



Characteristics of Medical School Applicants: A Single-Institution Study

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BACKGROUND AND OBJECTIVES: Medical schools aim to admit talented learners who are honest, patient centered, and caring, in addition to possessing the required cognitive skills. The Association of American Medical Colleges (AAMC) describes core competencies for entering medical students in three categories: science, preprofessional, and thinking and reasoning. The authors sought to determine desired characteristics of medical school applicants at a rural, community-based medical school in light of the published core competencies.

METHODS: This qualitative study involved an analysis of data from discussion groups, all from a convenience sample of participants. The authors led the discussion groups, and large sticky note pads and pens were provided to scribe responses. Group members were given the prompt, "What do you see as traits or characteristics of your ideal doctor?" We used a content analysis approach to analyze the data.

RESULTS: The total number of responses across groups was 243, representing 15 unique characteristics. The 15 characteristics, listed in decreasing order of frequency, included good communicator, knowledgeable, dedicated, compassionate, respectful, community oriented, well rounded, patient, team player, available, leader, positive attitude, equal treatment, prevention focused, and urgency when needed for patient care. Of the top characteristics with 20 or more responses, alignment with AAMC competencies was noted, but less so with being community oriented as defined by study participants.

CONCLUSIONS: This study demonstrates that there are unique characteristics that a rural community and its medical school consider when admitting applicants to their medical program. Further research is needed to explore the need for additional competencies for rural medical schools to consider for entering medical students.

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skills, cultural competence, oral communication, resilience, and dependability. We hypothesized that medical schools with a rural presence recruit applicants with backgrounds and characteristics that specifically foster the desire to practice rural medicine.³⁻⁵ Brody, recognized by the American Academy of Family Physicians as number two in the nation and number one in the state in producing graduates pursuing family medicine,⁶ only admits students from the state of North Carolina.

Prior successful initiatives aimed at increasing the rural physician workforce have included programs oriented toward rural practice that were operated by medical schools located in urban settings.⁷ Several urban medical schools have also described success with increasing the number of graduates entering rural practice by opening satellite campuses in rural areas.⁸⁻¹¹ For campuses or schools located in rural areas, there is a need to identify applicants who will be actively engaged in the communities in which they live, embarking to make positive change. Considering the nation-wide decline in medical student applicants who have a rural upbringing,¹² there

Medical schools aim to admit talented learners who are honest, patient centered, and caring, in addition to possessing the required cognitive skills.¹ The Association of American Medical

Colleges (AAMC) describes core competencies for medical students in three categories: science, preprofessional, and thinking and reasoning.² Preprofessional competencies include service orientation, social

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must be an intentional approach to recruit the rural applicant to medical school with attention paid to rural background and other characteristics that may lead to the desire to practice rural medicine.^{3-5, 13} Because of Brody's unique orientation toward primary care and service to rural communities, we sought to determine how expectations for applicants among academic personnel, and community members overlap with AAMC core competencies.

Methods

Participants

This qualitative study utilized a convenience sample of academic and community members in rural eastern North Carolina. The study coordinator (K.L.) worked with the director of outreach for the school of medicine to identify and contact community participants. There were no incentives for participation. Choice of study participants was based on prior knowledge of and interaction with the participants in other community settings. Participants were recruited through phone or email contact by the study coordinator. The two academic discussion groups included Brody faculty, staff and students.

Table 1 gives a description of the study participants.

Procedure

The Institutional Review Board at East Carolina University approved this study. After participants were identified, each group was scheduled to meet separately, so there was no mixing of participants. At each discussion session, researchers explained the intent of the project, including an overview of the current applicant screening process at Brody. Discussion groups were led by authors (K.M.C., K.L.). Large sticky note pads and pens were provided to scribe responses. Group members were given the prompt, "What do you see as traits or characteristics of your ideal doctor?" They were not provided the AAMC competencies. Participants in each group were able to scribe and share for 1 hour. Discussion group results were reviewed, coded, and themed by authors (K.M.C., K.L.), and any disagreements resolved by one author (P.A.). The authors achieved alignment with the AAMC competencies by consensus, with disagreements also resolved by one author (P.A.).

Analysis

We used a summative approach to content analysis to analyze the data recorded on sticky notes.^{14,15} We then compared the results to the AAMC core competencies for entering medical students.²

Results

The total number of responses across groups was 243, representing 15 unique characteristics. The characteristics, as well as frequency counts for each term are shown in Table 2. Characteristics that were more commonly reported, which the authors defined as those with 20 or more comments, included good communicator (18%), knowledgeable (13%), dedicated (13%), compassionate (12%), respectful (11%), and community oriented (9%). Responses for these characteristics were 43, 32, 31, 29, 27, and 23 respectively (Table 3). The following top study responses aligned with stated AAMC competencies: good communicator with oral communication, knowledgeable with critical thinking, dedicated with ethical responsibility to self and others, compassionate with social skills and respectful with reliability and dependable.

Table 1: Study Participants and Descriptions

| Group | No. per Group | Domain | Description |
|--|---------------|-----------|---|
| Academic Affairs Partnership Group | 27 | Academic | Group of faculty and staff who work in the division of Academic Affairs in the Brody School of Medicine to support the delivery of all aspects of the educational program |
| Brody School of Medicine Medical Student Council | 20 | Academic | Medical students across all four years of the academic program |
| Intergenerational Community Center (IGCC) | 12 | Community | IGCC is a community center designed to promote family and community empowerment (https://igcc.ecu.edu/) |
| Pitt County Chamber of Commerce | 3 | Community | Volunteer organization of business professional, industrial and community leaders that promotes the general overall economic and cultural growth of the community (https://www.greenvillenc.org/home/) |
| Interprofessional community group | 8 | Community | Participants were a mix of individuals, two were members of a social work community club, two current and one retired education professional, one retired military, one community hospital employee and one middle school nurse. |

Table 2: Themes Identified per Group

| Theme | Total Number of Responses | Number of Responses per Group | | | | |
|--------------------------------------|---------------------------|------------------------------------|--|---|---------------------------------|-----------------------------------|
| | | Academic Affairs Partnership Group | Brody School of Medicine Medical Student Council | Intergenerational Community Center (IGCC) | Pitt County Chamber of Commerce | Interprofessional Community Group |
| Good communicator | 43 | 15 | 14 | 6 | 2 | 6 |
| Knowledgeable | 32 | 12 | 9 | 2 | 5 | 4 |
| Dedicated | 31 | 15 | 14 | 1 | 0 | 1 |
| Compassionate | 29 | 11 | 10 | 2 | 3 | 3 |
| Respectful | 27 | 8 | 11 | 2 | 1 | 5 |
| Community oriented | 23 | 5 | 11 | 0 | 2 | 5 |
| Well rounded | 14 | 3 | 7 | 0 | 3 | 1 |
| Patient | 10 | 2 | 4 | 2 | 0 | 2 |
| Team player | 8 | 4 | 4 | 0 | 0 | 0 |
| Available | 7 | 2 | 0 | 0 | 1 | 4 |
| Leader | 7 | 2 | 4 | 0 | 1 | 0 |
| Positive attitude | 6 | 0 | 5 | 0 | 0 | 1 |
| Equal treatment | 4 | 1 | 0 | 2 | 0 | 1 |
| Prevention focused | 1 | 0 | 0 | 0 | 1 | 0 |
| Urgency when needed for patient care | 1 | 0 | 0 | 0 | 0 | 1 |

Discussion

The results of this study demonstrate characteristics a rural community and its medical school find as important traits of a physician. While study findings aligned with AAMC competencies in many ways, being community oriented was an additional competency that was identified. In rural areas, community orientation is important to prepare students for the leadership role they will assume in the community, and to help them understand the community's health needs.¹⁶ In addition, introducing the medical school to the community can advance community goals, inform medical school initiatives, and impact health and academic outcomes.^{17,18} Results from this study, although from a single

institution study with small discussion groups, suggest the importance of applicants to medical school being community oriented. This has special significance for rural, community-based medical schools with a goal to increase numbers of physicians going into primary care specialties.

Limitations of this study include a convenience sample of participants at a single institution, and use of a single prompt to capture responses. Also, confounders could be introduced because the participants were selected by the authors (K.M.C., K.L.) and Brody's outreach director. However, prior research has suggested that unpacking the components of an agreed-upon composite goal (eg, "successful physician") is an important precursor to

optimizing medical school admission criteria and processes.¹⁹ Brody students possibly introduce bias as they are already rurally minded. The study would have been strengthened if discussion groups were held with students from other institutions and disciplines.

Conclusion

This study demonstrates characteristics that a rural community and its medical school consider when admitting applicants to their medical program. Further research should be done to determine if being community oriented should be a defined core competency for entering medical students.

Table 3: Categorization of Study Results With AAMC Core Competencies and Focus Group Responses

| AAMC Core Competencies | Study Results (# of Responses) | Focus Group Responses |
|--|--------------------------------------|---|
| Preprofessional competencies: <ul style="list-style-type: none"> • Service orientation • Social skills • Cultural competence • Teamwork • Oral communication • Ethical responsibility to self and others • Reliability and dependability • Resilience and adaptability • Capacity for improvement | Good communicator (43) | Active listening, adaptable, adaptive, approachable, asks patients questions, attentive, communicate effectively, communicate to staff, communication skills, communicative, conversational, down to earth, easy to talk to, excellent communicator with other doctors, explains, explains well, flexible, good communicator, good listener, interpersonal communication, listen, listener, listens, open-minded, open to feedback, personable, practical, realistic, relatable, relationship, sociable, socially competent, strong communication skills, versatile, write down the facts |
| | Dedicated (31) | Advocate, ambitious, cheerleader, commitment, continuity, dedicated, driven, effective, efficient/effective documentation, encourager, engaged, enjoys a challenge, focused, go-getter, hardworking, integrity, patient advocate, passionate, persistent, practice what you preach, professional integrity, resilient, tenacious, thorough, trustworthy, willing to challenge you, willing to go the extra mile |
| | Compassionate (29) | Altruistic, caring, compassion, compassionate, concern, concerned beyond physical health, empathetic, empathy, friendly, gentle, genuine, good friend, kind, relatable, tolerant of others |
| | Respectful (27) | Ability to learn from mistakes, accountable, bedside manner, believe patient, good bedside manner, honest, honest/integrity, humble, humble/not arrogant, know how to treat staff, nonjudgmental, nonjudgmental/open-minded, office management, open minded, respectful, timely |
| | Community oriented (23) | Aware of community that they serve, community oriented, community commitment, community involvement, community oriented, community partner, culturally competent, diverse perspective, diverse staff, embraces diversity, inclusive, interested in making community and Brody better, meets patients where they are, mentor to community, relate to diverse community, service oriented, socially/culturally aware, willing to stay in Greenville to practice |
| | Well rounded (14) | Balanced, emotionally mature, emotionally stable, happy/fulfilled, healthy, introspective, level-headed, passionate about something other than medicine, perform more than academically, personality assessment, self-aware, well rounded |
| | Patient (10) | Be patient, patient, patience, take time |
| | Team player (8) | Collaborative, not always the leader, servant leader, team oriented/team player, team player |
| | Available (7) | Accessibility/location and insurance, accessible, availability, home visits, increasing access, personal calls |
| | Leader (7) | Future mentor, leader, licensed professional, role model for other doctors |
| | Positive attitude (6) | Good attitude, optimistic, positive, positive attitude |
| | Equal treatment (4) | Equal treatment, fair treatment, quality care, see wellness and health potential in every patient |
| | Prevention focus (1) | Prevention Focus |
| Urgency when needed for patient care (1) | Urgency when needed for patient care | |

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Table 3: Continued

| AAMC Core Competencies | Study Results (# of Responses) | Focus Group Responses |
|---|--------------------------------|---|
| Thinking and reasoning competencies: <ul style="list-style-type: none"> Critical thinking Quantitative reasoning Scientific inquiry Written communication | Knowledgeable (32) | Academic success, capable/willing, competent, creative/resourceful, critical thinker, curious/inquisitive, current knowledge, deductive reasoning, educate patient, experienced/diverse experiences, holistic, holistic thinker, insightful, intelligent, interdisciplinary, knowledgeable, knows limitations and refers when needed, lifelong learner, professional development, proper screening, evaluation & referral, quick thinker, researcher, smart, student, thinks outside of the box, understands processes, well educated |
| Science competencies: <ul style="list-style-type: none"> Living systems Human behavior | | |

Abbreviation: AAMC, Association of American Medical Colleges.

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