have you had that you think had an impact on your interaction in the hospital?
 - a. Can you give me an example of a particular life experience and how it has impacted your interaction in the hospital?
 - b. Out of all of the experiences you have had, why did you select that particular interaction?
5. Please tell me about a circumstance where you felt very comfortable in the clinical setting
6. Describe circumstances where you felt uncomfortable in the clinical setting
7. I am curious about your experience in the different specialty tracks. Do some tracks stand out more than others for you and why?
8. How are you going to determine what field of medicine you want to go into?
9. As you reflect back on the hour and a half we have spent together, what are the things you want to make sure I capture when I prepare the findings?
10. Do you have any questions for me?

Data Analysis

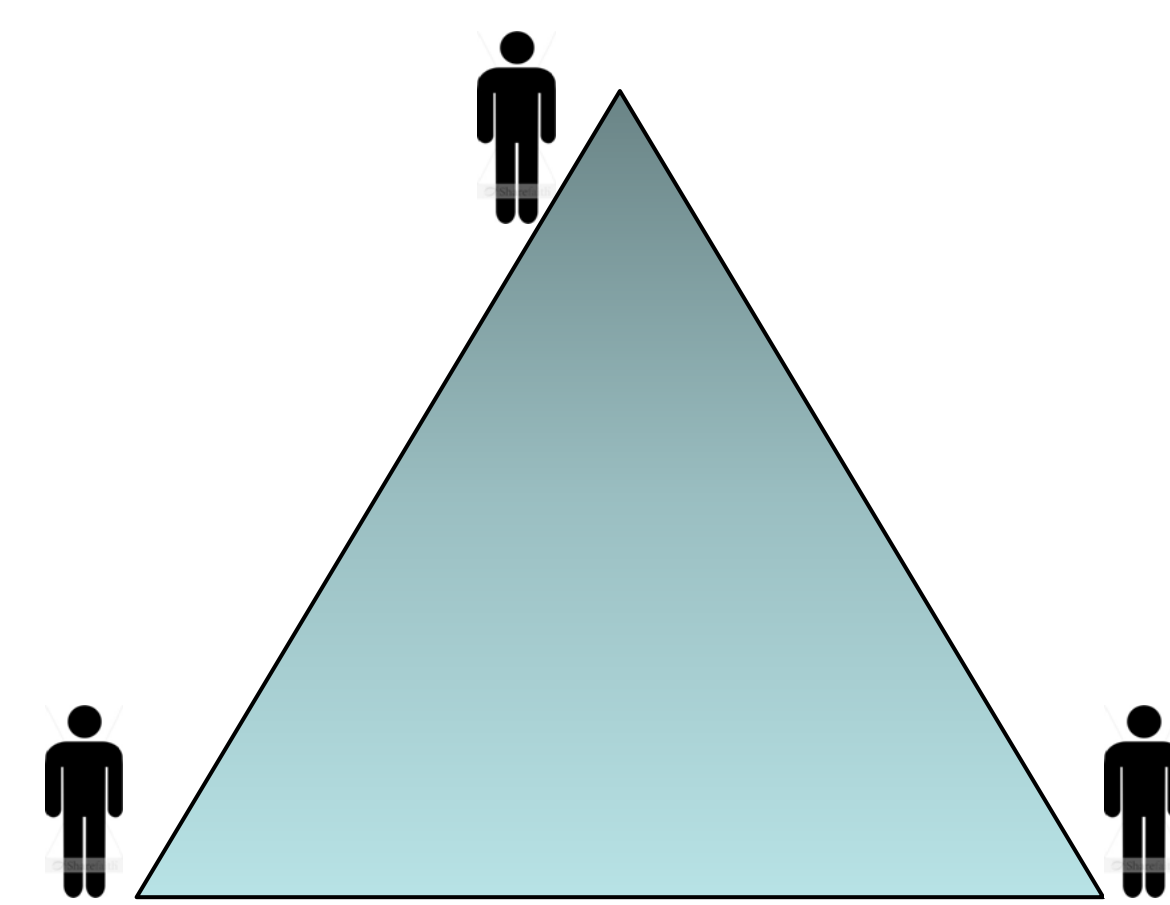


Figure 3: Multiple strategies were utilized to ensure trustworthiness of findings:

- Epoche took form of personal reflection prior to interviewing the participants
- The interviews were read by three researchers and coded individually following methodology described by Moustakas (1994)
- First level textual analysis was performed on each interview transcript (one researcher grouped the descriptions into 9 main categories)
- Structural descriptions of “how” and “what” were then completed for each transcript
- The three researchers then met to discuss the categories/descriptions
- The categories were then analyzed and clustered into three main emergent themes
- For conformation of our analysis, the entire data set was imported into the qualitative analysis software package, “Nvivo”

Acknowledgements: Thank you :

We have to thank the students who contributed to this work by sharing the life experience they lived and making this study possible. I also want to thank the Office of Student Opportunities who funded my Summer scholarship for this project.

Results

Theme 1: Abundant life experience influences the student's perspective of their role as a medical student on clinical rotations		Past experiences and background
Sub-Theme	Example quotes	
Reason to pursue medicine		
Traditional	<i>I think what led me to medicine was being able to help people in a very personal way because there are lots of ways to help people but I think, it seems to me like medicine is a very like intimate way to help somebody very quickly.</i>	<i>I did not have any life-defining moments or anything like that</i>
Mature-aged	<i>And then when my sister passed away early on I started to see medicine as a way to help people, a way to help families.</i>	<i>Definitely having kids, going through pregnancy, being married and divorced. That actually also just helps in connecting with patients (5).</i>
Mature-aged	<i>I was not feeling fulfilled with work anymore, with my career... [I] volunteered at the hospital, in the ER, talked to all my doctor friends... the more I got into it, the more I realized that it was the perfect fit for me.</i>	<i>When I am in the hospital with the patient I am always thinking about maximizing the patient's experience because I have been a patient. (8)</i>

- When discussing their role as a medical student, mature-aged students readily cited past experience, drawing upon personal life events, illness, and family.
- Considering the decision to enter the field of medicine, mature-aged medical students were more likely to express dissatisfaction with a previous career and consultation with a physician friend or mentor, whereas younger students cited cultural or family influences in their decision to pursue medicine.
- In general, older students had higher expectations, but also a more realistic view of their role in medical education.

Theme 2: Previous work experience shapes expectations of the role as a physician in training on clinical rotations		Learning style
Sub-Theme	Example quotes	
Transition into the clinical years		
Traditional	<i>...having to make really quick decisions is not something I am used to doing... (1)</i>	<i>I felt comfortable in the clinical setting more times than not... that has to do with having good mentors that have prepared me for what's coming and also kind of doing my homework and studying and making sure I felt comfortable partially out of fear (4)</i>
Mature-aged	<i>Relating it back to the classroom when I was teaching... if something goes wrong in the classroom, I need to respond pretty quickly... you are thinking ahead of what actually could happen and I think it's an incredible skill you should have as a third year [medical student], predicting what you could do to help the team and not just sitting there waiting for someone to tell you what to do. (3)</i>	<i>I learn much more on my feet, I learn much more by doing... getting autonomy when you get a chance to actually go in and you are the one who sees the patient (5).</i>

- While traditional medical students express concern over quick decision-making in the clinical environment, mature-aged students look forward to taking initiative in medical situations.
- Students with prior work experience preferred “learning by doing,” jumping into patient interactions without hesitation and viewing every encounter as a learning experience, without regard to perfect performance.

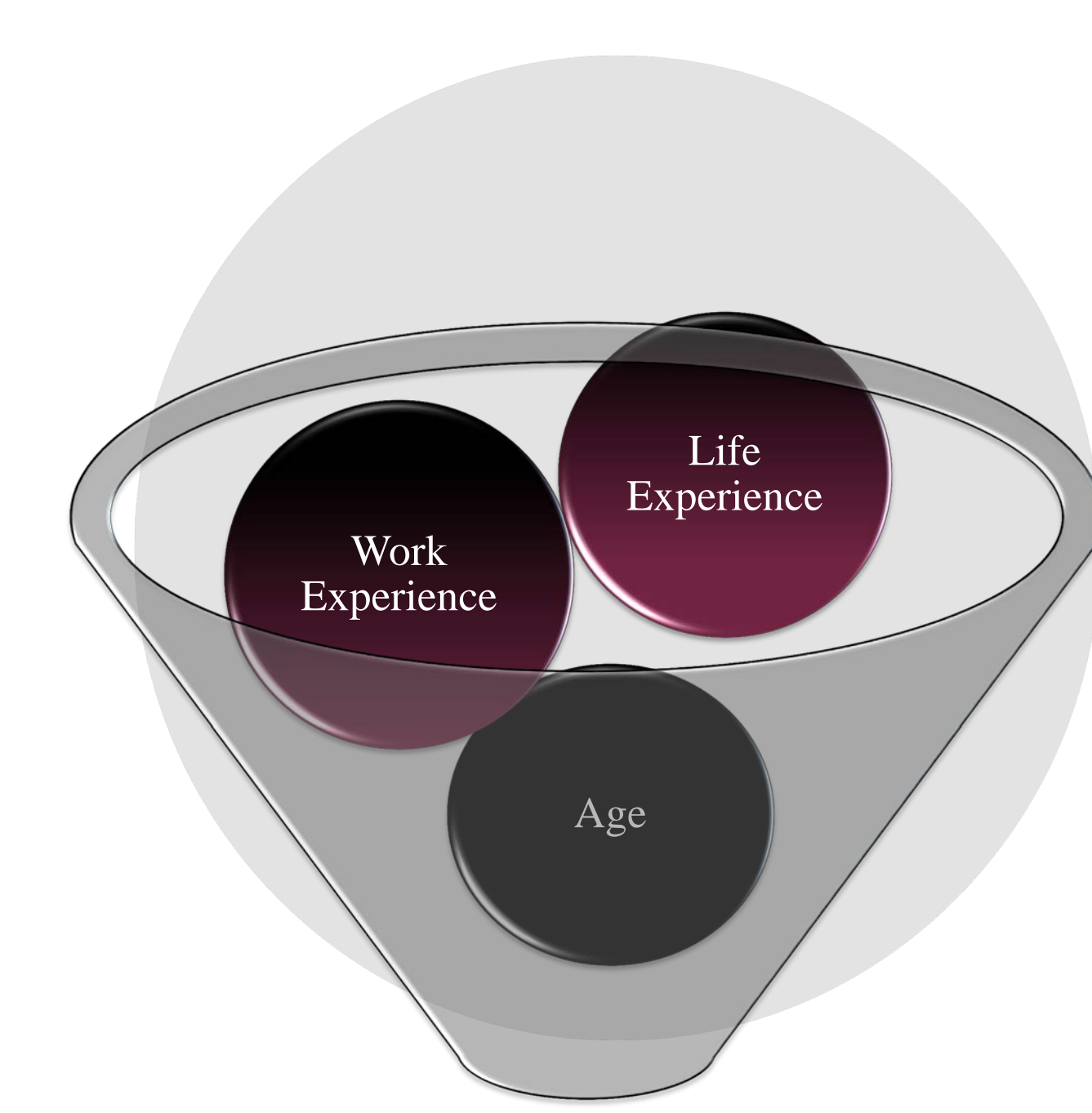
Theme 3: Age plays a role in the students' ability to relate to senior members of the medical team, as well as medical student colleagues		Relating to the medical team
Sub-Theme	Example quotes	
Comparing oneself to peers		
Traditional	<i>I get a little uncomfortable maybe because of my own insecurities about being a young medical student (1)</i>	<i>There were multiple times... where I felt that the attending was intentionally trying to make me uncomfortable and make me cry... but I was kind of prepared and so when it was happening I was like okay you are trying to make me uncomfortable and it did, but I tried to stay focused. (4)</i>
Mature-aged	<i>I feel like working before has done incredible things. I feel more mature, I feel like I can handle lots of different situations. I recommend everybody to do real work before medical school (3)</i>	<i>I do feel more comfortable working with residents and upper attendings that are my age. Third year I finally get to be normal again and be myself and use my life experience that I already have for patient care... in the work environment, I felt more myself” (5)</i>

- Mature-aged students were noted to express increased confidence in their communication skills
- Young students more readily embrace the hierarchy in medicine, which can be compounded not only by clinical experience, but by age and life experience of older team members.
- Mature-aged students enjoyed working with others of similar age in a work environment; although, at times this created uncomfortable situations, especially with resident physicians, who are still in training
- Previous life experience may make it harder for mature-aged students to conform to hospital hierarchy and order.

Summary

Mature-aged medical students may experience the clinical years differently than traditional medical students. This study employed a qualitative research design to determine the experience of mature-aged medical students in the clinical setting. The study also allowed for the comparison of experience of older medical students with their younger, more traditional counterparts.

Three main themes emerged from the research, which may not only aid medical educators in understanding the perceptions of mature-aged students, but also may have implications in admissions, curriculum design, and support initiatives.



Expectations and Role

Figure 4: Schematics showing the hypothesis we derived from our study: age, work and life experience all shape the expectations and role of mature-aged medical students.

Theme 1: Abundant life experience influences the student's perspective of their role as a medical student on clinical rotations.

Theme 2: Previous work experience shapes expectations of the role as a physician in training on clinical rotations.

Theme 3: Age plays a role in the students' ability to relate to senior members of the medical team, as well as medical student colleagues.