

## BACKGROUND

- A key approach to diversifying the physician workforce is ensuring that first-generation (FG) students become physicians.<sup>1</sup>
- FG students must assimilate into an unfamiliar community and confront the multifaceted demands of medical training. These challenges can be managed through effective mentorship.<sup>2</sup>
- Mentorship in medical school has been associated with easier adaptation to the learning environment, increased social support, improved personal well-being, higher scholarly activity, and success with the residency match.<sup>3</sup>
- However, few mentorship programs address the specific needs of FG students.

## METHODS

### Aims.

- To understand the perceptions of FG students regarding personal well-being, professional identity, social capital, sense of belonging, and family.
- To identify the areas of mentoring in which FG students need help.
- To evaluate the quality of the mentor-mentee relationships.
- To evaluate the effectiveness of FirstUp.

**Program Description.** The mission of the FirstUp Mentorship Program is threefold:

- To promote the well-being and achievement of FG students.
- To foster a community of shared experience and belonging.
- To provide opportunities for developing social and cultural capital and professionalism through direct mentorship from FG faculty.

**Study Design.** A descriptive cross-sectional study with quantitative data collected within a two-week period in January 2020.

**Study Sample.** First-year FG medical students from the second-year cohort of the FirstUp Mentorship Program at the University of Colorado School of Medicine (CUSOM).

**Instrument.** An online questionnaire consisting of multiple-choice and Likert-scale questions that assessed demographic characteristics, perceptions based on FG status, mentorship needs, quality of the mentor-mentee relationships, and quality of FirstUp.

**Statistical Analysis.** Qualtrics XM for questionnaire design, distribution, and statistical analysis. Descriptive statistics were used to examine the data and synthesize trends.

**COMIRB.** Not applicable.

**Disclosures.** There are no conflicts of interest to disclose.

## RESULTS

Table 1. Characteristics of n = 17 respondents.

Characteristics	Respondents
<b>Age</b>	
21 or younger	1 (6%)
22-25	9 (53%)
26-30	6 (35%)
31-35	1 (6%)
<b>Gender</b>	
Male (including transgender men)	9 (53%)
Female (including transgender women)	8 (47%)
<b>Race-Ethnicity</b>	
White	5 (29%)
Hispanic or Latinx	3 (18%)
Asian	4 (24%)
Prefer to self-describe <sup>a</sup>	5 (29%)
<b>First-Generation Status</b>	
First-generation high school graduate	2 (12%)
First-generation college or university graduate	14 (82%)
Prefer to self-describe <sup>b</sup>	1 (6%)

<sup>a</sup>Respondents indicated “multiracial,” “Middle Eastern,” and “Jordanian”

<sup>b</sup>Respondent indicated “first-generation American”

Table 2. First-generation medical students’ mentorship needs. (n = 17)

Area of Mentoring	Mean (Std Deviation)
Residency application	4.24 (±1.06)
Career planning	4.24 (±0.55)
Professional networking	4.18 (±0.71)
Scholarships	4.00 (±0.97)
Clinical rotations	4.00 (±0.97)
Finding research projects	3.65 (±1.13)
Work-life balance	3.24 (±1.06)
Experiences abroad	3.12 (±1.49)
Personal growth	3.00 (±1.03)
Managing time	2.88 (±1.28)
Managing stress	2.88 (±1.23)
Confidence building	2.88 (±1.32)
Participating in student organizations	2.71 (±0.75)
Preparing for exams	2.53 (±1.09)
Electives	2.12 (±0.68)
Other <sup>a</sup>	1.40 (±0.80)

<sup>a</sup>Respondents did not specify an area of mentoring

- 76% of respondents are “moderately” or “extremely” satisfied with the relationships with their mentors.
- 100% of respondents think FirstUp is effective in supporting their needs.

Figure 1. First-generation medical students’ perceptions of personal well-being, professional identity, social capital, sense of belonging, and family. (n = 17)

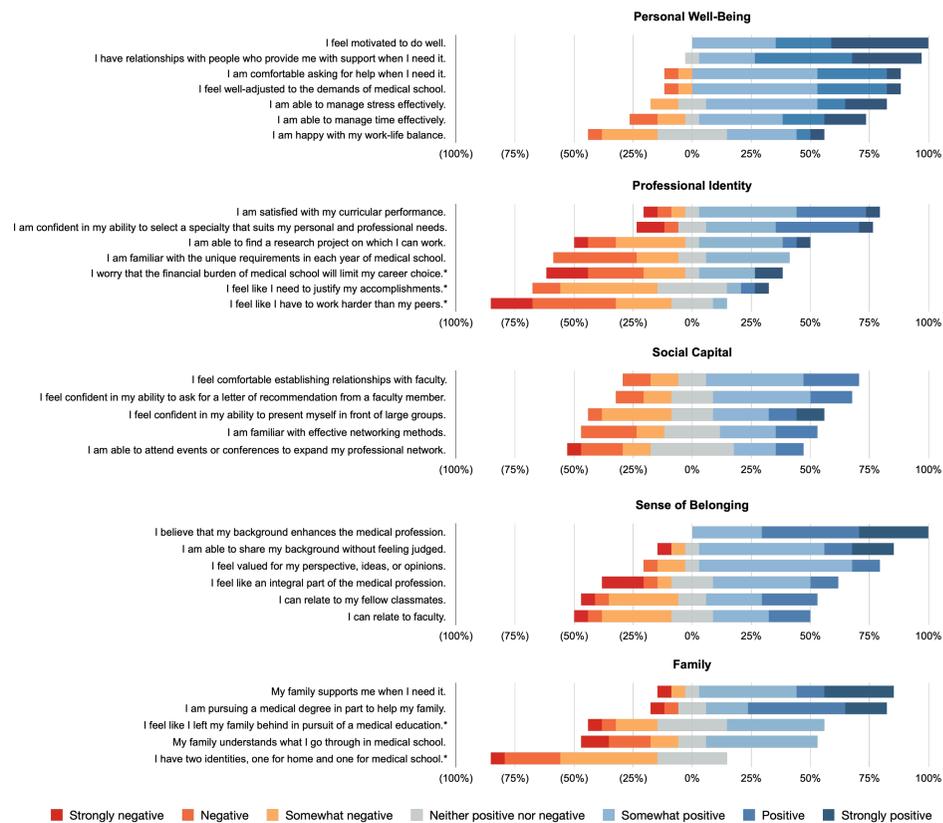
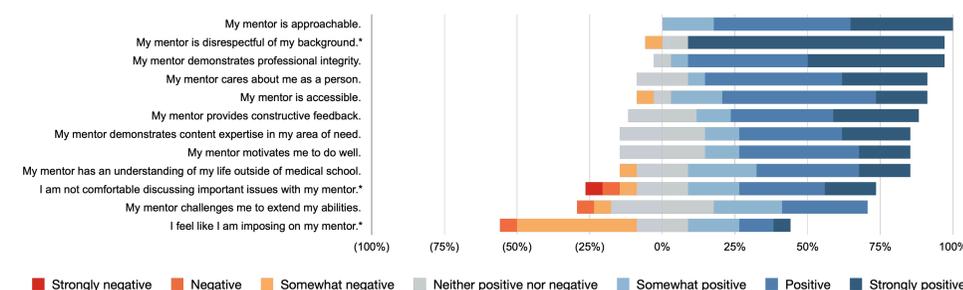


Figure 2. First-generation medical students’ evaluation of their mentors. (n = 17)



## CONCLUSION

### Conclusion.

- Positive ratings of personal well-being speak to the innate resilience and perseverance of FG students.
- Positive ratings on sense of belonging reflect FG students’ understanding of how their backgrounds enhance the medical profession.
- Negative ratings of professional identity and family are consistent with FG students’ difficulty integrating personal and professional demands, as well as two disparate identities.
- FG students’ needs in the residency application process, career planning, professional networking, scholarships, and clinical rotations reflect a non-familiarity with the medical education process overall.

### Implications.

- Formalized mentorship from FG faculty is an effective approach to supporting FG students’ needs.
- Mentorship programs that directly target FG students’ families and support systems could help integrate their professional and personal identities.
- Workshops that teach professional networking, offer financial advice, outline the medical education timeline, and provide more opportunities to interact with faculty may target the areas of mentoring most needed by FG students.

### Limitations and Future Directions.

- A descriptive cross-sectional analysis does not provide insight into changes over time. A longitudinal evaluation of the short- and long-term successes of participants is needed.
- Objective outcomes such as clerkship grades, research publications, conferences attended, residency interviews, and success with the residency match may be more useful in assessing the effectiveness of FirstUp.
- The absence of feedback from mentors remains a large gap of this study’s aim to evaluate FirstUp overall.

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