



The Suffering Medical Students Attribute to Their Undergraduate Medical Education

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BACKGROUND AND OBJECTIVES: The purpose of this study was to explore medical student perceptions of their medical school teaching and learning about human suffering and their recommendations for teaching about suffering. During data collection, students also shared their perceptions of personal suffering which they attributed to their medical education.

METHODS: In April through May 2015, we conducted focus groups involving a total of 51 students representing all four classes at two US medical schools.

RESULTS: Some students in all groups reported suffering that they attributed to the experience of medical school and the culture of medical education. Sources of suffering included isolation, stoicism, confusion about personal/professional identity and role as medical students, and witnessing suffering in patients, families, and colleagues. Students described emotional distress, dehumanization, powerlessness, and disillusionment as negative consequences of their suffering. Reported means of adaptation to their suffering included distraction, emotional suppression, compartmentalization, and reframing. Students also identified activities that promoted well-being: small-group discussions, protected opportunities for venting, and guidance for sharing their experiences. They recommended integration of these strategies longitudinally throughout medical training.

CONCLUSIONS: Students reported suffering related to their medical education. They identified common causes of suffering, harmful consequences, and adaptive and supportive approaches to limit and/or ameliorate suffering. Understanding student suffering can complement efforts to reduce medical student distress and support well-being.

(Fam Med. 2018;50(4):296-9.)

doi: 10.22454/FamMed.2018.116755

Medical training stresses medical students, who negotiate a rigorous curriculum while struggling with the emotional demands of clinical care.¹⁻⁴ Students enter medical school with better mental health than nonmedical peers but graduate with greater levels of depression and burnout, indicating medical education threatens

student well-being.⁵ Little is known, however, about whether students perceive themselves to suffer as a result of their medical training.

Suffering is “an aversive emotional experience characterized by the perception of personal distress that is generated by adverse factors undermining the quality of life”⁶ that arises when events are perceived to

threaten the integrity of the self.⁷ As such, suffering involves “dissolution, alienation, loss of personal identity and/or a sense of meaninglessness”⁸ and is an existential experience with subjective meanings and spiritual dimensions for the sufferer.^{9,10}

While exploring medical student perceptions of their education about suffering,¹¹ some participants reported personal suffering they attributed to their medical education. What they expressed differed from anxiety, depression, and burnout, as our students rarely used those terms. Rather, their suffering involved the culture of medical education and the personal transformation to physicianhood. This report summarizes these perceptions of student suffering and the activities that provided relief.

Methods

In April through May 2015, we conducted focus groups with students from each year of study at the University of Washington School of Medicine (UWSOM) and Penn State College of Medicine (PSCOM). We emailed invitations to all registered

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students to “participate in a research study to better understand medical student education about human suffering.” Participants gave informed consent and received a \$10 gift card. We enrolled volunteers to fill an optimal size of 4 to 10 per group.¹² Each school’s institutional review board approved our study protocol.

The authors facilitated groups at their respective institutions. We analyzed verbatim discussion transcripts using standard qualitative procedures, including an iterative, dialectical approach to coding, a constant comparison method,¹³ and an anonymous member check survey. We reported our methods in detail elsewhere.¹¹

We analyzed student reports concerning personal suffering they attributed to medical education, including comments on the member check survey, using procedures similar to our initial analysis and informed by literature about suffering.

Results

Fifty-one students participated in eight groups (Table 1). Women were disproportionately represented relative to medical school demographics. Students described aspects of their medical education contributing to their suffering, the resultant consequences, their efforts to adapt, and their perceptions of what helped limit or ameliorate their suffering (Table 2).

Sources of Suffering

The demands of medical school isolated students from meaningful connections to family and friends. They

perceived that the culture of medical education encouraged stoicism, particularly in the clinical years, and noted that their roles were often ill-defined with unclear expectations. Students suffered when their professional identity became confused with their personal identity, and work performance was equated to personal worth. Witnessing suffering in patients, families and colleagues wrought suffering among students.

Consequences of Suffering

These educational stressors created considerable emotional distress. Some participants worried about losing touch with their humanity and altruism, and they felt powerless to ameliorate the suffering they witnessed. Observing suffering that was inadequately addressed left some disillusioned with medicine.

Adaptive Mechanisms

Students used distractions to divert their attention from the pressures of medical training. Some suppressed and compartmentalized their emotions to avoid discomfort. Others reframed their experiences to gain acceptance of and find meaning in their suffering.

Supportive Mechanisms

Students valued the support they received from preclinical small group sessions and self-care experiences and lamented that these waned as clinical exposure to suffering increased. They described the value of safely venting their distress and desired guidance for how to share their uncertainties, frustrations, and fears.

Discussion

The struggles our students described embody the classic themes associated with suffering—isolation, hopelessness, helplessness, and loss,¹⁴ suggesting threats to their personal integrity congruent with the literature about suffering.^{7,8,15-17} Medical training tested our participants’ cognitive and affective capacities while isolating them from sources of support. Clinical training challenged their concepts of self and beliefs about medicine,¹⁸ triggering existential angst. Students who reported disillusionment with medicine may have implied a spiritual dimension to their suffering, but none explicitly mentioned this domain.

The adaptive mechanisms our students described align with Gross’ conceptions of emotional regulation,¹⁹ strategies by which individuals seek to control emotions. Our participants described regulatory processes of attention deployment (distraction), response modulation (suppression/compartmentalization), and cognitive change (reframing).⁴ Of these, reframing may be most beneficial, as suffering can be endured and alleviated through acceptance and investiture with meaning.^{20,21}

Reframing—changing the appraisal of a situation—facilitates acceptance of and finding meaning in experience, both of which have been shown to reduce student distress. Teaching medical students to nonjudgmentally observe their experience through mindfulness meditation reduced their stress.^{22,23} Workshops developing personal insight and confronting suffering

Table 1: Focus Group Demographics

Cohort	University of Washington School of Medicine			Penn State College of Medicine			Totals
	Students	Female	Male	Students	Female	Male	
Focus groups	28*	22 (78.6%)	6 (21.4%)	23 ¹	17 (73.9%)	6 (26.1%)	51
Medical school	891	479 (53.8%)	412 (46.2%)	585	289 (49.4%)	296 (50.6%)	1,476

* N=3.1% of UWSOM student body

¹ N=3.9% of PSCOM student body

Table 2: Domains and Themes of Focus Group Discussions

Domain	Theme	Illustrative Quotes
Sources of suffering	Isolation	"... it's taken a toll... not being able to spend as much time with your family or friends..." (UWSOM MS1)
	Stoicism	"... you can't be weak as a physician." (PSCOM MS2)
	Role confusion	"Our role is very much undefined and varies from setting to setting..." (UWSOM MS4)
	Identity confusion	"... in medicine, your career is you... if you're a bad doctor... you're a bad person..." (UWSOM MS4)
	Witnessing suffering	"... I worry that I'm going to feel too much pain from other people." (PSCOM MS2)
Consequences of suffering	Emotional distress	"... that emotional distress of just feeling 'I can't handle all of the pain that I'm seeing every day.'" (PSCOM MS3)
	Dehumanization	"... we are just too tired or too stressed out to really show empathy." (PSCOM MS1)
	Powerlessness	"I've seen doctors that I hope never ask about some of those suffering questions, because they deal with them so poorly... You rip off a scab and then you don't do anything about it." (UWSOM MS3)
	Disillusionment	"... cynical is maybe strong, but I think jaded is a good word for me..." (PSCOM MS4)
Adaptive mechanisms	Distraction	"... what I figured out fairly early on was, when I was having those lows, I needed to engage in something besides medicine." (UWSOM MS4)
	Suppression	"... we want to put that face on that it is going OK... we're really good in emergencies or scary situations... because we just keep going and we keep going and we keep going." (PSCOM MS1)
	Compartmentalization	"... the one thing that I know I do... is to compartmentalize everything..." (PSCOM MS4)
	Reframing	"... I've come to accept that my life is going to be full of a heightened level of stress relative to most of the people around me." (PSCOM MS2) "... suffering happens to everyone, so when I suffer... it will help me understand my patients' suffering..." (UWSOM MS4)
Supportive mechanisms	Small groups	"... having a group where you can talk about things like this would be amazing." (UWSOM MS3)
	Protected venting	"... it would be really helpful... to have more involvement in talking... with the attendings..." (PSCOM MS3)
	Guidance for sharing	"I had a mentor one time that was telling us how to... tell people our story... I saw a patient today and it made me feel this way'... I wind up reflecting... 'What is my story in this?'" (UWSOM MS2)

helped students discover deeper meaning in medicine.²⁴ That student distress is relieved through practices known to alleviate suffering suggests that suffering may be a discrete student stressor.

As for supportive mechanisms that helped decrease suffering, students favor sharing emotions with peers undergoing similar experiences.²⁵ Extending small groups and mentoring throughout clinical training

would sustain preclinical initiatives and provide a forum for guiding students through the nuances of managing suffering. E-conferencing could help students in decentralized training sites debrief stressful experiences

and receive support similar to what practicing physicians have experienced in Balint groups.²⁶ Reflective activities that increased student insight regarding themselves and others could generate constructive meaning to their suffering.^{24,27}

Our data documents that some medical students perceive they suffer as a result of their medical education. Our participants were a small percentage of students from two medical schools. Being volunteers, they likely had special interests in suffering. Their perceptions may not represent their classmates or other medical students. Their comments may reflect recall bias, and we cannot confirm their reports.

Further research is needed to determine the relationship between medical student emotions and suffering. Mixed-methods studies using qualitative methods to explore student suffering, standardized measures of anxiety, depression and burnout, and quantitative measures of prevalence and associated factors would be valuable.

We believe some degree of suffering is inherent to the personal and professional development of future physicians and may provide opportunities to help them become better doctors. Guiding students in processing their suffering, providing supportive networks to share their perceptions and feelings, and helping them to find positive meaning in their experiences may help to limit or alleviate their suffering. In the process, students may find deeper meaning in their work and be better prepared for patient care.

ACKNOWLEDGMENTS: This research was supported by a grant from the Center for Leadership and Innovation in Medical Education (CLIME) at the University of Washington School of Medicine, Seattle, WA.

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