*Original Article*

# Religion, Spirituality, and the Hidden Curriculum: Medical Student and Faculty Reflections

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## Abstract

**Context.** Religion and spirituality play an important role in physicians' medical practice, but little research has examined their influence within the socialization of medical trainees and the hidden curriculum.

**Objectives.** The objective is to explore the role of religion and spirituality as they intersect with aspects of medicine's hidden curriculum.

**Methods.** Semiscripted, one-on-one interviews and focus groups ($n = 33$ respondents) were conducted to assess Harvard Medical School student and faculty experiences of religion/spirituality and the professionalization process during medical training. Using grounded theory, theme extraction was performed with interdisciplinary input (medicine, sociology, and theology), yielding a high inter-rater reliability score (kappa = 0.75).

**Results.** Three domains emerged where religion and spirituality appear as a factor in medical training. First, religion/spirituality may present unique challenges and benefits in relation to the hidden curriculum. Religious/spiritual respondents more often reported to struggle with issues of personal identity, increased self-doubt, and perceived medical knowledge inadequacy. However, religious/spiritual participants less often described relationship conflicts within the medical team, work-life imbalance, and emotional stress arising from patient suffering. Second, religion/spirituality may influence coping strategies during encounters with patient suffering. Religious/spiritual trainees described using prayer, faith, and compassion as means for coping whereas nonreligious/nonspiritual trainees discussed compartmentalization and emotional repression. Third, levels of religion/spirituality appear to fluctuate in relation to medical training, with many trainees experiencing an increase in religiousness/spirituality during training.

**Conclusion.** Religion/spirituality has a largely unstudied but possibly influential role in medical student socialization. Future study is needed to characterize its function within the hidden curriculum. J Pain Symptom Manage 2015;■:■−■.


***Key Words***

*Professionalism, hidden curriculum, religion, spirituality, medical education*

## Introduction

Medical training acts as a "secondary socialization"[1(p 138ff.)] in which trainees internalize, through habitualization, the necessary institutional practices, knowledge, and viewpoints that make physicians spontaneously act with little reflection qua physician. This process is necessary to form physicians,[2] but some elements of the hidden curriculum (HC) lead to a

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socialization that can undermine professional ideals.[3] We refer to the HC as the process of formation, largely based in apprenticeship, which instills behaviors, attitudes, and values among trainees in tension with the ideals of the medical profession.[3–8] Research has long identified a correlation between the rigors of medical training and increased physician cynicism and lack of humanitarianism.[9–11] Medical professional burnout is correlated with depersonalization and exhaustion.[12–15] These processes are associated with thoughts of leaving medicine,[16] decreased empathy,[8] burnout,[17,18] depression, and suicidal ideation.[19–23]

The rupture in medical training between ideal and actual socialization justifies calls for greater professionalism including clarification of standards and means of assessment.[24–26] However, it is unclear if medical education alone can reverse the toxic elements of socialization because the HC is generated by deep social structures, both internal and external to the medical profession. Internal social structures include poor behavior modeling that devalues and objectifies patients and rigid hierarchical relationships that limit correction of abuses of power. External social structures shaping physician practice include market forces, a growing bureaucratization of the clinician-patient relationship, and the technological imperative.[27]

Because deep structures embedded within the HC are not easily altered, local and incremental approaches that include partners operating inside[28] and outside of medicine may be needed to foster virtues and pass on to trainees the heart of medicine.[7] One important approach has attempted to increase attention to spirituality as a critical resource within medical education.[28–32] Another promising approach suggested by Kinghorn et al.[5,6,33] is to ground the ideals and virtues of medical professionalism within communities, which can form trainees to internalize the virtues necessary in caring for the ill. This view recognizes the socialization process, and consequently, requires creation of equally powerful social structures that internalize virtuous habits. The problem this view encounters is uncertainty about whether such social structures are influential enough to effectively foster virtue and enable medical professionals to resist the internal and external forces of the HC.

Kinghorn et al.[5] suggest several reasons that moral and religious communities may serve as viable partners in forming medical professionals in light of the HC. Moral communities aim to form members in accord with values such as compassion and upholding the personhood of patients. Religious/spiritual communities are often less influenced than medicine by hierarchical structures or the market economy's demands for efficiency. Many spiritual communities not only uphold values that are consistent with professional ideals but additionally provide practices that socialize members into habits of virtue. Finally, most spiritual communities hold robust understandings of suffering and dying, which can enable physicians to serve patients within a framework of meaning and action as they encounter suffering.

There are few data available, however, examining whether religion and spirituality influence medical socialization or create resistance to the HC. Hence, as an exploratory study, this project engaged the question: What role does religion/spirituality play among trainees as they internalize professional expectations and are socialized by experiences embedded in the hidden curriculum?

## Methods

### Sample

Eligible Harvard Medical School (HMS) students were fourth-year medical students currently participating in clinical rotations or second-degree programs, and post-graduate residents who recently graduated from HMS. Eligible HMS faculty were senior faculty members in close contact with medical students identified as being open to discussing medical education and religion/spirituality. The Harvard University Faculty of Medicine Institutional Review Board determined (June 5, 2013) that the protocol was not human subject research as defined by the Department of Health and Human Services and Food and Drug Administration regulations. All participants ($n = 33$) provided implied consent according to protocols approved by the institutional review board.

### Protocol

Medical students and faculty were enrolled between August 1, 2013 and December 15, 2013. Student representatives familiar with the HMS community identified other students who would provide a range of perspectives on medical training. The protocol sought a diversity of participants by choosing students from a range of spiritual backgrounds, race/ethnicities, genders, and specialty interests, as known and identified by the research staff. Recruitment followed chain-referral sampling. A semistructured interview guide was developed by an interdisciplinary expert panel of medical educators and religious experts (Table 1). To avoid leading questions, participants were not informed that the study focused on religion/spirituality in training, and prompts on religion/spirituality occurred later in the interview only after more general questions were asked. Religion and spirituality were

*Table 1*

**Semiscripted Protocol Developed by an Expert, Interdisciplinary Panel for Harvard Medical School Student Focus Groups and Individual Harvard Medical Faculty Interviews**

| |
|---|
| **Harvard Medical School (HMS) Student Focus Groups:** |
| 1. Reflecting back, what were your original reasons and motivations for entering medical school? |
| 2. In what ways have you found yourself changed either positively or negatively through your training? |
| 3. As you've seen patients suffer throughout your clinical training, how have you processed and dealt with that suffering? |
| 4. As medical students, we receive extensive formal instruction in the form of lectures, tutorials, and other didactic sessions in parallel with more implicit or hidden instruction such as the hospital culture and customs and interactions with attendings and residents. How would you describe the hidden/informal components of the curriculum at HMS and affiliated hospitals? |
| Prompts: In what ways do you feel affected by these forces as a trainee? How important do you feel the informal and hidden curricula are for shaping your development as a physician, both positively and negatively? Considering implicit instruction in the hidden curriculum, what do you feel are the overarching values emphasized/modeled in medicine? How does this model resonate with you and compare to what you personally believe regarding the ideal physician? |
| 5. What, if any, have been the resources and/or practices that help promote those [your?] values and ideals in the midst of your work? [Prompt] What role, if any, do your spiritual beliefs/practices play in promoting those values? |
| 6. How, if at all, have your religious and/or spiritual beliefs/practices changed in the course of your training? |
| **For Harvard Medical School (HMS) Faculty (Interviews)** |
| 1. What aspects of the medical school training at HMS would you say are the most challenging for students? |
| 2. How do you see students coping with some of the challenging experiences they encounter during their training? |
| 3. What changes do you notice in students over the course of their training? Do you see a change in levels of empathy/compassion in students over the course of their training? |
| 4. What values or virtues would you say are most highly regarded or most prevalent in the practice of medicine? |
| 5. What gaps, if any, do you see in the medical curriculum? What place, if any, does religion/spirituality have in the curriculum? |
| 6. How would you describe the hidden/informal components of the curriculum at HMS and affiliated hospitals? |
| 7. What do you consider to be important characteristics/practices for physician well-being? |

undefined in the interviews to not superimpose a single definition. Research staff underwent a half-day training session in interview methods and received ongoing supervisory guidance from M. J. B., ensuring homogeneous interview procedures. Focus groups were used for all student interviews (five total) and one-on-one interviews for faculty. Interviews and focus groups ranged between 30 and 120 minutes in duration and participants received a $25 gift card.

### *Measures*

*Characteristics.* Respondents completed a demographic questionnaire. Demographic information was then correlated with transcripts by the interviewer maintaining participant anonymity.

*Religiousness/Spirituality.* Self-reported religiousness and spirituality were measured using the validated National Institutes of Health/Fetzer Multidimensional Measurement of Religiousness/Spirituality (MMRS)[34] including "To what extent do you consider yourself a religious person?" and "To what extent do you consider yourself a spiritual person?" Response options included "very," "moderately," "slightly," or "not at all."

### *Analytic Methodology*

*Qualitative Methodology.* The protocol's methodology[35] includes triangulated analysis, involvement of multidisciplinary perspectives (medicine, sociology, and theology), and reflexive narratives, maximizing the transferability of interview data. Interviews were audiotaped, transcribed verbatim, and participants were de-identified. Transcriptions were independently coded line by line by C. M. and Z. E. P., and then compiled into two initial coding schemes. Following principles of grounded theory,[36] a final set of themes, subthemes, and hypotheses inductively emerged through an iterative process of constant comparison. Transcripts were then reanalyzed (NVivo 10, QSR International, Burlington, MA) by J. B., C. M., and Z. E. P., each coding independently based on derived categories and themes. The inter-rater reliability score was high (average triangulated kappa score of 0.75).

*Analysis.* Descriptive statistics were used to identify demographic and religious/spiritual characteristics. Participant religiousness and spirituality were compared based on responses to the MMRS.[34] Those who responded "very" or "moderately religious" were defined in the study as "religious," and those who responded "slightly" or "not religious at all" were defined as "not religious." Spirituality was similarly dichotomized.

## *Results*

Demographic information is provided in Table 2. The interviews yielded three categories wherein religion and spirituality influences the socialization process of medical trainees: challenges, coping strategies, and developmental changes. "Religion/spirituality" is reported as a single construct because few differences existed between religion and spirituality in participants' responses.

*Table 2*

**Demographic Information of Harvard Medical School Students ($n = 25$) and Faculty Interview Participants ($n = 8$; Total, $N = 33$)**

| Demographic Information | *N* | % |
|---|---|---|
| | 33[a] | 100.0 |
| Female gender | *16* | 48.5 |
| Years in practice/service | 28 | |
| Medical trainee[b] | 20 | 71.4 |
| Faculty, practicing 8–20 years | 5 | 17.9 |
| Faculty, years practicing <30 years | 3 | 10.7 |
| Interaction setting | 33 | |
| HMS student focus groups | 25 | 75.8 |
| HMS faculty interview | 8 | 24.2 |
| Medical specialty | 28[c] | |
| Internal medicine | 11 | 39.2 |
| Surgical specialties[d] | 4 | 14.3 |
| Neurology[e] | 3 | 10.7 |
| Psychiatry | 2 | 7.1 |
| Pediatrics/pediatric subspecialties[f] | 5 | 17.9 |
| Other subspecialties[g] | 3 | 10.7 |
| Do you consider yourself Hispanic or Latino? | 33 | |
| Yes | 3 | 9.9 |
| No | 30 | 90.9 |
| What race or races do you consider yourself to be? | 32 | |
| White | 18 | 56.3 |
| Asian | 8 | 25.0 |
| Black or African-American | 5 | 15.6 |
| Arab | 1 | 3.1 |
| Which of the following best indicates your religious affiliation? | 33 | |
| Protestant | 16 | 48.9 |
| Roman Catholic | 5 | 15.2 |
| None | 5 | 15.2 |
| Jewish | 4 | 12.1 |
| Buddhist | 1 | 3.0 |
| Hindu | 1 | 3.0 |
| Other Christian[h] | 1 | 3.0 |
| If Jewish, would you say you are: | 3 | |
| Reform | 2 | 66.7 |
| Orthodox | 1 | 33.3 |
| If Christian, do you consider yourself evangelical? | 18 | |
| No | 15 | 83.3 |
| Yes | 3 | 16.7 |
| How often do you attend religious services? | 33 | |
| Several times a week | 1 | 3.0 |
| Every week | 7 | 21.2 |
| Nearly every week | 0 | 0.0 |
| Two to three times a month | 4 | 12.1 |
| About once a month | 4 | 12.1 |
| Several times a year | 7 | 21.2 |
| About once or twice a year | 3 | 9.1 |
| Less than once a year | 6 | 18.2 |
| Never | 1 | 3.0 |
| To what extent do you consider yourself a religious person?[i] | 33 | |
| Very Religious | 7 | 21.2 |
| Moderately Religious | 6 | 18.2 |
| Slightly Religious | 12 | 36.3 |
| Not religious at all | 8 | 24.2 |
| To what extent do you consider yourself a spiritual person?[c] | 33 | |
| Very spiritual | 8 | 24.2 |
| Moderately Spiritual | 14 | 42.4 |
| Slightly Spiritual | 6 | 13.6 |
| Not spiritual at all | 5 | 15.1 |

[a]When the totals do not equal 33 for each of the categories, it means that the respondent(s) did not provide a response for the particular question.
[b]The category "Medical trainee" includes students in the fourth year, fifth year MD/MPH, and post-graduation Year 5.
[c]The five respondents who did not provide a medical specialty were all students.
[d,a]"Surgical specialties" include surgery and orthopedics.
[e]One respondent reported internal medicine and neurology. This response is recorded here in neurology.
[f,a]"Pediatric subspecialties" include pediatric neurology, pediatric critical care, and pediatric anesthesiology.
[g,a]"Other subspecialties" refer to anesthesia/critical care, dermatology, and radiation oncology.
[h,a]"Other Christian" refer to Sabbatarian Christian.
[i]This question comes from Fetzer's Institute *Multidimensional Measurement of Religiousness/Spirituality for Use in Health Research.* (Fetzer Institute & National Institute on Aging Working Group. Multidimensional measurement of religiousness/spirituality for use in health research. Kalamazoo, MI: Fetzer Institute, 1999.)

*Religion/Spirituality and Training Challenges*

Religion/spirituality influenced participants' perception of challenges faced within medical training. After comparing respondents based on the MMRS items, religion/spirituality protected against some challenges and intensified other challenges. Religion/spirituality appeared as a protective factor in four areas.

*Emotional Stress.* Nonreligious/nonspiritual participants (seven of 11) identified the challenge of learning how to respond and deal with the emotional stress of caring for patients. One faculty member stated, "[One of the biggest challenges] is learning about how to interact with patients and other people about serious matters like fatal illness, or death and dying, family issues, domestic violence, really serious problems which can make you feel sad or frustrated, or just overwhelmed by how emotionally difficult it is for a patient" (BO1002). A student indicated: "I feel like there have been many opportunities where I was challenged emotionally, a lot, over and over again, whether it's clinical scenarios or just, like, things we're exposed to, things I never thought I would tolerate" (WOM3). Fewer religious/spiritual participants mentioned this theme (eight of 22).

*Loss of Compassion.* Exposure to difficult situations oftentimes diminished compassion among nonreligious/nonspiritual participants (five of 11). One student said: "I feel you become very desensitized during your third- and fourth-year training, and I think someone said 'People who are the most sympathetic and empathic, tend to be the ones that tend to get jaded more quickly and burnt out towards the end of the third year.' And I think that's true in a lot of ways" (MN2). Another student said, "I did an ICU rotation and we lost like 10 people in four weeks, and it just stopped affecting me … I was just going through the motions" (MN1) Religious/spiritual trainees were less likely to indicate this loss (three of 22).

*Work-Life Balance.* Finding work-life balance was more commonly described as a problem by nonreligious/nonspiritual (six of 11) as compared with religious/spiritual participants (four of 22). A faculty member noted: "I think people really have to learn to set limits on their time, and then feel good about how their patients are being cared for when they're not around, which is a really challenging thing" (EN09).

*Relationship Strife.* Navigating relationships was challenging for nonreligious/nonspiritual participants: "Through medical school, it's made me worse about cutting other people off and just being short with other people who are in my personal life" (AN10). Nonreligious/nonspiritual participants tended to discuss relationship tensions including failure to communicate with other team members (three of 11) and competing with other students (four of 11). Interpersonal challenges were not as commonly reported among religious/spiritual participants: none of 22 mentioned encountering team communication issues, and three of 22 conflict from student competition.

*Religion/Spirituality Intensifies Training Challenges.* Religious/spiritual participants were more likely to discuss difficulties raised within the training process connected to the theme of personal identity. For example, knowledge acquisition was discussed as a stressful process. Religious/spiritual responders were more likely to discuss this issue (10 of 22) compared to nonreligious/nonspiritual (two of 11). Similarly, religious/spiritual responders were more likely to discuss issues of self-doubt, figuring out career goals, and disillusionment with one's original expectations. One student responded about training, "I feel like we lose that sort of internal 'This is who I am'" (LN12). These challenges of identity were not as frequently mentioned by nonreligious/nonspiritual participants.

*Religion/Spirituality and Coping in Training*

Students and faculty mentioned a variety of coping strategies during training. Most participants emphasized the importance of family/friend support systems, personal reflection, and outlets such as exercise. Reflection came in the form of talking, venting, and journaling. Some students mentioned a required tutorial that gave them the opportunity to reflect (Patient-Doctor III).

*Repression.* Nonreligious/nonspiritual participants were more likely to mention a repressive coping style (seven of 11), which they used as a means of self-protection that ignores powerful experiences and emotions. One student said, "I think it's something that you don't let yourself think about all the time, just for self-preserving purposes" (LN12). Another student indicated that she adopted repression because she did not have other known means of dealing: "I kind of realized I don't know how to respond to it [suffering] and the reason is that I don't have any active way of doing that …" (AN10). Another student worried about repression, "I do suppress a lot. I feel like one day I'm going to just crack full of tears. It's a rare time when I reach out to other people to help process, and I make all kinds of excuses as to why I don't" (JS10). Religious/spiritual responders did not endorse this theme as commonly (five of 22).

*Compartmentalization.* Several nonreligious participants indicated that compartmentalization, a strategy where self-states are kept separate, was a legitimate means to cope (four of 11). One faculty member asserted, "One of the goals of having well-being is for the medical side of our lives to be somewhat compartmentalized" (RG14). Sharing this view, a student said: "I think it's a good skill to have for the most part, to be able to kind of emotionally separate when something serious happens and be able to go on with everything else you have going on" (MN3). Few religious/spiritual participants endorsed compartmentalized tactics (three of 22).

*Prayer and Faith.* Prayer and faith were frequently mentioned as a central coping mechanism among religious/spiritual participants (15 of 22). Religious participants especially endorsed this theme (12 of 13). One student noted, "The only way I could deal with it [emotional experience in clinical training] was praying, and you kind of just find comfort in believing, in really believing, that this is not all there is to it, that it's not the end" (MN1). Another said, "There's no doubt in my mind that I could not do this without God" (WOM1) Prayer was not as frequently mentioned by nonreligious/nonspiritual responders (two of 11).

### *Changing Religiousness/Spirituality*

Many students discussed fluctuations in their own religion/spirituality (19 of 33) during training, whereas fewer said there had been no change (seven of 33). Some reported less religion/spirituality (five of 33), whereas a majority (10 of 33) described growing religious/spiritual connections (Table 3). For example, "I think these moments throughout my training have really helped to increase my faith, because there's nothing else you can do but pray and believe that it's all in God's hands" (WOM1). Another said, "I think medical school really challenges you to really think about what you believe and why you believe it and in times where it gets super dark and it's just you and just God, you get down to kind of the bare bones of your faith. Yeah, it was rough, but thank you, medical school" (MB07).

## Discussion

This preliminary study aimed to identify how religion/spirituality, understood as a primary socialization for many,[37] intersects with medical training and the experience of the HC. Three domains emerged in which religion/spirituality appears to be an important factor in trainee socialization and in their encounter with the HC. First, religious/spiritual participants may experience both added struggle with personal identity and self-confidence, and may experience protection from relational discord on teams, work-life imbalance, and emotional stress arising from patient encounters. Second, religion/spirituality also may influence coping strategies during

*Table 3*
**Student Quotations on Changing Religiousness and Spirituality in Medical School**

| Religion/Spirituality Changes | Representative Quotes |
|---|---|
| More religion/spirituality | *I think it's definitely strengthened my faith … One is you get a better appreciation for what it means for someone to be broken in a way that I had no idea before medical school. I mean, physically broken in terms of their illnesses, [and] people with very strange and sometimes very sad stories about their struggles. [You] see how people deal with it, whether sometimes people rely on God, sometimes people rely on drugs … it can be very lonely at times going through third year, and sometimes you're very angry and very upset and you learn, firsthand, what it means to be broken in that sense too. So I think in both ways you learn what broken means, and I think that likely leads you to faith. I think you appreciate what it means to be under God's grace and to lean on that on a daily basis. I think it's definitely helped me this year.* [SK07] |
| Clarified religion/spirituality | *I've definitely seen both where classmates who don't believe either are pushed away from religion because you see medicine and it's so easy because we just solve the problem and then we give this drug and, like, "Oh, it's so dumb." Like, "Why would you need God?" … But then I've also seen it on the other side where people have really struggled with death and dying and kind of like the meaning of life and asked really tough questions in those times. So I think I've seen both sides of medicine kind of play their roles.* (WOM2) |
| Less religion/spirituality | *I had probably one of the bigger shifts, and honestly, I don't think there is a lot of causality with med school, but it just happened to happen during med school. I went my first year of med school and second year being [one of the leaders] of the Muslim group … When I came into med school, Islam was a big part of my life, but then I started drifting away, may be it was because of the busyness of med school? Then unfortunately right around Step 1 studying period, I formally left my faith, went through some sort of weird existential crisis, started watching Swedish movies and I don't know, reading all this weird stuff. Now I've reached a steady state of Agnosticism. I would say that it was very difficult to go through that transition while I also had to maintain top performance and studying all day and keeping focus in the hospital as well, but I think you have to sort of deal with the worldly things and the more spiritual side simultaneously a lot of times.* (AI10) |
| No change | *I came into med school not even having any faith and spirituality, and I feel like I'm equally there now, so it hasn't changed at all, but I think one thing that's different is before medical school, sometimes I might think about 'Oh, I should go try that or I should at least consider this.' Even if I didn't actively pursue it, I at least thought I had the possibility to exchange and explore something spiritual or religious. Right now I just don't have the time or energy to even imagine, if [spirituality] makes sense.* (AN10) |

encounters with patient suffering. Religious/spiritual trainees tend to adopt prayer, faith, and compassion as key means of coping. In contrast, nonreligious/nonspiritual trainees discussed compartmentalization and emotional repression, coping strategies internalized through the HC. Third, levels of religion/spirituality appear to significantly fluctuate during medical training, with many increasing in religiousness/spirituality. Fig. 1 illustrates how these domains may operate within training and point to a distinct religious/spiritual socialization that likely may occur before and within medical training.

First, consider challenges encountered in training. Most challenges highlighted by religious/spiritual participants were connected to personal identity and self-doubt. Religious/spiritual participants acknowledged struggle in perceived mastery of medical knowledge, disillusionment with medicine, self-doubt, anxiety about evaluation, and the pressure of being at "Harvard." By contrast, nonreligious/nonspiritual participants struggled with emotional stress from patient suffering, finding balance in work-life, and experiencing relationship strife such as competing with other students. These differences may be partly understood by distinct socialization processes that form medical trainees' self-identities. Religious/spiritual persons are often socialized within particular communities to conform (however imperfectly in practice) to values prescribed by religious traditions. Moral frameworks found, for example, in Buddhism, Islam, Judaism, and Secular Humanism, uphold rich but not identical ethical ideals and provide particular socialization through communities embodying those values. Consider, for example, the "Beatitudes" as a foundational ethical framework among Christians. These teach that one should not think too highly of self ("Blessed are the poor in spirit") or promote oneself ("Blessed are the meek"). They uphold that one should seek relational harmony ("Blessed are the peace-makers"), maintain order in one's priorities ("Blessed are the pure in heart"), and strive for ideal social systems ("Blessed are those who hunger for righteousness"). These values stand in tension with an HC that fosters being singularly focused on advancement within medicine or on self-promotion that can create conflict within work relationships. Religious/spiritual participants socialized within particular moral frameworks may make choices that resist some aspects of the HC, creating both challenges and benefits.

Second, consider coping strategies in training. Most coping strategies were driven by encounters with patient suffering and death. All participants turned toward a range of coping strategies such as family/friend supports and personal reflection. However, religious/spiritual participants gravitated toward three overlapping coping mechanisms: prayer, faith, and compassion. By contrast, nonreligious/nonspiritual participants expressed more difficulty processing patient suffering and were more likely to use negative coping strategies including emotional repression and compartmentalization. These differences can again be partly understood by religious/spiritual socialization. Religious/spiritual participants often experience socialization that lifts up faith, prayer, and compassion in the face of suffering. This religious/spiritual socialization resists both repression and compartmentalization as inadequate responses to human suffering. Religious/spiritual coping characterized by prayer, faith, and compassion appear to be

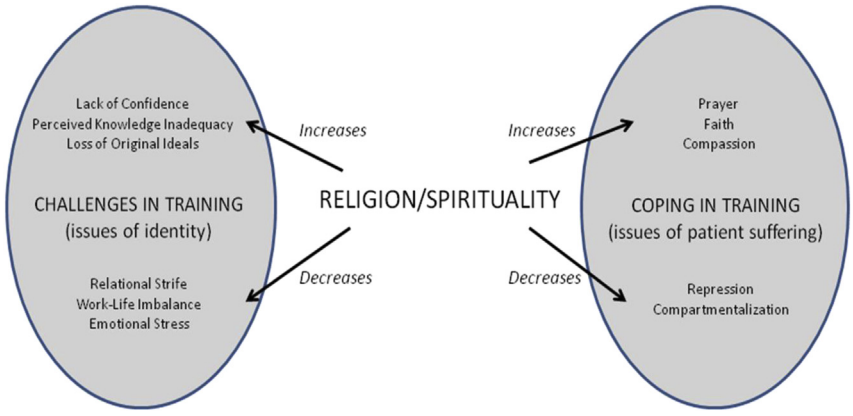


Fig. 1. Exploratory diagram depicting the influence of religion/spirituality on medical trainee challenges and coping strategies. Religion/spirituality grows in importance for some trainees during training and diminishes for other students. "Religion/Spirituality" is not a single construct or socialization as particular religious and spiritual communities hold unique beliefs, moral codes, and spiritual practices. Different traditions, whether religious, spiritual, or religious-like may interact with the hidden curriculum in distinct ways. Future quantitative research is necessary to investigate overlapping and distinct socialization effects within medical professionalism and the hidden curriculum.

effective approaches that process emotional stress arising from encounters with suffering.

As a hypothesis-generating study, these preliminary data are consistent with the claim[5] that religion/spirituality provides some trainees resources to resist the HC and constructively face suffering. Resources may include ideals presented within medical education curricula[28,30–32,38] and embodied practices created by particular communities.[5] From this perspective, religion/spirituality may have an additional protective effect against the HC. But what does this mean for a medical profession that is morally and religiously pluralistic?[39] Clearly, future directions that consider a professional partnership with religion/spirituality need to consider many different moral, nonreligious, and religious/spiritual constituencies and include recognition that different traditions may interact with the HC in distinct ways. Many physicians (89%) identify with a religious tradition, describe themselves as religious and/or spiritual (78%), and agree that faith influences their medical practice (55%).[39] Hence, religion/spirituality may be an overlooked resource that can serve as viable partners with medical education in resisting the HC.[5,40] Nonetheless, future work is necessary to consider how to create partnerships where medicine does not instrumentalize religion/spirituality[41] and religion/spirituality does not proselytize medical professionals.

Limitations of this study include its single location, small sample size, and cross-sectional design. The study does not purport to make generalizable claims of frequency or causation. Participant mention of a theme does not equate to belief in that theme. The intention of Fig. 1 is to suggest directions for future research. Although those who were more religious/spiritual did not discuss as often certain challenges (e.g., relational strife) or coping styles (e.g., compartmentalization), this could be because of poorer self-reflection. The sample is nonrepresentative because it has fewer religious (39% vs. 63%) and spiritual (67% vs. 74%) trainees compared to national physician averages.[42] This study also found significant fluctuation in levels of endorsement of religion/spirituality. A majority in the sample reported to have become more religious/spiritual during medical training. Longitudinal studies are necessary to clarify the frequency of religious/spiritual change and its causes.

## Conclusion

As an exploratory study, religion/spirituality may play an important role in the socialization process of medical training. Prospective survey-based research is needed to test hypotheses generated by this preliminary study.

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