

## What Do Medical Students Want From a Mentor?

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PRiMER. 2022;6:36.

Published: 9/8/2022 | DOI: 10.22454/PRiMER.2022.552177

### Abstract

**Introduction:** The medical education literature lacks a uniform definition of mentoring. Mentoring relationships benefit the mentor and mentee. Mentoring roles include coach, advisor, teacher, counselor, and sponsor in the setting of mutual trust toward impacting psychosocial and career functions for the mentee. Mentoring helps improve underrepresented minority medical student performance. Medical students value mentoring relationships. Student mentees note a positive influence on career planning and research and saw mentors as counselors, idea providers, and role models. Medical students' varied goals and development call for personalized, flexible mentoring.

**Methods:** This study sought to expand the current understanding of medical student mentoring. We emailed a voluntary Qualtrics survey to second-, third-, and fourth-year medical students at the Florida International University (FIU) Herbert Wertheim College of Medicine asking, "What do you want from a mentor (choose all that apply)?" Multiple choice options were constructed based upon literature search. We conducted one-way analysis of variance and Tukey's test to identify whether mentoring preferences differed by student academic year.

**Results:** Of 363 students, 171 responded (47% response rate). Top-rated responses included honest feedback, responsiveness, and professional connections or networking opportunities.

**Discussion:** Student desire for honest feedback from mentors was prioritized, affirming the lack of need for impression management in the mentoring relationship. This investigation will be useful for specific mentoring relationships, helping to trigger discussion regarding specific mentoring hopes and training mentors.

## Introduction

Despite mentoring being vital in medical education, medical education literature lacks a uniform mentoring definition.<sup>1</sup> Definitions include "a longitudinal relationship in which guidance and advice is given for the purpose of professional development,"<sup>2</sup> "a naturally formed, one-to-one, mutual, committed, nonsexual relationship between a junior and senior person designed to promote personal and professional development beyond any particular curricular or institutional goals,"<sup>1</sup> and "a personal connection with a faculty member invested in helping the student achieve a personal and professional vision."<sup>3</sup> Mentee benefits include increased confidence, satisfaction, publication, and grant funding; a safe haven to discuss ideas/plans; sponsorship; recognition; and a close relationship providing encouragement, information, guidance, and feedback.<sup>1,4,5</sup> Mentor benefits include creating legacy; networking; new skills, inspiration, information and ideas; and

increased productivity, career advancement, satisfaction, and retention.<sup>1,4,5</sup>

Mentoring roles include coach, advisor, teacher, counselor, and sponsor in the setting of mutual trust toward impacting psychosocial and career functions for the mentee.<sup>5-7</sup> Unlike the services of a coach or counselor, mentoring does not require a fee.<sup>8</sup> As a coach, the mentor develops a specific mentee skill, task, or goal.<sup>6</sup> As an advisor, the mentor imparts specific professional development.<sup>6</sup> As a counselor, the mentor encourages self-reflection.<sup>5</sup> As a sponsor, the mentor advocates for the mentee via networks and opportunities.<sup>2,5</sup>

Mentoring may further career and psychosocial development of mentor and mentee.<sup>7,9</sup> Psychosocial functions include competence, confidence, identity, and effectiveness.<sup>5,7,9</sup> Trust is foundational; the relationship is rather intimate, with mentee and mentor learning about each other's lives.<sup>4,10</sup>

Conflict may occur when a supervisor acts as a mentor.<sup>4,6,11</sup> The supervisor's need to evaluate the mentee's work may conflict with the promoting the mentee.<sup>12</sup> Nonetheless, one's chair may effectively mentor.<sup>11</sup>

Effective mentors need knowledge about career planning, roles, expectations, and policies, and professional communication and relationship skills.<sup>5,13</sup> Mentoring skills include maintaining confidentiality; challenging others beyond comfort zones, connecting others, serving as role models, communication, support, motivation, feedback, reflection, and research skills.<sup>5,13,14</sup> Mentoring attitudes include respect, humility, willingness, compassion, inclusivity, commitment to invest time and energy, and optimism over cynicism.<sup>5,13</sup>

Mentoring and advising improve underrepresented minority medical student performance.<sup>15</sup> Black, Hispanic, and female residents valued, but were challenged with finding, mentors with concordant gender and racial/ethnic identities.<sup>16</sup> Matching mentoring relationships based on demographics may be preferred, but is not usually possible with decreased relative minority mentor numbers.<sup>2</sup> Mentor sensitivity is more important than concordant gender, race or ethnic mentoring relationships.<sup>10</sup> Mentors sensitive to mentee needs may effectively mentor across ethnic or gender discordance.<sup>4</sup> Bettis et al found that while gender-concordant mentors were not vital for women surgeons, female surgeon role models were key.<sup>17</sup>

Our literature search revealed fewer studies regarding medical student mentor characteristics than for residents and faculty. Only 25 papers met our inclusion criteria for one student mentoring program review.<sup>18</sup> Several articles detailed specific student mentoring aspects (eg, military-related medical students,<sup>19</sup> fourth-year medical students,<sup>3</sup> third- and fourth-year student mentoring program,<sup>20</sup> and informal mentoring).<sup>1</sup>

Medical students value mentoring relationships.<sup>1</sup> Students without family/friend physicians believed they needed mentoring more than students with family/ friend physicians, noting difficulty in understanding personal and professional roles.<sup>20</sup> Fourth-year students emphasized mentoring relationship support, trust, and personal connection toward empowerment and career development.<sup>3</sup> Third- and fourth-year students stated mentoring provided students a free zone, hope, and support in transitioning to physician.<sup>20</sup> Student mentees noted a positive influence on career planning and research, viewing mentors as counselors, idea providers, and role models.<sup>15</sup> Students' varied goals and development necessitate personalized, flexible mentoring.<sup>1,21</sup> Medical student mentors should be available, convey respect and confidence, focus on the mentee, ask questions, track progress, identify strengths, and give feedback, avoiding promoting agendas, using free labor, taking credit, and making clones.<sup>1</sup>

## Methods

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We emailed a voluntary Qualtrics survey to second-, third-, and fourth-year medical students at the Florida International University (FIU) Herbert Wertheim College of Medicine asking, "What do you want from a mentor (choose all that apply)?" We constructed multiple-choice options based upon literature search. The survey link was emailed three times over 9 days in June 2019 and was open for 2 weeks. We conducted one-way analysis

of variance (ANOVA) and Tukey's test to identify whether mentoring preferences differed by student academic year. The FIU Office of Research Integrity determined this project was exempt from review.

## Results

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Of 363 students, 171 responded (47%; Tables 1 and 2, Figure 1). Top-rated responses by all classes were similar: honest feedback, responsiveness, professional connections or networking opportunities, specific specialty guidance, general medical career guidance, and challenges me to grow beyond my comfort zone. First-year students ranked reliability (n=32, 56.14%) as their seventh option, third-year students tied in their ranking of encouragement (n=23, 43.40%) and reliability equally as seventh and eighth, and fourth-year students ranked encouragement as seventh (n=35, 57.38%). ANOVA demonstrated no statistically-significant differences among the three cohorts in each preference (honest feedback ( $F=0.37$ ,  $P=0.692$ ), responsiveness ( $F=1.14$ ,  $P=.692$ ), and professional connections or networking opportunities ( $F=0.18$ ,  $P=0.8366$ ), confirmed by Tukey post hoc analysis (Table 3).

## Discussion

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Student desire for honest feedback from mentors was ranked highest by respondents. When trainees are assessed, many strive to avoid a poor impression<sup>22</sup> by remaining silent when uncertain and avoiding asking for help.<sup>23</sup> Yet, students clearly prioritized honest feedback from mentors in our study. Because mentors do not evaluate students, students may feel they can prioritize honest feedback rather than managing impressions.

While we did not detect statistically significant differences among the three cohorts, there were minor cohort response differences. Third-year students chose fewer responses than other cohorts, possibly due to an abundance of residents and faculty to ask questions. Second-year students rated specialty-specific guidance at a lower rate than upperclassmen, aligning with their decreased clinical rotation exposure. That fourth-year students rated research expertise at a lower rate than other cohorts may be due to their being assigned a research mentor for required curricular research and finalizing research for residency application inclusion. This speaks to mentoring needs changing over the course of training, just as mentoring needs change over the course of one's career and presents another area ripe for future study, for instance, further exploring evolving mentoring needs during school through more in-depth qualitative or mixed-method investigation.

Our investigation may be useful for specific mentoring relationships, helping to trigger discussion regarding specific mentoring hopes and training mentors, as has been done at our institution.

Study limitations include the limited number of responses available; this study was a snapshot of student considerations. Future areas of study include following responses over time, including first-year students, and researching the impact of gender, race, or family history of higher education on choices.

## Tables and Figures

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**Table 1: Student Participation and Demographics**

	Class of 2022 n (%)	Class of 2021 n (%)	Class of 2020 n (%)
Survey respondents*	58 (34)	53 (31)	61 (35)
Student demographics			
Number of students upon matriculation	120 (100)	123 (100)	126 (100)
Average age	23	23	24
First generation college	28 (23)	26 (21)	25 (20)
<b>Gender</b>			
Female	60 (50)	64 (52)	61 (48)
Male	60 (50)	59 (48)	65 (52)
<b>Race</b>			
American Indian or Alaska Native	0 (0)	0 (0)	2 (2)
Asian	24 (20)	35 (28)	31 (25)
African-American/Black	17 (14)	11 (9)	13 (10)
Hispanic, Latino, or of Spanish origin	34 (28)	39 (32)	42 (33)
Native Hawaiian or Other Pacific Islander	0 (0)	0 (0)	1 (1)
Not reported	3 (3)	4 (3)	3 (2)
Other	5 (4)	2 (2)	3 (2)
White—not Spanish/Hispanic/Latino	37 (31)	32 (26)	31 (25)

\*Total N=172.

**Table 2: Student Responses to “What Do You Want From a Mentor?”**

Survey Responses	Class of 2022 Second-Year Students n (%)	Class of 2021 Third-Year Students n (%)	Class of 2020 Fourth-Year Students n (%)	Total n (%)
Honest feedback	43 (75.44)	38 (71.70)	48 (78.69)	129 (75.44)
Responsiveness (returns emails/calls)	40 (70.18)	34 (64.15)	47 (77.05)	121 (70.76)
Professional connections or networking opportunities	34 (59.65)	34 (64.15)	36 (59.02)	104 (60.82)
Specific specialty guidance	25 (43.86)	35 (66.04)	36 (59.02)	96 (56.14)
General medical career guidance	31 (54.39)	33 (62.26)	31 (50.82)	95 (55.56)
Challenges me to grow beyond my comfort zone	31 (54.39)	27 (50.94)	36 (59.02)	94 (54.97)
Encouragement	28 (49.12)	23 (43.40)	35 (57.38)	86 (50.29)
Reliability	32 (56.14)	23 (43.40)	26 (42.62)	81 (47.37)
Clinical expertise	25 (43.86)	22 (41.51)	24 (39.34)	71 (41.52)
Availability	23 (40.35)	23 (43.40)	24 (39.34)	70 (40.94)
Sounding board (someone to bounce ideas off of)	26 (45.61)	18 (33.96)	23 (37.70)	67 (39.18)
Research expertise	22 (38.60)	20 (37.74)	17 (27.87)	59 (34.50)
Willingness to discuss the undiscussable (for example: gender or race discrimination or sexual harassment)	18 (31.58)	9 (16.98)	13 (21.31)	40 (23.39)
Willingness to discuss ethical issues	11 (19.30)	2 (3.77)	10 (16.39)	23 (13.45)
Other (typed in comments)*	4 (7.02)	4 (7.55)	5 (8.20)	13 (7.60)
Praise and complements	5 (8.77)	0 (0)	3 (4.92)	8 (4.68)
Not really sure	0 (0)	0 (0)	1 (1.64)	1 (0.58)

Respondents could choose more than one option.

\*Free responses typed in:

“Actually takes the time to get to know me/reads up on me before a meeting.”

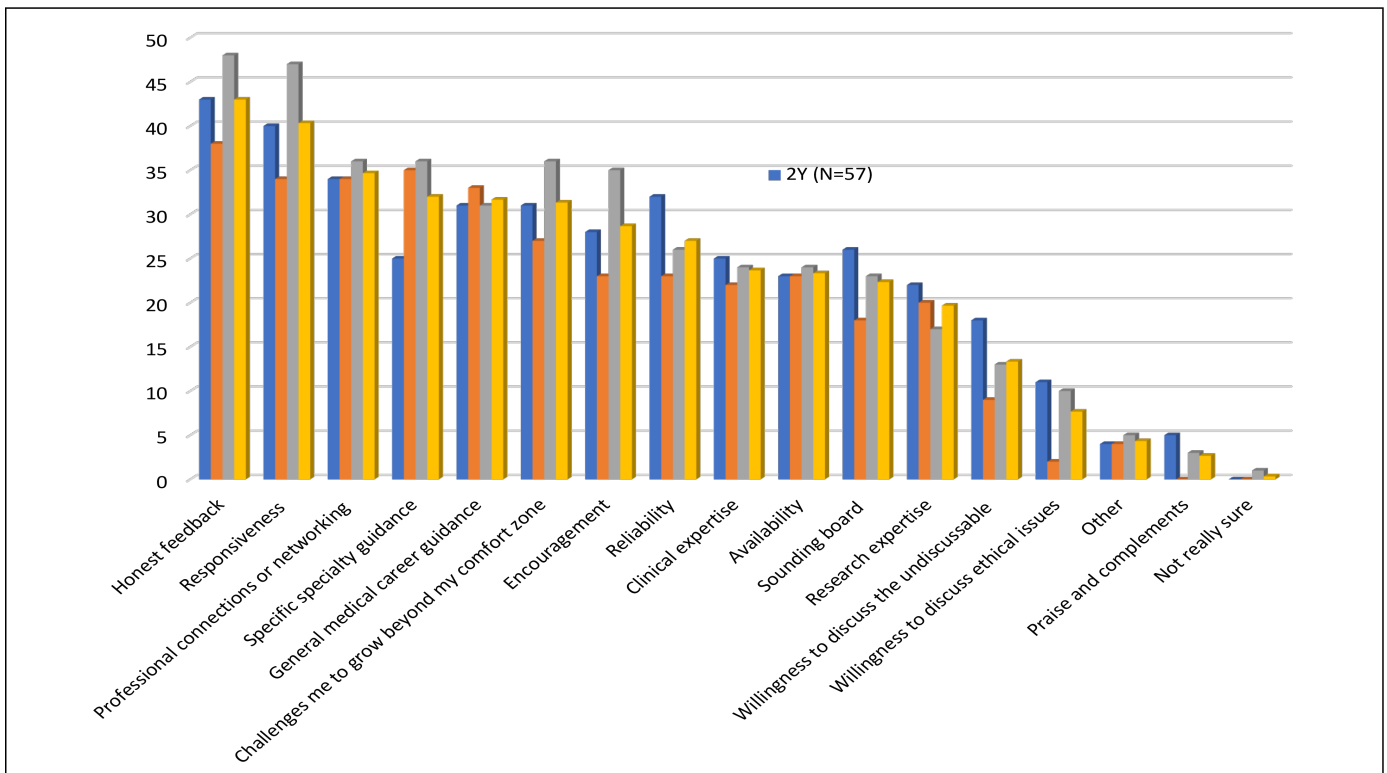
“Respectful to others.”

“Follows up and checks in every so often.”

“Someone that actually cares and not just a mentor to have the title.”

“I don’t want encouragement or praise necessarily, but I want them to show interest in my potential.”

**Figure 1: Year-to-Year Comparison Per Variable Including Mean**



**Table 3: Analysis of Variance**

Mentoring Preference	Df	ANOVA SS	Mean Square	F Value	P Value
Response 1: Honest feedback	2	0.14	0.07	0.37	.69
Response 2: Responsiveness (returns emails/calls)	2	0.05	0.24	1.14	.32
Response 3: Professional connections or networking opportunities	2	0.09	0.04	0.18	.84

## Acknowledgments

The authors thank Drs Robert Goldszer, Vivian Obeso, Karin Esposito, and Carolyn Runowicz, and Mr Michael Paez for their support.

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