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## ORIGINAL RESEARCH PAPER

# Why a Medical Career and What Makes a Good Doctor? Beliefs of Incoming United States Medical Students

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## ABSTRACT

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**Introduction:** Beginning medical students' beliefs about the medical profession have been well studied internationally but have only been minimally studied in the United States (U.S.) recently. Up-to-date research on U.S. medical students' beliefs is warranted so educators can employ these predispositions as a baseline for curriculum and student professional development.

**Methods:** We conducted focus groups with a first-year class (n=189) of U.S. medical students at the beginning of their academic year. In an iterative theming process, investigators worked in dyads and subsequently as a group to develop a list of preliminary themes expressed in the focus groups. Investigators individually sorted preliminary themes into similar categories. All sorted preliminary themes and categories were placed in a matrix from which final themes were derived.

**Findings:** Investigators found eight themes for the question "Why pursue a career in medicine?" and six themes for "What makes a good doctor?". Students expected medicine to be intellectually and personally fulfilling, they expected to be respected by the community, indicated that early experiences with medicine impacted their career choices, and anticipated that a medical career would yield financial security. A good doctor was described as a committed, smart, decisive leader who enthusiastically partners with patients via effective interpersonal skills.

**Discussion:** Beginning U.S. medical students hold multi-faceted beliefs about medicine that are similar to international medical students' beliefs. Themes related to patient-centeredness, decisive leadership, and intellectual curiosity have particular utility in



curriculum and professional development and should not be ignored. Administrators seeking to expand the physician workforce should consider early experiences, status, and monetary rewards.

**Keywords:** Education, medical, undergraduate, focus groups, professional role, teaching, attitude of health professional, curriculum

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## Introduction

Students at the beginning of their medical training have existing visions and beliefs about medicine, and medical educators can take these predispositions as a critical baseline or starting point for curriculum and professional development (Knowles, 1984; Dall'Alba, 1998). In particular, topics such as professionalism, cultural sensitivity and patient-centered communication, which have been challenging for educators to integrate into students' training, might be more effectively addressed by knowing students' existing beliefs (Hafferty, 1998; Wagner et al., 2007). Relatedly, today's students are reported to have different work priorities and personal motivations, both of which impact learning (Bickel & Brown, 2005; Howell et al., 2005; Borges et al., 2006; Vanderveen & Bold, 2008).

While the professional beliefs of burgeoning medical students have been studied in a number of other countries (Dall'Alba, 1998; Nieuwhof et al., 2005; Garcia-Huidobro et al., 2006; Draper & Louw, 2007; McHarg et al., 2007; Miles & Leinster, 2007; Mrduljuas-Dujic et al., 2007; Tsimtsiou et al., 2007), the beliefs of United States (U.S.) medical students have principally only been assessed prior to admission (Searle & McHarg, 2003; Gough, 2004; Lumsden et al., 2005) or during students' clinical years (Smith & Weaver, 2006; Maudsley et al., 2007). These U.S. pre-admission study findings may reflect biases of students seeking to improve their chances of acceptance, and findings during the clinical years may yield a more accurate picture of the medical school environment than of students' initial beliefs (Hafferty, 1998). In international studies, Dall'Alba (1998) found beginning Swedish medical students describing medical practice as diagnosing, treating, helping, supporting, enabling and collaborating. Draper and Louw (2007) reported similar findings of a biomedical and holistic view of medicine in which the psychosocial aspects of medicine were addressed as well as traditional curative aspects. How well the findings from international studies generalize to students at U.S. medical schools is unclear due to likely differences in culture, institutional practices, health systems and medical practice.

The purpose of this study was to obtain qualitative information from first-year U.S. medical students at the beginning of their medical training regarding their preconceptions about the medical profession and practicing physicians. The study was prompted by perceived differences among generational cohorts with regard to work priorities and personal motivations and a rising physician shortage in the U.S. (Bickel & Brown, 2005; Howell et al., 2005; Borges et al., 2006; Vanderveen & Bold, 2008). We anticipated that current students begin medical school with a genuine desire to help others but also with clear intentions not to sacrifice their personal lives for their professional careers.

## Methods

This qualitative study employed a facilitated, focus group methodology which was reviewed and approved by the authors' institutional review board. We recruited 190 first-year school of medicine (SOM) students attending a state-supported southern U.S. medical school during the 2007/8 academic year. Groups were conducted during the second week of the students' first



academic year and took place in the students' first small group session of a broad-based clinical medicine course. Each focus group was facilitated by one or two SOM faculty who served as small group tutors for these students.

Participants were provided with an explanation of the focus group's purpose and were told that responses would be anonymous and have no bearing on grades. For each group, participants first completed a background questionnaire, and then a facilitator used predetermined trigger questions (e.g., *"What are some of the reasons you decided to pursue a career in medicine?"*, *"When you think of 'a good doctor,' what examples immediately come to mind?"*) to lead group discussion. Each focus group discussion was held in a room designed for small group discussions, lasted approximately one hour, was digitally recorded and then transcribed.

Using an iterative theming process, investigators worked in dyads reading a subset of focus group discussion transcripts and generating lists of preliminary topics. Next, the investigators collectively drafted an aggregate list of preliminary themes from dyad lists. This process of meeting in dyads and as a larger group was repeated until no new preliminary themes emerged from our focus group transcripts (i.e., saturation) (Strauss & Corbin, 1998).

Once saturation had been reached, each investigator conducted an independent card sort process for each focus group question. Each investigator placed cards marked with the preliminary themes into piles that he/she considered conceptually similar. Next, each investigator's sorted preliminary themes were entered into a spreadsheet matrix to determine how many investigators had sorted preliminary themes into similar categories. When four or more of the six investigators (i.e., 75% or greater) placed the same two preliminary themes together they were considered associated. Preliminary themes had to be associated with at least two other preliminary themes to be included as a final theme.

We employed the aggregate sorting matrix to remove any subjectivity in our final theme definitions. This method is similar to many existing algorithms used in commercially available qualitative analysis software and is conceptually similar to conducting factor analysis of quantitative data (Grimm & Yarnold, 1995). The process yielded a set of themes that were obtained more objectively than if the investigators had tried to find consensus on which themes should be kept in the final set.

## Findings

### Demographics

One-hundred-and-eighty-nine (99%) of the eligible 190 first-year medical students participated in the focus groups. Nineteen focus groups, each consisting of 8–11 students, took place over the course of three days during the second week of classes. Based on registration information, the mean age of the participants was 23 years, with 57.9% being men (Table 1). Sixty-three percent identified themselves as Caucasian, 16.3% as Asian, 5.7% as African-American, 3.7% as Hispanic and 11.1% as Other.

From the background questionnaire, modal household income while participants grew up was \$80,000-160,000 per year, and modal educational level attained by participants' fathers was a doctorate or MD level. Modal educational level attained by participants' mothers was a bachelor's degree, and modal population size of participants' hometowns was 50,000 to 200,000 persons.



**Table 1: Participant demographics and background**

Demographics <sup>1</sup>	%, N (190)	
<b>Age</b>	23.1 (SD=1.8)	
<b>Sex</b>		
Female	42.1	(80)
Male	57.9	(110)
<b>Race/Ethnicity</b>		
African-American	5.7	(11)
Asian	16.3	(32)
Hispanic	4.7	(7)
Caucasian	63.2	(122)
Other	11.1	(18)
<b>Background<sup>2</sup></b>	%, N	
<b>Family's Income Level</b>	(N=188)	
Less than \$20000	0.5	(1)
\$20,000-\$40,000	6.9	(13)
\$40,000-\$80,000	27.7	(52)
\$80,000-\$160,000	35.6	(67)
Greater than \$160,000	29.3	(55)
<b>Parents' Education</b>	<b>Father (N=189)</b>	<b>Mother (N=189)</b>
Less than high school or GED <sup>3</sup> diploma	1.1 (2)	1.1 (2)
High school or GED diploma	5.8 (11)	9.0 (17)
Some college or technical school training	10.1 (19)	14.3 (27)
Bachelor's degree	26.5 (50)	39.2 (74)
Master's degree	23.8 (45)	28.6 (54)
Doctorate degree	32.8 (62)	7.9 (15)
<b>Hometown</b>	(N=187)	
Less than 10,000 persons	9.6	(18)
10,000-50,000	21.4	(40)
50,000-200,000	29.9	(56)
200,000-500,000	18.2	(34)
Over 500,000	20.9	(39)

<sup>1</sup> Based on admissions information for entire class (100%) of 190 students; 99% (189) of these students participated in the focus groups.

<sup>2</sup> Obtained from background questionnaire completed by participants at onset of the focus groups.

<sup>3</sup> General Education Development (GED) diploma certifies that an individual has academic skills comparable to a United States high school graduate.

Reasons to pursue a career in medicine

Regarding the question, “*What are some of the reasons you decided to pursue a career in medicine?*”, 51 preliminary themes and eight final themes were obtained: 1) Relationships, 2) Humanitarian Impact, 3) Fulfillment, 4) Knowledge, 5) Power and Influence, 6) Status, 7) Financial Security, and 8) Early Experiences (Table 2). The theme *Relationships* addresses the unique, intimate, personal bond between physicians and patients. Making a connection with another person is valued. “...the excitement of meeting people and actually getting to know people is what really drives me sometimes.” *Humanitarian Impact* addresses the impact physicians make on others’ lives (individuals and communities). “Because I really want to make an impact on people’s lives...” *Fulfillment* is a theme that involves a general satisfaction or contentment that comes with practicing medicine. It includes a sense of pride for being a doctor. “...I was looking for something that may be, when I am like 60, 70, looking back I can feel good about you know, what I did one day.”



**Table 2: Final Themes: Reasons to pursue career in medicine**

Final Themes	Quotes <sup>1</sup>	Clustered concepts
1. <i>Relationships</i>	<p>“...the excitement of meeting people and actually getting to know people is what really drives me sometimes.”</p> <p>“...you get satisfaction just for working with people.”</p> <p>“I think for me what I really liked was the patient/doctor relationship and just being able to have that connection with someone and being able to help them and a unique way.”</p>	Other-related
2. <i>Humanitarian Impact</i>	<p>“Because I really want to make an impact on people’s lives. That is what interested me to leave behind things that are unimportant.”</p> <p>“There is an added sense of help that you can give someone when you are in this kind of field.”</p> <p>“I think there is nowhere that you can go in the world where someone is not sick and someone needs a doctor.”</p>	Other-related
3. <i>Fulfillment</i>	<p>“...I was looking for something that may be, when I am like 60, 70, looking back I can feel good about you know, what I did one day.”</p> <p>“I like to do this. I just made up my mind; this is emotionally and spiritually helpful as well.”</p> <p>“I think if you go into it for the right reasons, you can have pretty good job satisfaction continuously.”</p>	Self-related & Other-related
4. <i>Knowledge</i>	<p>“As far as science, and related to the scientific area, it interests me.”</p> <p>“I always had...an interest in science and I always wanting (sic) to be learning my entire life.”</p> <p>“I wanted a career where there would be continuous learning. Like you are always learning, you are always keeping up with medicine as it is constantly challenging on your brain and your way of thinking.”</p>	Self-related
5. <i>Power and Influence</i>	<p>“It kind of met my major requirements for the things that I needed to have in a career in order to do be happy and feel like I was actually doing something worthwhile...”</p> <p>“The responsibility is like, you know, pretty much, you have the whole situation is in your hands and you can either basically screw it or make somebody better.”</p> <p>“I think for me, I wanted to change the health care system...”</p>	Self-related
6. <i>Status</i>	<p>“For me, it has kind of been that I really admire how people view physicians and doctors.”</p> <p>“...you have respect that others don’t have.”</p> <p>“There is a lot of respect and so I really admire that...”</p>	Self-related
7. <i>Financial Security</i>	<p>“...I have never heard of an unemployed physician or doctor.”</p> <p>“...you can make a lot more money than a lot of other things and I think that if you really want to do it you have to think about the positive stuff.”</p> <p>“I have done several other things that medicine was by far something that I was hands above more passionate about than the other careers and things that I had seen done...”</p>	Job/money
8. <i>Early Experiences</i>	<p>“I...shadowed &lt;a physician&gt; in the Intensive Care Unit and just watching him treat people...that just did it.”</p> <p>“A lot of my friend’s parents were doctors and you know, they has started talking to me a lot about, you know, what I was planning on doing, and I started to be more influenced by them.”</p> <p>“My parents have been a pretty positive influence, because they have always worked hard and pushed me to work hard at school...”</p>	Early Experiences

<sup>1</sup> 75% or more of coders sorted this item(s) under this theme.



The theme *Knowledge* highlights how medicine is challenging intellectually and requires life-long learning. “As far as science, and related to the scientific area, it interests me.” *Power and Influence* reflects how the physician is the expert, agent of change for an outcome, and ultimately responsible. “The responsibility is like, you know, pretty much, you have the whole situation is in your hands and you can either basically screw it up or make somebody better.” *Status* addresses both the importance of being a physician (e.g., others trust their lives to you) as well as respect within physician’s community. “For me, it has kind of been that I really admire how people view physicians and doctors.”

The theme *Financial Security* highlights the economic aspect of medicine, including job security and high standard of living. “...you can make a lot more money than a lot of other things and I think that if you really want to do it you have to think about the positive stuff.” The theme *Early Experiences* reflects positive and/or negative early clinical experiences with a physician, positive shadowing opportunities with a physician, and family and peer expectations or modeling to pursue a career in medicine. “I...shadowed [a physician] in the Intensive Care Unit and just watching him treat people...that just did it. “

#### What makes a good doctor?

For the second question, “When you think of “a good doctor,” what examples immediately come to mind?”, 67 preliminary themes and six final themes were obtained: 1) *Good People Skills*, 2) *Partners with Patients*, 3) *Enthusiasm*, 4) *Going Beyond the Call of Duty*, 5) *Competence* and 6) *Decisive Leadership* (Table 3). *Good People Skills* describes that a physician relates positively to patients (i.e., bed-side manner) via good communication and interpersonal skills. “He [the physician] remembered who they were and their story and that is how he remembered the patients.” *Partners with Patients* reflects patient-centeredness including collaboration, negotiation, and patient education. “...a doctor who is going to actually listen and work together and hear their concerns and try to discuss, you know, ways to improve their health...” *Enthusiasm* suggests a physician should be excited to practice medicine. “I think the doctor has to have a feeling that they are glad to be a doctor, that they are excited about it...” *Going Beyond the Call of Duty* underscores that the practice of medicine extends beyond normal working hours, requires personal sacrifices and involves relentless pursuit in achieving a positive outcome. “I think you have to realize it is not just a nine to five job like you don’t just stroll in and treat patients for eight hours a day and go home.” *Competence* addresses that physicians must be knowledgeable and skilled in their field. “...he remembered details that I would not have thought that he could remember...” *Decisive Leadership* reflects being directive (i.e., taking charge of a professional team) and assertive in treatment planning. Being able to make a decision in a short span of time is valued. “I guess you would kind of need to be able to sometimes, I mean, need to be a good leader too.”

#### Concept maps

Concept maps can be useful to help viewers understand how presented information relates to other presented information or to existing information (Novak, 1990). Items that are closer or farther from one another (i.e., spatial proximity or distance) on a concept map illustrate the items’ relative conceptual overlap or lack thereof. We generated two concept maps of the final themes to illustrate how the themes related to and differed from one another (i.e., degree of overlap or distinction); we also suggested a framework for conceptualizing the themes (e.g., self- or other-related). These concept maps reflect the perceptions of the primary authors, largely trained in behavioral health, psychiatry and medicine.

In the concept map for “Why pursue a career in medicine?” (Figure 1), two clusters of themes were identified: self-related (including *Knowledge*, *Power and Influence*, and *Status*) and other-related (including *Relationship and Humanitarian Impact*). The



theme titled *Fulfillment* is affiliated with both of these clusters. Conceptually distinct, the theme of *Early Experiences* can be seen as a precursor to choosing medicine as a career and the theme of *Financial Security* can be seen as an economic outcome.

For what makes a good doctor, we conceptualized three clusters of final themes (Figure 2). The first cluster labeled Patient-Centered includes *Good People Skills* and *Partners with Patients*. The second cluster labeled Professional includes *Enthusiasm and Going Beyond the Call of Duty*. The third cluster labeled Physician Ability includes *Competence and Decisive Leadership*.

**Table 3: Final Themes and subthemes: What makes a Good Doctor**

Final Themes	Quotes <sup>1</sup>	Clustered concepts
1. <i>Good People Skills</i>	"...you have to be able to relate to patients..." "...I remember their names, I remember their offices and I remember their attitudes and they were very positive. I could tell that they cared about my family..." "He remembered who they were and their story and that is how he remembered the patients."	Patient-centered
2. <i>Partners with Patients</i>	"...a doctor who is going to actually listen and work together and hear their concerns and try to discuss, you know, ways to improve their health..." "...there are ways to present something to make something seem more attractive while still being completely honest that the patient has a choice, completely honest, but emphasizing the positives and the negatives and what you as a physician think is a good choice." "So being a good physician's job is to educate the patient and try and instruct them as to what is going on with them and give them the direction they need but in the end to have to understand that it is the patient's choice."	Patient-centered
3. <i>Enthusiasm</i>	"I think the doctor has to have a feeling that they are glad to be a doctor, that they are excited about it..." "You could tell that he really liked what he was doing..." "...they are comfortable to treat you and to make you feel better..."	Professional
4. <i>Going Beyond the Call of Duty</i>	"I think you have to realize it is not just a nine to five job like you don't just stroll in and treat patients for eight hours a day and go home." "He did everything he could to help me in many aspects of my life..." "Well, they have to drive to each hospital and to people's houses. That is a sacrifice that they take their time."	Professional
5. <i>Competence</i>	"...they are very knowledgeable..." "...he is a smart guy..." "...he remembered details that I would not have thought that he could remember..."	Physician ability
6. <i>Decisive Leadership</i>	"You have to be a good employer as well, cause you are going to have to hire and fire nurses and people that work under you." "...they make the decision and know what things need to be done and I think that is a big deal as a really big quality." "I guess you would kind of need to be able to sometimes, I mean, need to be a good leader too."	Physician-ability

<sup>1</sup>75% or more of coders sorted these quotes under this theme.

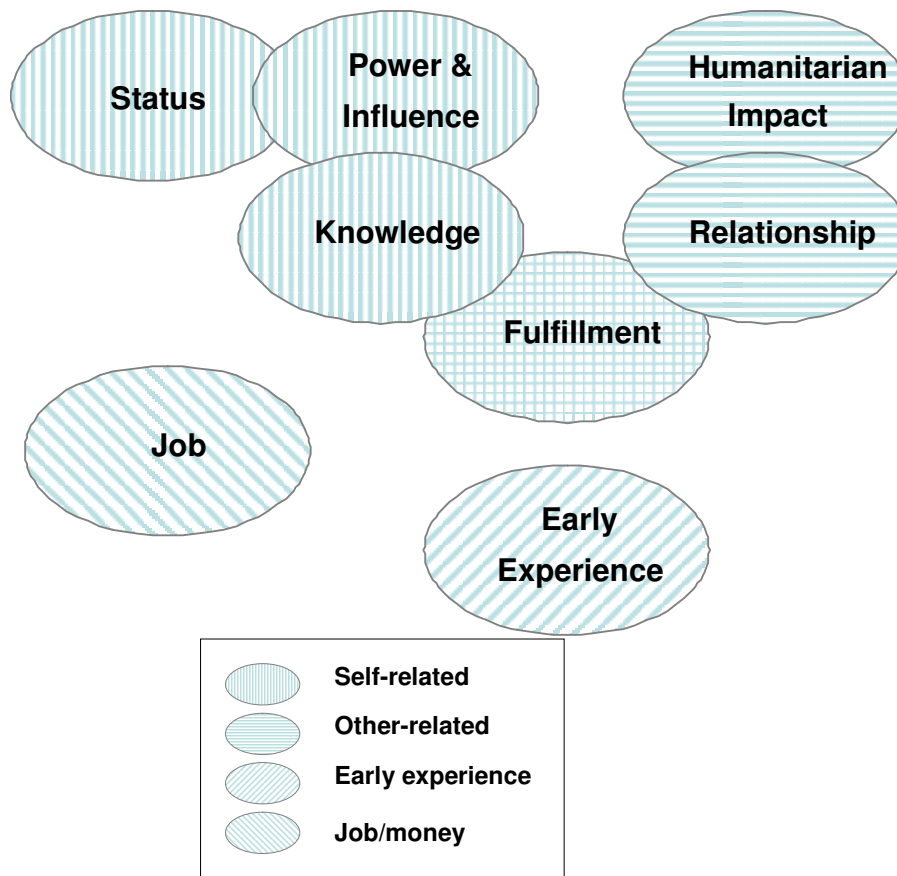


Figure 1: Concept Map - Why Pursue a Career in Medicine?

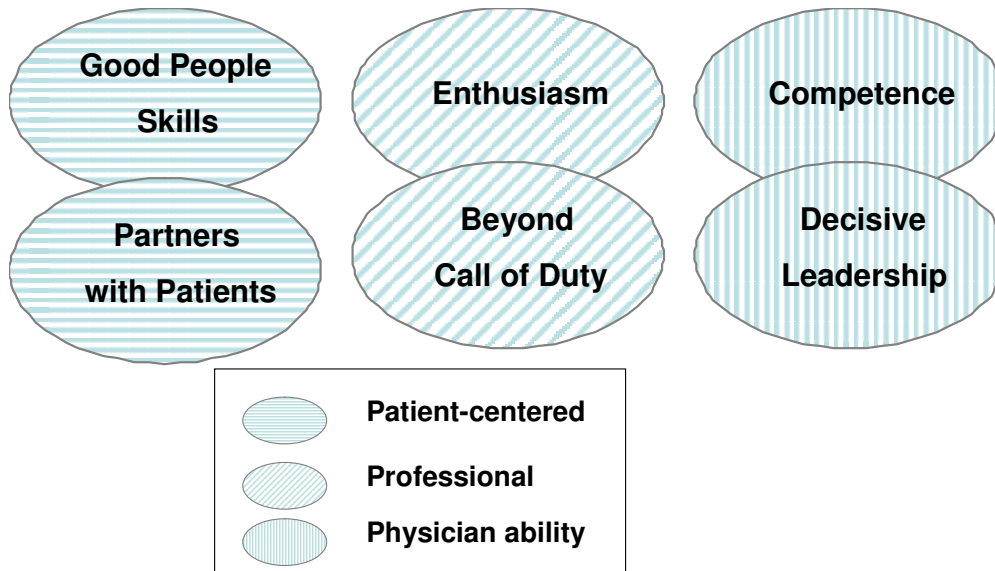
## Discussion

Why Pursue a Career in Medicine? The students in this sample offered diverse explanations for why they chose to pursue a career in medicine. Overall, the students expected medicine to be an intellectually and personally fulfilling career. They perceived the practice of medicine to be respected by their community. They indicated that early experiences in their families and with physicians impacted their choice to pursue medicine. Finally, the students acknowledged the economic aspect of medicine in that it provides financial security. These themes are consistent with themes expressed by medical students from other countries including the treating, helping, collaborating aspects of medicine (Dall’Alba, 1998) and interests in both the biomedical and social aspects of medicine (Draper & Louw, 2007).

How a career in medicine will be fulfilling was multi-faceted and can be understood as intrinsically or self-related (e.g., passion for knowledge, preference to be the agent of change) as well as extrinsically or other-related (e.g., positively impact on individuals and humanity, establishment of personal relationships). As for the self-related themes, the students consistently described having a passion for learning and knowledge, particularly in science (e.g., “Medicine appeals to my interest in science.” and “My career will never be stagnant; I’ll be able to keep learning new things.”). Intellectual curiosity was highly evident with these students and may



be a valuable consideration and resource for educators employing an adult learner model for teaching (e.g., self-directed learning modules, problem-based learning groups).



**Figure 2: Concept Map - What Makes a Good Doctor?**

The students in this sample anticipated that they would be assuming an active, pivotal role in patient care. Similar to the hub of a wheel, the students described wanting to be “the” agent of change and having the responsibility and authority to make decisions. Such a belief may pose challenges later when working on interdisciplinary teams, planning treatment with patients and their families, and navigating managed care.

In addition to the above intrinsic motivations, students expressed a strong desire to positively influence the lives of others and to form close connections and relationships with their patients. Students clearly saw medicine as an occupation that involves a close personal connection with patients. Medical school applicants have reported this desire to one author (RG) in application interviews as a reason to pursue a medical versus basic science career, despite a strong science interest. Of importance, this theme or value is critical for students to be able to resonate with the patient-centered model of care. Medical educators face an ongoing challenge to preserve students’ patient-centered values as they progress through a hidden curriculum in medical training that promotes detachment (Hafferty & Franks, 1994).

The students recognized that being a physician in a community was an esteemed role that also yielded status. Their descriptions were primarily related to the honor of such a role as opposed to the privileges such a role may allow, e.g. “It is an honor to have somebody trust their life to you.” In a society where social stratification occurs and where occupation is a chief determinant of status, being a “doctor” does afford influence in society (Weber, 1956; Zink et al., 2008), but it also affords the potential for positive influence in the context of the professional encounter (e.g. discussions of lifestyle modifications).



The students acknowledged being attracted to the financial prospects of being a doctor – its good money and steady employment, e.g. “I have never heard of an unemployed physician or doctor.” While students across the groups validated this sentiment, they stated that it was not a primary motivator for entering medicine. Because recent generations of young adults in the U.S. have been described as having multiple motivations for their career choices (e.g., economic and personal) (Bickel & Brown, 2005; Howell et al., 2005), the authors of this study had expected that income would have been a higher priority theme in students’ discussions. Higher income does appear to be a factor but not to the extent anticipated.

One final theme, *Early Experiences*, is important for administrators seeking to expand the physician workforce. The students described strong family and peer influences in their decision to pursue a career in medicine. Often, these influences were furthered by positive (and/or negative) experiences with physicians and the medical world. Critical shadowing or introductory experience with physicians made lasting impressions on students. Family and community influences on career decisions are well recognized in the literature (Fincher et al., 1992; Wright et al, 2004; Beauregard, 2007). The *Early Experiences* theme found in this study provides additional evidence that efforts should be made to promote medicine as a career option early in youths’ lives as well as in communities where medicine may not be considered an option. The Pre-Medical Access to Clinical Experience (PACE) program is an example of such an effort where high school and college students can interact with health professionals in a mentoring relationship (AMSA, 2009). To maximize the number of students selecting a specialty (e.g., primary care) that especially meets the needs of underserved populations and underserved areas, additional mentoring experiences should be offered and encouraged in these specialties.

What makes a good doctor? The students in this sample described a good doctor as a committed, smart, decisive leader who enthusiastically partners with patients to address health problems. These attributes are also to be grounded with good people skills.

The students emphasized humanism and patient centeredness as evidenced by the themes of *Good People Skills and Partners with Patients*. Because students at the inception of their training consider the physician-patient relationship to be an important aspect of being a doctor, educators working with medical students early in their training can focus less on championing the importance and relevance of patient centeredness and instead focus more on building students’ resilience in their beliefs about partnering with patients as they progress in their training (i.e., how to maintain the ideals of the profession when only technical aspects are prioritized) (Haidet & Stein, 2006).

The students consistently endorsed *Competence and Decisive Leadership* as important attributes of a good doctor. As noted in previous section on the theme of *Power and Influence* for why pursue a career in medicine, the students liked a physician who is willing and able to make definitive choices and to lead a team in executing a technical plan. Given that the students are at the beginning of their training, they expressed no concern for how *Decisive Leadership* may conflict with *Partners with Patients*. In conjunction with decisiveness, the students saw a good doctor as competent. Thorough knowledge and the ability to effectively complete necessary interventions were highly valued.

The last themes, *Enthusiasm* and *Going Beyond Call of Duty*, are related to professionalism. For the students, it was important that a doctor is excited to practice medicine. Simply meeting the needs of patients or conducting visits like a business were not seen as behaviors of a good doctor. A good doctor looks forward to practicing medicine and conveys that enthusiasm to patients which facilitates care and recovery. Related to this, the students recognized that good doctors often need to take extra steps and invest extra time to ensure patient needs are met.



## Limitations

The thematic findings in this focus group study are the self-perceptions of students of why they were attracted to medicine and what they thought a good doctor is. Explanations offered by individuals of what has influenced their decisions or what they value in others have some validity but must be considered in relation to other factors that may be beyond their awareness (e.g., behavioral contingencies, economic influences) or may be less socially desirable to share with others (e.g., financial security, bias toward predictable career). Educators and administrators can be informed about the findings in this study but should not make wholesale shifts in strategies based on these findings alone.

The themes were obtained from a sample of U.S. medical students at one medical school. As such, there may be unforeseen factors that affect the generalizability of the findings. Factors such as high in-state recruitment rate at this institution or racial diversity may impact findings.

To ensure anonymity in data collection, the student comments could not be linked to specific individual factors such as gender or race. As a result, no conclusions can be made as to whether the themes obtained in focus groups are representative of specific groups.

The focus group discussions were conducted within a required small discussion group and were facilitated by the group's faculty leaders. Although the consent process clearly stated participation was voluntary and not associated with group grade, some students may have believed otherwise and contributed to focus group discussions differently.

## Conclusion

Although we cannot ascertain changes in thematic reasons over time with this study's cross-sectional approach, our study supports the notion in the literature that multiple elements lead to students' decisions to pursue a profession in medicine. Working for the betterment of mankind represented only one of multiple themes for today's young physicians-to-be. These students also identified the life themes of money, status, and having the authority to be an agent of change. Forthrightness about these corollary and material reasons may be indicative of this generation. Additional notions of the influence of early experience provide support for increasing pipeline programs such as AMSA's Pre-Medical Access to Clinical Experience program for encouraging less privileged and more diverse students as well as other populations who are more likely to enter physician shortage areas and specialties. The appeal of learning and knowledge suggests that the intellectual appeal of medicine continues to be an enticement to the field. And the overarching notion of a career that will bring fulfillment suggests that today's physicians-in-training want a long-term, interesting, deeply rewarding profession. As educators, we can interpret the themes expressed by these beginning medical students as naive and overly idealistic, or we can employ them as impetus to ensure our planned and unplanned curriculum nurture rather than eclipse these beliefs about the medical profession.

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