

Journeying to the White Coat Ceremony: A description of the people, situations and experiences that inform student visions of the physician they hope to become

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ABSTRACT: Little is known about the experiences that influence entering medical students' internal concepts of themselves as future physicians. During orientation to medical school, students were asked to write stories in response to the cue, "Tell a story about a person or experience that inspired you to consider a career of service in medicine." Qualitative methodology was employed to analyze 190 student stories. Thematic analysis identified descriptive details about content and allowed comparison between the students' and School's expectations. Inspirational settings, contexts, and individuals were identified. Nine different inspirational events were described. Student and School expectations for the kinds of physicians they hoped to become were generally consistent. The study demonstrates that students do indeed bring to medical school visions of the kinds of physicians they hope to become. Linking that vision with medical school activities including the White Coat Ceremony provides a bridge between medical school and students' earlier lives, thus explicitly linking orientation to professional formation.

KEYWORDS: Medical schools, professional formation, narrative

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For many students, the orientation that marks their transition into medical school is not the first step along their path to being a health care professional. Most medical school applicants spend time shadowing physicians, are the family members of physicians, or have themselves been members of other health professions that interact with physicians.¹ Previous research has shown that, early in their medical school careers, medical students have an internal, albeit incomplete and fluctuating, model of themselves as future physicians.^{2,3} Student characteristics (sex, previous experience, the timing of career choice, etc) influence these internal models. It seems likely, therefore, that the formation of physician self-concept begins early and probably even before medical school itself. Yet, little is known about the incoming medical student's self-concept as a future physician.

This article describes an innovation in medical student orientation that allowed us to explore further our entering medical students' internal model of the physician they wished to become. The orientation activity, in which students wrote a story about their inspiration for medicine and then worked in groups to develop content for their White Coat Ceremony,⁴ was designed to support our students' prior concept of themselves as physicians and to enable them to consider that self-concept alongside the school's explicit educational goals for their development as

patient-centered physicians. The purposes for the research are as follows:

1. To identify the setting, people, and types of experience that influence medical students' visions of the kind of physician they hope to become.
2. To determine the congruence between entering medical students' aspirations and schools' expectations for the key competencies of the patient-centered physician.

Design and Method

The research was given Institutional Review Board approval on July 17, 2013. Student stories remained anonymous throughout all aspects of data collection and analysis. Staff typed each handwritten story prior to analysis to further ensure anonymity. We employed a single-case study design.⁵ The case itself was bounded in 2 ways: (a) it was conducted at a Midwestern School of Medicine in the United States and (b) it focused on the orientation program offered each year for the entering, first-year (M1) class. We collected data in fall 2013 and fall 2014. In both these years, students wrote stories about the personal experiences that inspired them to be physicians and, in light of the School's expectations for our graduates, developed statements that described the kinds of physicians they hoped to become.



Able to deliver effective patient-centered care: Our graduates are able to deliver care that improves the health of individuals and communities. Effective patient centered care: Respects individual perspectives, beliefs, values and cultures, Shares timely, complete, accurate and understandable information to inform health choices, Engages each person as he/she prefers, understanding that care choices belong to that individual, Partners in decision-making and the delivery of care. Our graduates are active participants in the creation of policies, programs and environments that promote care that is patient-centered, grounded in the best available evidence, and conserves limited resources. The care they provide is marked by compassion, empathy, cultural humility, and patient advocacy.

Honest with high ethical standards: Our graduates' behavior reflects honesty in relationships with patients, colleagues and the broader healthcare system. In practice our graduates understand and adhere to the basic principles of medical ethics, including justice, beneficence, non-maleficence, and respect for patient autonomy.

Knowledgeable in biomedical sciences, evidence-based practice, and societal and cultural issues: Our graduates possess a fund of knowledge that reflects current understanding in basic biomedical sciences, clinical disciplines, population health, and the social and behavioral sciences that impact patient care.

Critical thinker; problem solver: Problem solving and critical thinking engage three interdependent components: knowledge base, processing skills, and insight (metacognition). Building from a strong knowledge base, our graduates seek, synthesize and evaluate information through intellectual curiosity and by questioning the status quo.

Able to communicate with patients and others: Our graduates effectively communicate with patients, families and health care providers in order to establish professional, caring relationships and to facilitate the delivery of high quality, compassionate patient-centered health care.

Able to collaborate with patients and other members of health care team: Our graduates are skilled in the collaborative processes by which patients and inter-professional teams create and implement integrative care plans. They work together through mutual cooperation, respect, exchange of information and meaning, sharing resources, and enhancing each other's capacity for mutual benefits.

Committed to improving quality and safety: Our graduates work as members of the health care team striving for excellence in the quality of patient care and safety. They assess the results of current practice, analyze the literature to determine best practice, and take action to close any gaps. Our graduates recognize their own limitations and acknowledge their responsibilities in delivering safe and effective care. They problem solve and reconcile errors and near misses. They are committed to proactive systems improvement.

Committed to life-long learning and professional formation: Our graduates are aware that the profession of medicine is a lifelong endeavor. They are committed to reflection, self-assessment and self-improvement. They continually appraise and assimilate evidence to keep abreast of changes in best practice.

Figure 1. Key Characteristics of School of Medicine's expectations for its graduates.

The School

Medical schools define the expected outcomes of the educational experience. Our school publishes its mission, foundation values, and the *Key Characteristics* expected of graduates (see Figure 1).⁶ A total of 96 to 104 students are admitted annually and these students progress through the pre-clerkship and clinical curricula in 4 years. Our school uses a hybrid pre-clerkship curriculum, built around "Patient-Based Learning" in small groups and a parallel "Introduction to Patient Care" course where clinical skills are learned.⁷ The goals for orientation were modified 3 years ago to align better with our overall educational goals.

M1 orientation

Students participate in a 4-day orientation prior to the beginning of coursework. They attend sessions on a variety of topics, including the formal curriculum, student interest groups, required topics (infection control, confidentiality), and advising

and support services. The week finishes with the White Coat Ceremony,⁴ during which students are welcomed into the profession of medicine, recite an oath, and are "cloaked" with the white coat, the universal symbol of the medical profession. Beginning in 2013-2014 orientation moved beyond providing information about educational experiences and facilitating the formation of social and professional networks, to explicitly offering students an opportunity to reflect on experiences motivating them toward becoming patient-centered physicians and to celebrate their commitment to a career in the service of patients.

Journey to the White Coat Ceremony

A 3-phase activity, *Journey to the White Coat Ceremony* (see Table 1), was added to orientation to facilitate the development and selection by the class of a set of statements that communicated their aspirations about the kind of doctor they wished to become and that were read at the White Coat Ceremony (see Figure 2).

Table 1. Journey to the White Coat Orientation activities.

SESSION	DAY	FORMAT	INSTRUCTIONS TO STUDENTS	FOLLOW-UP ACTIVITY
1	Monday	Whole class (n=96 in 2013, n=104 in 2014)	Write a story in response to the prompt “tell a story about a person or experience that inspired you to consider a career of service in medicine.”	Facilitated discussion, including description of <i>Key Characteristics</i> ; some stories read aloud anonymously.
2	Wednesday	Groups of 8 plus a facilitator (12 groups in 2013; 13 in 2014)	Read your stories as a group. For each of the 8 <i>Key Characteristics</i> , choose a phrase from your stories to finish the sentence “I want to be the kind of physician who . . .”	Statements written on a poster (1 poster per group) for use in session 3. 96 (2013) and 104 (2014) statements generated.
3	Thursday	Whole class	Use dots provided to vote for 1 statement from each poster.	All statements printed in program insert; selected statements (n = 12; n = 13 in respective years) read at the Ceremony by the Senior Associate Dean for Education.

Members of the School of Medicine entering class of 2014-2015 want to be the physician who:

- goes above and beyond for my patients to ensure their needs are at the forefront of every medical decision I make.
- addresses patient problems without forgetting patients are more than the problems they have.
- is conscious of the limitations of medicine and myself as a physician.
- can self-reflect and commit to progressive learning.
- draws from the reservoir of patients' unique experiences and preferences in order to provide meaningful, individualized care.
- provides needed services for those without a voice.
- (whose) patient says to me “I’m glad I met you.”
- constantly raises the standard of care.
- remains enthusiastic and curious about the unknown as well as the mundane.
- changes lives, not just with my hands and knowledge, but with my words and compassion.
- demonstrates humility when working with both patients and colleagues to deliver the best possible care.
- recognizes I am treating a person rather than an illness and teaching my patients to become advocates for their own health and lives.
- humbly approaches opportunities with a willingness to learn.

Figure 2. Statements about the kind of physician students wanted to become selected by M1 students in 2014 to be read at their White Coat Ceremony.

Data Analysis

Through analysis, we sought to (a) identify aspects of students' experiences that informed their visions of the kinds of physicians they hoped to become and (b) identify qualities of students' aspirations so they could be compared with the school's expectations.

We used a 2-tiered approach to data analysis to address the dependability and trustworthiness of our methods. In Tier 1, we followed the recommendations by Hanson et al⁸ about multiple passes in data analysis. *Excel* and *QDA Miner* were used in the first coding passes, whereas no coding software was used in subsequent passes. Trustworthiness was also achieved through triangulation by having 4 different individuals independently analyzing the data and including data from 2 different classes of medical students (ie, 2 sources of data).

Tier 1

Experiences—coding pass 1. Four individuals were involved in data analysis. Initially, stories were coded separately for each year (2013 and 2014) by 2 individuals not involved in the present research but supervised by one of the researchers (M.D.W-G.). Coding definitions from 2013 were used to

code 2014 stories but were refined; additional codes were also allowed to emerge if necessary.

Experiences—coding pass 2. Stories of both years were then combined into one data set for purposes of analysis and the development of a common coding scheme. We did this because the stories of the 2 classes were substantially alike and so were treated as one set of stories in *Pass 2*. One researcher (J.F.D.) reviewed all stories again and using open coding developed an initial code list for the entire set of stories. His analysis was informed by coding schemes developed for the separate analysis of 2013 and 2014 stories. This revised code list was examined by a second researcher (M.D.W-G.) by independently coding 12.1% of the stories. The level of agreement between the 2 coders was 74%. Coding was discussed, leading to the expansion and renaming of 1 code; consensus was reached for remaining codes.

Experiences—coding pass 3. Researcher J.F.D. returned to stories for a third time to analyze the data once again using the expanded code list developed in *Pass 2*. Following his reanalysis of data, researcher M.D.W-G. analyzed 20% of the stories, achieving an 84% level of agreement. Coding was

discussed by the 2 coders again, resulting in a minor revision in 1 code and in consensus regarding coding.

Qualities. A comparative analysis was completed by the same 2 researchers (J.F.D. and M.D.W-G.) to address the study's second purpose of determining congruence with school's expectations. Qualities mentioned in student stories were compared against terminology used to define and describe the *Key Characteristics* and were sorted into the appropriate key characteristic. The 2 team members reached complete (100%) agreement in their sorting of qualities into the *Key Characteristics*.

Tier 2

Codes and themes were shared with select members of the research team who participated as facilitators in the *Journey to the White Coat* activity and were therefore exposed to at least 30% of all student stories. We did this to determine whether codes and themes rang true to what they had heard from medical students in discussion of their stories. The assessment of others served as triangulation of the coding and thematic analysis conducted primarily by 2 of the researchers.

In all our analysis, we employed a contextual approach to data analysis. Codes and themes were developed directly from the data rather than by relying on concepts from the literature. Thus, an inductive approach linking the data to themselves was used,⁷ rather than a theoretical analysis. A semantic approach was taken: explicit meanings in the data were identified as codes, and then, starting with a description of the data, efforts shifted to summarizing and interpreting broader themes.^{7,9}

Findings

In total, 200 students completed the educational activity and 190 (95%) gave permission for their stories to be used in research. In 2013, participating students (N=91) wrote an average of 122 words (53-184). In 2014, when provided more time to write, participating students (N=99) wrote an average of 158 words (58-266).

Thematic analysis identified 5 themes in student stories: (a) *Inspirational Setting* or the physical location where the inspirational event occurred, (b) *Context* or the social environment/milieu within which the inspirational event occurred, (c) *Inspirational Event/Experience* or the essence of what was happening in the experience described by students, (d) *Inspirational Person(s)* or the person(s) who the students indicated had inspired them, and (e) *Perspective* or whether the student witnessed the event described or was an actor (was directly engaged). In addition to these elements, we also coded for *Inspirational Qualities* or the traits, attributes, and behaviors students associated either with inspirational persons or with their own aspirations for the kind of physician they hoped to become. Data are reported in aggregate as we observed little difference in findings across the 2 years.

Inspirational settings

We identified 5 settings in student stories: medical facilities (n=106, 55.8%) including hospitals, clinics, nursing homes, and hospices; the home of students (n=31, 16.3%); school at any level (n=10, 5.3%); social service agencies (n=9, 4.7%); and camps (n=6, 3.2%). Camps were usually for individuals with a chronic illness or disability. Ten students mentioned a variety of locations that were labeled "Other." These "Other" locations included Mexico, parks, taverns, refugee camps, rural areas, accident site, battlefield, ambulance, scientific laboratory, and a daycare facility. Eighteen students (9.5%) did not identify a specific inspirational setting.

Context

Students mentioned 7 specific social contexts in which their inspirational events occurred. These, in order of mention, were as follows:

1. *Families* (n=53, 27.9%)—the student was a member of a nuclear or extended family.
2. *Volunteering* (n=34, 17.9%)—the student donated her or his time in service to an agency, health care facility, or group of people.
3. *Employment* (n=33, 17.4%)—the student worked for pay.
4. *Shadowing* (n=26, 13.7%)—the student followed and observed health care or other professionals do their work.
5. *Self-as-patient* (n=20, 10.5%)—the student was a patient due to injury, illness, or disability and had a treatment relationship with a health care provider.
6. *Education* (n=7, 3.7%)—the student interacted with other(s) for the primary purpose of learning.
7. *Friends or acquaintances* (n=6, 3.2%)—the student was in a social situation with individuals who were not family members.

Four students (2.1%) mentioned other contexts that were coded as "Other." These included watching a television commercial and donating stem cells. About 7 or 3.7% of students did not identify a specific social context.

Inspirational events

The Inspirational Events theme focused on what was happening in student stories that inspired them to choose a career in medicine. Students mentioned 9 types of events in which they were either actors or witnesses. Representative quotations for each inspirational event are found in Table 2.

Giving (n=46, 24.2%) was mentioned twice as often as any other event. "Giving" events were characterized by a person (either the student or another) giving another person hope, peace, succor, and knowledge/information. *Giving* also included easing another's fears and concerns and being selfless. In the words of one student, "time stops for the [other person]."

Table 2. Categories of Inspirational Event and representative quotations.

EVENT	REPRESENTATIVE QUOTATION
<i>Giving</i>	A young girl came into the ophthalmology clinic to see the [physician] I was shadowing. They joked and laughed and [the doctor] asked her about summer camp and school. This girl clearly loved and respected her doctor as a care giver and friend. Yet I soon found out that she was in foster care and almost completely blind. But [this doctor] took this hard situation and gave this girl hope and peace in her disease. She was a trusted confidant and steady support.
<i>Development</i>	As I was finishing up my graduate research, I really noticed the disconnect between what I was doing at the bench and any application to real-life situations. This really hit home during a thesis committee meeting where all MDs on my committee asked me clinical questions about the disease I was studying and I had no idea what the answers were or how to find out.
<i>Bettering</i>	I had a pretty good idea I wanted to be a physician in the beginning of high school. At this point it was only driven by a desire to be challenged and personal experiences within the healthcare field. Once I began shadowing, it solidified that this was what I really wanted to do. Seeing how big of an impact physicians have on their patients and the relationship that is formed is now what I look forward to most as a physician.
<i>Suffering</i>	I learned of his struggle with heroin and depression (and being) on and off the streets. He currently resided in a transitional housing unit near the clinic and because of the work done largely by the physicians and medical staff . . . he had been clean for a while and was coping with his depression. [His] struggle reminded me of the complexity and dignity in medicine.
<i>Underserved</i>	We went to a Haitian refugee camp . . . The conditions in the camp were unlike anything I had seen before. No shoes, no bathrooms, and no clean water. Obviously there were no doctors in the community . . . and there were a lot of people with basic medical problems. A group of doctors . . . took 2 weeks off to travel to the Dominican Republic and help people. It was amazing . . . to see how much of a difference these doctors made in the lives of the people at the refugee camp.
<i>Happy Warrior</i>	This 28 year-old was full of optimism, determination . . . his hard work every day, after having to learn to bear weight/walk again, was incredible. His words of wisdom encouraged me as I saw him again successfully recover. That passion has been forever instilled and is how I feel about our careers. As [he] would say, “grind on.”
<i>Bonding</i>	The physician had tears in her eyes, and so did I. In this precious moment, I was struck by the intensity and overwhelming beauty of the human connection.
<i>Valuing</i>	One day I saw [Dr. X] treat a patient who was a character: cursed like a sailor, made fun of my shoes and my choice of shadowing a doctor, incessantly questioned the doctor relentlessly. The one thing I remember him say at the end was, “I got to say [Dr. X] is weird, but he is good.” That sounded at that point like the biggest compliment anyone could ever receive.
<i>Technical Skill</i>	My mother showed me this strange rash she had on her legs . . . The emergency department called it “strange red dots.” Finally a physician that recognized the rash diagnosed [it] as a purpura and biopsy showed vasculitis, a rare autoimmune disease that destroys . . . capillaries . . . My mom is cured because one physician was able to recognize a rare disease and properly treat it after collaborating with a team of physicians

Development (n=24, 12.6%) described events that fostered students’ personal and professional learning and development. In these events, students realized gaps in their knowledge, expressed helplessness in their abilities, described their own reflection and learning, realized they lacked confidence, and took note of what they had learned from role modeling.

Bettering events were those in which students either observed or interacted with a person whose lives had been affected by a health care provider in positive ways. *Bettering* went beyond treatment to include improving people’s lives in more holistic (including emotional) fashion. Twenty-three (12.1%) student stories described *Bettering* events, and many of these events directly addressed the impact physicians have on their patients’ lives.

Students described the *Suffering* of others in 20 (10.5%) stories. In these events, students described individuals who were struggling, in pain, afraid, fragile, or facing imminent death. Many students whose stories were about suffering commented about how they had chosen medicine to relieve the suffering of others.

In *Underserved* (n=19, 10%), students spoke of helping marginalized, ignored, and mistreated populations or observing others doing so. Most of these events had a social justice undertone to them. As one student put it, these events addressed “The soul’s need for hope.” Another student noted that her passion in medicine was reinforced during a service project to the Yucatán Peninsula where he or she witnessed sickness and lack of medical care, electricity, or running water. “We finished construction projects for them but it made me realize that I wanted to help people feel better and be able to live their lives as healthy individuals.”

Although suffering was an event that influenced students, we labeled a contrasting event *The Happy Warrior* to capture experiences that were characterized by injured or ill persons (usually with a chronic or life-threatening illness) being optimistic, positive, cheerful, and resilient in the face of adversity. This category was seen in 16 (8.4%) stories. These events were characterized by interactions or observations of people who had “spunk.”

Table 3. Comparison of student mentioned qualities with School of Medicine 8 Key Characteristics.

KEY CHARACTERISTICS ^a	QUALITIES REFLECTED IN STORIES	NO. OF MENTIONS
Patient-Centered Care/Relationship with Patients	Impact/improve people's lives, serve others, patient-centered care, celebrator of life, connection with patients, gives hope, comforting, partner in patient care, respectful, supporting, caring	157
Able to Communicate with Patients and Others	Communicator, educator, listener	41
Knowledgeable	Competent, scientist, resource of knowledge and treatment	31
Committed to Lifelong Learning and Professional Formation	Personal growth, learner, disciplined, enables hands-on experience	27
Honest with High Ethical Standards	Ethical, responsible, honest, reaches out to those who need help, champion for the weak, medicine is a lifelong commitment	22
Able to Collaborate with Patients and Other Members of the Health Care Team	Collaborator, collective experiences and knowledge are key, medicine is a group effort	18
Problem-Solver, Critical Thinker	Tackles challenges, decisive, working through the unknown, courage to solve problems of health care	11
Committed to Improving Quality and Safety	Providing excellent care makes a great physician, driven by desire to deliver quality care	10
Total		317

Headrick et al⁶ provide additional detail about the 8 Key Characteristics and how they were developed.

Three other specific events were found in a little more than 13% of the stories. These were *Bonding* (n = 12, 6.3%), *Valuing* (n = 8, 4.2%), and *Technical Skill* (n = 5, 2.6%). In *Bonding* events, either the student or another person developed deep human connections with others. *Valuing* events were those in which others expressed or demonstrated the value of health care providers. Actors used terms such as thankful, grateful, appreciate, and good to express the value their physician had for them. *Technical Skill* events were those in which the focus was on the technical knowledge and skill of the health care provider. Terms such as technical expert, healing, and saves lives were central to these events.

Seven stories (3.7%) described a variety of events we labeled as *Other*. These included events characterized by demonstration of proper professional behavior, poor doctoring, storytelling, and individuals distrusting health care. Ten students (5.3%) did not describe a specific inspirational event.

Inspirational people

Students mentioned 2 groups of people most frequently as being inspirational—*Patients* (n = 75, 39.5%) and *Physicians* (n = 69, 36.3%). A quarter of the 75 patients mentioned (n = 19) were family members. Likewise, 17% (n = 12) of physicians mentioned were members of students' families. Students mentioned other health care providers in 10 stories (5.3%), 4 of whom were also family members. In total, students attributed their inspiration to become physicians to family members in more than 18% of stories. *Clients* (n = 15, 7.9%) were inspirational people with whom students worked or had observed in *Social Service Agencies* and *Camps*. Most were described as having chronic diseases or disabilities. We chose not to label them

as *Patients* because their participation at *Camp* or at a *Social Service Agency* was predicated on motives other than an immediate need for medical treatment. Nine students (4.7%) mentioned other inspirational persons including teachers, researchers, and even a television commercial. Another 12 students (6.3%) did not specifically identify an inspirational person in what they wrote.

Perspective

Stories differed in the type of the writer's involvement. In 84 (44.2%) stories, students were *Witnesses* to events described. They witnessed the illness of a family member, the work of a health professional, or they relayed stories told by others. In most of the stories (n = 97, 51.1%), students were personally engaged in events and so were labeled *Actors*. They had actual roles to play in events through the *Social Contexts* in which they were engaged, such as being a patient, an employee, a volunteer, or a learner. In 9 (4.7%) stories, students provided too little detail for us to assess type of involvement.

Inspirational qualities

Students made 333 mentions of physician qualities in their stories, for an average of 1.75 mentions per story. Examples as compared against the adjectives used to define the *Key Characteristics* are illustrated in Table 3. Sixteen inspirational qualities could not be attached to any key characteristic. The results demonstrate that students' stories did touch on each of the *Key Characteristics*, with *Patient-Centered Care* and *Communications* garnering the largest focus, and *Quality and Safety* the least emphasis.

Our analysis demonstrates that medical students, at the very beginning of medical school, are able to describe powerful influences that have affected their vision of the physician they hope to become. Students described profound interpersonal experiences, incorporating both action and affect. The classes selected statements for their White Coat Ceremonies that highlighted the personal qualities and skills they hoped to possess as future physicians. We believe that the realization that entering medical students are far from naïve to the profession of medicine should inform how medical schools organize orientation, both regarding its content and regarding the processes used to facilitate learning.^{10,11} Recent literature suggests that, rather than focusing on the introduction of a new concept (the physician), orientation practices should consider the contextual nature of the transition to professional education¹² and explore the student's concept of "physicianing." Rather than beginning the journey to becoming a physician, orientation should support the *continuation* of the journey toward integrating personal and professional identities that begins in preprofessional health education.^{10,13} Our orientation, as described by others,¹⁴ allows time for reflection, as well as an opportunity for a particular student's experience to be recognized and appreciated by peers and the School. As such, it represents a milestone on a student's journey, acknowledges that the journey is in progress, and sets the foundation for future reflections, both private and public.

Three key characteristics were mentioned very few times. These were collaboration with patients and the health care team, being a critical thinker/problem-solver, and being committed to improving quality and safety. We are unsure why this is the case. We have speculated that this may indicate a lack of previous experience, particularly with respect to the commitment to quality and safety. We also wonder whether beginning



medical students are more focused on the individual, rather than the broader “system” of health care. Whatever the reason for this gap, it does suggest that schools that value these characteristics should provide educational experiences focused on their development, as we have done.

A “word cloud” developed from each class’ statements about what kind of physician they want to be is the opening page of the student online portfolio (see Figure 3). Because students must access schedules, grades, and give and receive feedback through the portfolio, placing the word cloud on the opening page provides a continual reminder to students of the kind of physicians they wish to become. Further “touch points” are provided through required reflection exercises each year and in our longitudinal professional development curriculum, COMPASS (Contemplating Medicine, Patients, Self and Society). After our Patient-Centered Objective Structured

Clinical Examination,¹⁷ students are asked to self-assess their abilities to deliver patient-centered care. Students specifically revisit the statements developed in orientation 3 additional times throughout their time in medical school to reflect on progress toward achieving their own and the School's goals for them as future physicians.

Our work has elucidated questions worthy of further study. For example, to what extent does a student's commitment to a vision for themselves as a future physician and the perceived support of the institution for that vision influence the erosion of altruism? In addition, the White Coat Ceremony gave our faculty the opportunity to hear the students' vision for their class. A number of our faculty commented, with apparent surprise, that the list of statements chosen by both classes included commitment to personal relationships with patients as well as to accessible health care and social justice. Is the well-described growth in cynicism about medicine experienced by medical students paralleled by faculty cynicism about students? Recent research has also begun to assess the benefits medical school faculty accrue from facilitating the learning of students, especially in small group courses dedicated to fostering student professional formation.^{18–20} Further studies should consider to what extent interventions to address medical student cynicism may help decrease faculty cynicism about students and help guard against erosion of altruism among the faculty.

Research into the functions of medical school orientation highlights the perceived central role of the White Coat Ceremony as an “ideal, and to an extent, abstract representation of the core values and philosophy of medical practice” (p. 3).¹⁰ The development of the set of activities we call *Journey to the White Coat* explicitly links the content of the White Coat Ceremony to the previous lives of the student participants and to their future development. In its revised version, our ceremony sets the tone for a culture in which students are supported in actively thinking about their inspiration toward medicine and their vision for their future. It places the interaction with patients in a central position at the outset of medical education. The program has become the first of a series of activities across the 4 years of medical education that continue to draw attention explicitly to our students' active engagement in the development of their own professional identity in the context of their own aspirations and the aspirations of our School. We hope to continue to remind each class of their own vision for themselves at key transition points through medical school.

Limitations

Our work took place at one Midwestern medical school.

Conclusions

Our study achieved its goal of identifying and describing the goals of the students and relating them to the goals of our educational programs. The most important influencers on our new medical students were physicians, particularly seeing them in the course of physician-patient interactions, and patients. This finding confirms, yet again, the importance of experience in the

health care setting and of role modeling in the development of young doctors. We hope other schools will consider incorporating similar experiences in their own orientation activities, as well as providing medical students with opportunities to continue to connect with their personal goals at other points during their training. Exercises similar to these may also help selection committees make informed decisions about applicants and assist them in choosing students who are a good fit for a particular school.

Author Contributions

All authors contributed to the overall article, reviewed relevant literature, and agreed to the content of the final version. JFD and MDW-G provided coding and thematic analysis of the data, and other authors contributed to the triangulation of the results.

REFERENCES

1. Association of American Medical Colleges. 10 things to do to prepare for applying to medical school. <https://students-residents.aamc.org/applying-medical-school/article/10-things-do-prepare-applying-medical-school/>.
2. Niemi PM, Vainiomak PT, Murto-Kangas M. My future as a physician—professional representations and their background among first-day medical students. *Teach Learn Med*. 2003;15:31–39.
3. Draper C, Louw G. What is medicine and what is a doctor? Medical students' perceptions and expectations of their academic and professional career. *Med Teach*. 2007;29:e100–107.
4. Arnold P. *White Coat Ceremony*. Englewood Cliffs, NJ: Gold Foundation; 2013. <http://humanism-in-medicine.org/programs/rituals/white-coat-ceremony/>.
5. Stake RE. *The Art of Case Study Research*. Thousand Oaks, CA: SAGE; 1995.
6. Headrick LA, Hoffman KG, Brown RM, Webb WD, Higbee DK. University of Missouri School of Medicine in Columbia. *Acad Med*. 2010;85:S310–S315.
7. Patton MQ. *Qualitative Evaluation and Research Methods*. Thousand Oaks, CA: SAGE; 2002.
8. Hanson JL, Balmer DF, Giardino A. Qualitative research methods for medical educators. *Acad Pediatr*. 2011;11:375–386.
9. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3:77–101.
10. Ellaway RH, Cooper G, Al-Idrissi T, Dubé T, Graves L. Discourses of student orientation to medical education programs. *Med Educ Online*. 2014;19:23714.
11. Karnieli-Miller O, Frankel RM, Inui TS. Cloak of compassion, or evidence of elitism? An empirical analysis of white coat ceremonies. *Med Educ*. 2013;47:97–108.
12. Dall'Alba G, Sandberg J. Unveiling professional development: a critical review of stage models. *Rev Educ Res*. 2006;76:383–412.
13. Weiss T, Swede MJ. Transforming preprofessional health education through relationship-centered care and narrative medicine [published online ahead of print May 4, 2016]. *Teach Learn Med*. doi:10.1080/10401334.2016.1159566.
14. Fresa-Dillon KL, Cuzzolino RG, Veit KJ. Professionalism: orientation exercises for incoming osteopathic medical students and developing class vision statements. *J Am Osteopath Assoc*. 2004;104:251–259.
15. Wilson I, Cowin LS, Johnson M, Young H. Professional identity in medical students: pedagogical challenges to medical education. *Teach Learn Med*. 2013;25:369–373.
16. Mader EM, Roseamelia C, Morley CP. The temporal decline of idealism in two cohorts of medical students at one institution. *BMC Med Educ*. 2014;14:58.
17. Hoffman K, Griggs M, Donaldson J, Rentfro A, Lu WH. Through patient eyes: can third-year medical students deliver the care patients expect? *Med Teach*. 2015;37:684–692.
18. Kumagai AK, White CB, Ross PT, Perlman RL, Fantone JC. The impact of facilitation of small-group discussions of psychosocial topics in medicine on faculty growth and development. *Acad Med*. 2008;83:976–981.
19. Whiting E, Wear D, Aultman JM, Zupp L. Teaching softly in hard environments: meanings of small group reflective teaching to clinical faculty. *J Learn Arts*. 2012;8:1. <http://escholarship.org/uc/item/5381g6c9>.
20. Rabow MW, Newman M, Remen RN. Teaching in relationship: the impact on faculty of teaching “the Healer's Art.” *Teach Learn Med*. 2014;26:121–128.
21. Hoffman KG, Hosokawa MC, Blake R, Headrick L, Johnson G. Problem-based learning outcomes: ten years of experience at University of Missouri-Columbia School of Medicine. *Acad Med*. 2006;81:617–625.