A Novel Peer-Directed Curriculum to Enhance Medical Ethics Training for Medical Students: A Single-Institution Experience

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ABSTRACT

BACKGROUND: The best pedagogical approach to teaching medical ethics is unknown and widely variable across medical school curricula in the United States. Active learning, reflective practice, informal discourse, and peer-led teaching methods have been widely supported as recent advances in medical education. Using a bottom-up teaching approach builds on medical trainees' own moral thinking and emotion to promote awareness and shared decision-making in navigating everyday ethical considerations confronted in the clinical setting.

OBJECTIVE: Our study objective was to outline our methodology of grassroots efforts in developing an innovative, student-derived longitudinal program to enhance teaching in medical ethics for interested medical students.

METHODS: Through the development of a 4-year interactive medical ethics curriculum, interested medical students were provided the opportunity to enhance their own moral and ethical identities in the clinical setting through a peer-derived longitudinal curriculum including the following components: lunch-and-learn didactic sessions, peer-facilitated ethics presentations, faculty-student mentorship sessions, student ethics committee discussions, hospital ethics committee and pastoral care shadowing, and an ethics capstone scholarly project. The curriculum places emphasis on small group narrative discussion and collaboration with peers and faculty mentors about ethical considerations in everyday clinical decision-making and provides an intellectual space to self-reflect, explore moral and professional values, and mature one's own professional communication skills.

RESULTS: The Leadership through Ethics (LTE) program is now in its fourth year with 14 faculty-clinician ethics facilitators and 65 active student participants on track for a distinction in medical ethics upon graduation. Early student narrative feedback showed recurrent themes on positive curricular components including (1) clinician mentorship is key, (2) peer discussion and reflection relatable to the wards is effective, and (3) hands-on and interactive clinical training adds value. As a result of the peer-driven initiative, the program has been awarded recognition as a graduate-level certification for sustainable expansion of the grassroots curriculum for trainees in the clinical setting.

CONCLUSIONS: Grassroots medical ethics education emphasizes experiential learning and peer-to-peer informal discourse of everyday ethical considerations in the health care setting. Student engagement in curricular development, reflective practice in clinical settings, and peer-assisted learning are strategies to enhance clinical ethics education. The Leadership through Ethics program augments and has the potential to transform traditional teaching methodology in bioethics education for motivated students by offering protected small group discussion time, a safe environment, and guidance from ethics facilitators to reflect on shared experiences in clinical ethics and to gain more robust, hands-on ethics training in the clinical setting.

KEYWORDS: Medical ethics, medical education, medical students, education curriculum, peer-directed learning

Introduction

Everyday health care ethics continues to be more complex and dynamic within the current evolving health care system, requiring physician trainees to continuously develop and build on their ability to recognize and critically approach everyday ethical considerations that arise in clinical practice. Although there is consensus that medical ethics is an important topic to the training of future physicians, the best pedagogical approach to teaching ethics to medical students is still debated. In recent years, student involvement in curriculum development, role-modeling, and active peer-to-peer learning techniques have been supported as valuable learning methods that additionally receive high student satisfaction.[1–4] Advantages of a peer-driven curriculum include similarities in knowledge-base and

social position shared among peers.[5] Students are more likely to ask questions and engage in discussion among peers with no perceived position of authority. In addition, peers are more understanding of the knowledge gaps and learning barriers in their education as their level of training and foundation of knowledge is similar among classmates.

With a shift in health care ethics training away from highly debatable and publicized medical ethics cases, focus has moved toward the ethical considerations pertinent to medical decision-making in everyday clinical practice at the level of the clinical knowledge and training experience of medical students in their preclerkship and clerkship years.[6] Emphasis for trainees is placed on self-awareness, evolution of one's own moral identity, and sustaining lifelong learning.[7] This method of reflective practice is shown to lead to improved understanding of clinical context, transformation of one's perspective, and development of trainees with more thoughtful decision-making and increased awareness of the uncertainties of clinical medicine. Using a conversational and narrative storytelling approach toward reflection in the setting of clinical supervision encourages trainees to think critically and creatively, understand the strengths and weakness of their clinical decision-making, and develop goal-setting for their learning.[8]

Scher and Kozlowska[9] support informal ethical discourse by teaching cases from everyday clinical practice, focusing on "cases or situations that were bothering [trainees]" instead of viewing clinical situations as presenting specifically "ethical" problems. In this teaching method of health care ethics, promoting conversation and collaboration among trainees reframes the model for discussing clinical ethics to build on the native moral and ethical thinking of trainees. This method emphasizes an approach to making decisions regarding everyday ethical considerations as they arise in challenging medical practice. With an eye to developing and maintaining habits of good practice, Scher and Kozlowska emphasize informal ethics, skills of communication, collaboration, reflective listening, cultural competency, and team-based decision-making.[10] The aim of this report is to detail our methodology of a student-driven curriculum for interactive, longitudinal, and sustainable medical ethics training intended for interested medical students and other health care professionals in training. The findings of this report are important to guide medical school curricula and enhance elective opportunities for medical students to approach everyday clinical ethics through active learning relevant to practical clinical scenarios. Furthermore, we identify strengths and weaknesses based on preliminary assessment of this interactive pedagogical approach among the many alternative ways to teach ethics.

Methods

Setting and participants

All 190 incoming first-year medical students at the Medical College of Georgia at Augusta University were offered the opportunity to complete an application for acceptance into the 4-year Leadership through Ethics (LTE) program. The inaugural class began during the 2015 to 2016 academic year supported by an Alpha Omega Alpha 3-year US$9000 grant. A total of 16 first-year medical student participants were accepted during each academic year.

Needs assessment

The student-driven mission was to foster a more robust training environment in medical ethics for fellow trainees with a shared interest in medical ethics. With emphasis on small group discussion, our vision was to create an opportunity for students to discuss and analyze everyday ethical considerations commonly faced in the clinical setting to develop one's own ethical and moral thinking while respecting the views of others. We informally surveyed medical students at our institution in their preclinical years and found only 15% were not interested in ethics, more than 65% would like more ethics in the curriculum, and 70% of students were unsure of resources available for handling ethical dilemmas, specifically the availability of our intuition's robust medical ethics committee for personal consultation.[11] A follow-up, institution-wide, interdisciplinary survey of medical, nursing, physical therapy, and undergraduate BS/(D)MD students (n = 562) indicated that almost half of the respondents reported no prior medical ethics training in their previous educational experience, while 60% reported an interest in more ethics education, and 92% noted that an understanding of medical ethics was important to their future career.[12]

The current formal medical education curriculum at our institution includes mandatory quarterly 1-hour large classroom-based lectures provided by faculty covering standard medical ethics and professionalism topics, such as informed consent, conflict of interests, end-of-life care, etc throughout both the first- and second-year curriculum. In addition, large classroom-based lectures were incorporated into a 3-day Art of Doctoring intercession during the first-year curriculum and a 2-day Art of Doctoring intercession during the second-year curriculum, each with approximately 8 hours of contact time dedicated to medical ethics topics.

Program description

Due to the strong student interest in medical ethics, a longitudinal training program was designed to span all 4 years of medical school for interested students to run in parallel with the formal medical education curriculum. The curricular components were designed and facilitated by a group of LTE executive board student members under supervision of a faculty mentor. Curricular components encompassed didactic lectures, interactive learning, small group peer discussions, pastoral care shadowing, and student-faculty mentoring related to medical ethics. Teaching and learning strategies implemented throughout the integrative curriculum were based on core learning to

include the following: (1) small group discussion should be based on everyday ethical considerations faced in the clinical setting relevant to the current training of preclerkship and clerkship medical students, (2) students should be able to self-direct and self-select their learning topics of interest through discussion and reflection with peers, and (3) the environment should foster an opportunity for students to evolve their own moral ideas while also learning from the differing perspectives of others. The curriculum is structured to integrate training over all 4-years of medical school and is designed for participating students to commit an average of 3 to 4 hours per month during the academic calendar year. A more detailed review of the leadership strategy, curricular components, and program details is outlined in Appendix 1.

Goals and objectives

Our student-driven mission of the enhanced training opportunity in medical ethics was to provide interested medical students a grassroots interactive study of medical ethics and promote medical student leadership development as future physicians throughout the longitudinal program. The major goals of the LTE program were 4-fold:

1. Develop future leaders in medicine through experiential learning of medical ethics;
2. Strengthen student understanding and participation in clinical ethics discussion and reflection through an innovative student ethics committee experience;
3. Create and implement an interactive ethics curriculum for the medical student body with future expansion to foster collaboration and communication with other interprofessional disciplines and the local community;
4. Promote a better understanding of cultural and spiritual competence through shadowing pastoral care and medical ethics committee members.

Ethics facilitators

The chair of the institution's medical ethics committee served as the clinical advisor during the development and deployment of the program. However, the LTE self-derived student executive board members were the primary persons responsible for the ongoing management and evaluation of the training. The entire institution's medical ethics committee continually supported the program by offering topic ideas for discussion, providing opportunity to shadow during daily clinical ethical interdisciplinary discussion rounds, serving as small group ethics facilitators, and moderating mock student ethics committee discussions. The wide variety of medical training and professional backgrounds of the volunteer ethics facilitators offered a unique experience for students to receive a robust difference in perspectives on medical ethics and methods for approaching everyday clinical practice. The group

of 14 ethics facilitators included numerous physician department chairs, hospital ethics committee members, hospital chaplains, as well as interprofessional representation from a lawyer with a focus on health care ethics, a Doctor of Nursing representative, and a PhD professor in philosophy.

Program evaluation

The program is now ending its fourth year with 65 active program participants. The program's basic pedagogical approach and evaluation metrics are outlined in Table 1. Currently, there is no formal graded assessment for the program to promote the grassroots training approach and emphasize peer discussion, reflection, and collaboration. The use of written self-reflections and verbal feedback from discussion with peers and ethics facilitators promotes an environment for self-regulation and accountability. Preliminary student narrative feedback from LTE student members in their clerkship years was obtained as part of a larger, institution-wide survey evaluating interdisciplinary student interest in medical ethics education.[12] Qualitative results were analyzed to identify program strengths and opportunities for future improvement.

Future outlook

The current student-derived grassroots efforts have been expanded into a graduate-level certification being offered to all incoming graduate students at Augusta University in an interdisciplinary setting. This opportunity will be offered free of cost to interested graduate-level nursing, medical, and allied health students and will accept 16 students in the inaugural semester on a rolling application basis. The purpose of expanding the grassroots training is to sustain the funding, space, and organizational support to allow students the opportunity to continue to have dedicated time and resources for informal peer discussion and reflection, along with further collaboration and communication with interdisciplinary peers. While maintaining the structure of peer-to-peer discussion, self-reflection, and hands-on active learning in the clinical environment, the training will be enhanced with an additional component that addresses relevant philosophical theory to complement the decision-making thought processes experienced in the clinical setting.

Results

The LTE program curriculum received preliminary positive feedback from the 2015 to 2016 inaugural class participants (n = 16) in regard to their confidence in recognizing every day medical decisions with ethical considerations that they questioned or made them uncomfortable during their transition to providing direct patient care on the clinical wards, with selected student examples provided in Figure 1.

Preliminary student narrative feedback further revealed recurrent themes on the positive aspects of the interactive curriculum design including (1) clinician mentorship is key,

Table 1. Description of the Leadership through Ethics (LTE) program's pedagogical approach and evaluation process.

CURRICULAR COMPONENT	EVALUATION	FREQUENCY
Interactive curriculum		
Participation in lunch and learn didactic lectures	Written self-reflection	Twice per semester
Development and presentation of an Art of Doctoring intercession module	Individual feedback on presentation from faculty	One time
Participation in mock student ethics committee discussions	Peer feedback and debriefing session with faculty	Once per semester
Observation and shadowing with pastoral care department and/or hospital ethics committee	Written self-reflection and verbal feedback	Twice per semester
Mentorship		
Participation in small group sessions with peers and ethics facilitators (2:1 ratio)	Written self-reflection and peer discussion	Twice per semester
Involvement in team-building retreats with student peers	Self-reflection	Yearly
Application of theoretical knowledge		
Development of independent student capstone project during clinical years	Primary evaluation by a faculty advisor with possible manuscript submission	One time

I feel I have an increased level of knowledge of medical ethics because of my involvement in LTE. – 4.7/5.0

"As my medical knowledge improved, so [have] my expectations and questions. I also feel more comfortable researching cases and forming an educated opinion."

"Being a member of LTE has remarkably changed my confidence and helped me not only become more ethically minded but also more enthusiastic about my profession and training at MCG as a whole"

Figure 1. Initial student feedback from the 2015 to 2016 inaugural class in evaluation of the Leadership through Ethics (LTE) program during their transition to clerkship years.

(2) peer discussion and reflection relatable to the clinical wards is effective, and (3) hands-on and interactive clinical training adds value. With selected examples provided in Table 2, participating students outlined the impact of mentorship from ethics facilitators with a variety of training and perspective, and opportunity for self-learning. In addition, students highlighted the informal approach in enhancing their awareness of everyday ethical considerations by group discussion, reflection, and shared decision-making and their awareness of resources to address clinical ethical scenarios with multidisciplinary peers.

The ongoing challenges faced by the program leaders and participants include the time availability for participating students and clinicians, particularly as much of the structured group discussion and reflection practice relies on dedicated, enthusiastic volunteer ethics facilitators. In addition, the supplemental curriculum is designed as an elective in addition to the student's core coursework which was the driving force for formalization of the curriculum into a graduate-level certification program to offer dedicated time, space, and institutional recognition for continued peer discussion and reflection. Although the grassroots effort was found to be especially strong for generating student interest, the reality is students' curricular obligations, time constraints, and attending the school for a finite period of time highlight the reliance on constant support and long-term involvement of ethics facilitators to create a sustainable, fluid program. However, these challenges were significantly lessened by a supportive faculty mentorship group, along with a healthy partnership with the institution's robust medical ethics committee and the institution's Center for Bioethics and Health Policy. Suggestions for curricular improvement provided by participating students were largely focused on the lack of dedicated time and structure for continued grassroots efforts in promoting development of one's own moral and ethical thinking through small group discussion with peers. In addition, student feedback suggested incorporation of didactic instruction on theory to support the ethical considerations discussed in the clinical setting, with selected student responses displayed in Table 3.

Discussion

There has been significant attention to medical ethics in medical schools over the past 3 decades, but there is large variability in both content and the delivery across institutions with no consensus on the "best" curriculum. We presented our single-institution experience using a grassroots effort to improve medical ethics training for motivated students through an interactive, 4-year longitudinal curriculum designed by medical students. From preliminary student feedback, this strategy generated student interest and faculty support and successfully enhanced medical ethics training for interested students at a single-institutional level. Overwhelming feedback from current program members in their clerkship years highlighted

Table 2. Selected student feedback representing recurrent positive themes of the Leadership through Ethics (LTE) current impact on medical students in their clinical clerkship years.

POSITIVE STUDENT FEEDBACK OF THE CURRICULUM
"LTE has offered me a great outlet to explore my interest in bioethics as well as allowed me to form relationship with mentors who can help me with these ethical dilemmas."
"I believe that the mixture of case studies, article reviews, and large group presentations has bolstered my judgement making ability and provided me a framework to work off of as I move forward in my career."
"The program is the direct application of how our medical knowledge and clinical knowledge all relate to ethics of a patient."
"LTE exposes directly to how a hospital deals with ethical issues and through LTE I have access to members of the ethics committee should I have any questions or concerns."
"Many of the cases that we discussed during my ethics small group have come up in my rotations and prepared me to think through how I would act."
"The curriculum has given me the opportunity to develop my own personal moral identity and ethical reasoning from the guidance and leadership of many [mentors]."

Table 3. Selected student feedback representing recurrent themes for suggested improvement of the Leadership through Ethics (LTE) curriculum by students in their clerkship years.

SUGGESTIONS FOR CURRICULUM IMPROVEMENT AND FUTURE DIRECTION
"[More] activities that made us think seriously about issues and attempt to find solutions, since that is what we will be doing in our careers."
"I would like to learn more about the theoretical principles of medical ethics, and I would appreciate more interaction with trained ethicists."
"I would also like the program to include some didactic instruction and resources in the principles, theories, and academic components of bioethics and medical ethics."

participants' appreciation for small group discussion and reflection with peers on everyday ethical considerations, as well as hands-on experience with medical decision-making alongside clinician ethics facilitators on the wards.

This novel approach offers an alternative teaching method to the time-constrained formalized, large group lecture-based medical education curriculum. It also offers a viable alternative to the current formal master's level degree programs that may be intimidating to attain or cost-prohibitive to a group of individuals who already have significant debt.[13] The major focus in the grassroots efforts is to empower trainees with the awareness and respect of their own moral and ethical thinking to further develop their own reflective ethical framework for approaching everyday clinical practice by asking themselves "what's bothering me?" or "what's going well or what isn't?."[9,10] This type of awareness is promoted by reflective listening, collaboration, communication, and shared decision-making. Mann et al.[7] suggest that the most influential factors contributing to the development of a reflective practice include a supportive environment, authentic context, accommodation of different learning styles, mentorship, group discussion, and most importantly free expression of opinions and time for reflection.

Regardless of the pedagogical approach, we encourage an interactive modality (eg small group format, case-based narrative discussions, role-playing, mentoring, shadowing, etc) to promote experiential learning and long-term retention of medical ethics knowledge that can be recalled and later applied to clinical practice.[14] This approach is particularly beneficial for physicians in training where most professionalism, self-awareness, and clinical decision-making is experienced and learned in the clinical training environment. Furthermore, peer-to-peer teaching has been shown to improve student critical thinking skills, group participation and discussion, and interest in learning medical ethics.[15,16]

It is important to discuss the role of ethics facilitators in providing clinical supervision and structured framework for supervised practice.[8,9] Although the grassroots training efforts focus on the development of one's own native moral and ethical thinking through peer-to-peer discussion and reflection, guidance and supervision are key to lead reflection and elicit structured feedback on thought content and decision-making processes.[7] Scher and Kozlowska provide a framework for the regular presence of an ethics facilitator to guide background reading and clinically relatable theory, probe further thinking by asking open-ended questions, and provide critical appraisal of thought processes.[9,10] In this way, the practical wisdom garnered by experienced clinicians intersects with the enthusiasm, idealism, and developing clinical moral identity of the younger learners.

The historically limited and wide variability in contact hours allocated to medical ethics training in the traditional curriculum poses a challenge to implementing an interactive curriculum. Across all 4 years of medical education, medical

schools nationwide average 35.6 ± 23.6 hours of medical ethics instruction with 46% of dedicated time occurring in the first-year curriculum.[17] This skewed time distribution toward the preclinical years is concerning as most medical students have yet to experience ethical considerations encountered in the day-to-day clinical setting, and therefore, students are not able to integrate or reflect on their clinical experience with the practical knowledge being taught in the traditional curriculum. Our proposed curriculum attempts to further integrate training over all 4 years of medical school and is designed for participating students to commit an average of 3 to 4 hours per month during the academic calendar year during preclinical and clinical years.

We acknowledge that our proposed program focuses on medical school years, yet ethical learning and development begins well before medical school and continues into formal clinical practice. However, our approach was to focus on a unique strategy for the motivated medical student population. We propose that a solid foundation in one's ability to recognize everyday ethical considerations in clinical practice, confidently problem-solve an approach to resolution, and communicate and collaborate with multidisciplinary colleagues such as an institution's nursing staff, social workers, chaplains, and medical ethics committee members will provide a fundamental foundation of knowledge and clinical experience that will translate to the postgraduate setting as a practicing physician.

The strengths of this report are a clear methodology of a successful medical ethics program that can be replicated on an elective basis at other institutions. The major limitations include the generalizability as we recognize resources across institutions differ. Our institution was fortunate to have highly active and engaged ethics facilitators with an interest in physicians-in-training education. The shared goals between student leaders of the LTE program and ethics facilitators and mentors were invaluable for the success of the program. In addition, we presented a paucity of quantitative, long-term results from this pedagogical approach to translation into the future competency of trainees in medical ethics. However, the program plans to follow students prospectively and focus on long-term impacts of the program in future research. Although, medical ethics is a domain that frequently relies on both qualitative and quantitative assessment, it is an overall challenging domain for educational leaders to grade and assess.[18]

The implications of our findings for students support more involvement in curriculum development and taking ownership over one's education through self-awareness and self-directed learning, specifically for the large number of students expressing an interest in medical ethics. For educators, our report details one strategy to teach ethics using a novel student-led, longitudinal approach. For society, medical students who are better equipped to successfully identify and navigate ethical considerations in everyday clinical practice have the opportunity to be more self-aware and diligent in their thought

process, ultimately aiming to improve patient care during post-graduate training and beyond.

Future direction

With the expansion of our student-driven curriculum into a graduate-level certification, we aim to preserve our grassroots efforts in medical ethics training through continued small group peer discussion and reflection along with hands-on experiential learning alongside ethics facilitators practicing everyday medical decision-making. Maintaining dedicated time and space for group discussion allows students to self-direct their learning and self-reflect on patient care encounters with an ethical dimension that brings about emotional responses of worry, anxiety, doubt, anger, and uncertainty. With mounting attention highlighting the benefits of interprofessional education (IPE),[19,20] our vision is to incorporate nursing, dental, and allied health students in group discussion and reflection, which will positively impact trainees' opportunities to learn respectful consideration of the perspective from their multidisciplinary peers as well as promote group collaboration and communication. Future areas of research focus for the informal medical ethics training include improved outcome analysis for content acquisition, formal assessment, and positive physician attributes. This is vital for continued funding, program improvement, and relative valuation of time allotted in the overall curriculum.

Conclusions

A student-developed, 4-year medical ethics grassroots initiative is one solution to enhance the traditional medical ethics curriculum for interested students in medical school. In the span of 4 academic years, our LTE program, initially designed by 2 medical students eager to address the current gaps in traditional medical ethics education, has grown from a grant-funded student initiative to achieving sustainment of the grassroots efforts with dedicated time and space for peer discussion and reflection on everyday clinical medicine decision-making processes with strong ethical considerations. A focused medical ethics student-derived curriculum may guide students with the tools to recognize, problem-solve, and communicate difficult decisions in clerkships, residency, and beyond as practicing physicians. More importantly, for training the future physician workforce, peer-to-peer directed discussion and reflection with clinical supervision from ethics facilitators provides an opportunity to develop the skills of empathy, active listening, teamwork, and collaboration when involved in direct patient care. Further research is needed to determine the best strategy to teach medical ethics and specifically how teaching modalities are associated with improved patient outcomes.

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Author Contributions

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Appendix 1

Leadership through Ethics (LTE) program mission, leadership strategy, curricular components, and program details.

Student interest and participation marketing

Successful marketing is critical to generate interest among motivated medical students. The LTE program student leaders created a marketing video highlighting the curriculum, ethics facilitators, and advantages of participating in such a unique program. A visual, brief method was received well by students and is recommended to other programs. This marketing video can be viewed at the following link: https://vimeo.com/135059671 (password: Ethics).

Application for program participation

As only 16 participant positions were available per year, limited by the number of available faculty mentors, an application was used to assess an applicant's interest and ability to balance schoolwork and program requirements. A formal introduction to the program was provided for all incoming medical students, and the program has received approximately 40 outstanding applications for 16 positions during each application cycle.

Leadership through Ethics student executive board

The original leadership team consisted of 6 medical students who developed the program idea, received original funding, and initiated the program. Following the completion of the program's first year, a new set of student leaders was selected from within the program through a competitive application. As the program is now in its fourth year of existence, there are 4 student executive board members representing each medical school class. These student leaders, who are also program participants, encourage innovation through personal pride in one's involvement in the curriculum development and allow more strategic planning and improvements for subsequent program participants due to the familiarity of the strengths and weakness encountered directly.

Curriculum overview

The program is designed to allow medical students who successfully complete all requirements of the program to showcase their involvement and interest in medical ethics when applying to residency programs. The 6 major components of the current curriculum include the following:

1. Lunch and learn didactic sessions;
2. Peer-facilitated ethics presentations;
3. Faculty-student mentorship sessions;
4. Student ethics committee participation;
5. Pastoral care shadowing;
6. Ethics capstone project.

The curriculum is designed for participating students to commit an average of 4 to 5 hours per month during the academic calendar during preclinical and clinical years throughout a 4-year track.

Component descriptions

Lunch and learn didactic sessions
1. Goal: Didactic sessions are designed to provide an introduction to the concepts of ethics in a health care setting and allow a format to discuss a variety of common ethical issues and various social issues that complicate or precipitate medical ethics issues. Faculty mentors and guest speakers are brought in to facilitate an open discussion and a forum for students to ask questions on a particular ethics topic. Guest lecturers are scheduled once per academic semester to generate interest and reflection across a campus by permitting an expert in medical ethics to share their work during a 1- to 2-day lectureship;
2. Format: Faculty and guest lecturers with seminar-style discussion (open to all medical students);
3. Frequency: Two didactic sessions per academic semester (1 hour for each discussion);
4. Previous topics: Ethics of Electronic Medical Record, The God Committee, Healthcare Access and Disparities, Ethics of Organ Donation, and Do Not Resuscitate (DNR) and Allow Natural Death (AND).

Peer-facilitated ethics presentations
1. Goal: Peer-facilitated presentations give second-year medical students an opportunity to further their leadership skills by preparing content and delivering a professional presentation to peers. The presentations are designed to facilitate peer discussion on a variety of common medical ethics situations targeted for the audience of the first-year medical class consisting of approximately 190 students.[21] These presentations offer opportunity for the LTE curriculum to augment the traditional medical ethics curriculum through quarterly case-based discussions presented to the first-year medical school class with mandatory attendance;

2. Format: Groups of 3 to 4 students research and prepare a presentation with seminar-style discussion as part of the Art of Doctoring intercession curriculum for the first-year medical school class;
3. Frequency: Each group of students is responsible for a 1-hour presentation, with a total of 4 presentations offered per academic year (1 hour for each discussion);
4. Previous topics: Physician-Assisted Death, Parental Refusal of Cochlear Implantation, Anti-Vaccination, Ethics of Disaster Medicine, Patient Advocacy, and Rural Health and the Medically Underserved.

Faculty-student mentorship sessions
1. Goal: The mentorship facet focuses on developing clinical ethics and leadership skills through small group interactions between students and clinical faculty, as well as opportunity for advising between peers in different stages of their medical education. This mentorship structure is designed for a 2:1 student-to-faculty ratio which allows students to gain insight from experienced clinical leaders and ethicists and provides an environment to discuss and reflect on their own challenging ethical encounters. Ideally, students are assigned to a small group and ethics facilitator with shared career and/or personal interests;
2. Format: Small group meeting consisting of 2 faculty mentors paired with 4 students;
3. Frequency: Two sessions per academic semester (1 hour for each meeting);
4. Previous Topics: Students are encouraged to generate self-directed discussion on any ethical topic of interest, which typically is designed around a journal article of interest or an ethical concern faced by a member during a clinical encounter. This journal club format has resulted in weighty discussions of various ethical issues, including brain death, pediatric abandonment, physician-assisted death, donation after cardiac death, ethics of disaster medicine and resource allocation, research ethics, and many other topics;
5. Faculty mentors: Currently, 16 faculty members volunteer as small group ethics facilitators with the following departments and training represented: internal medicine (MD), infectious disease (MD), neonatology (MD), pediatrics (MD), cardiology (MD), neurology (MD), rheumatology (MD), surgery (MD), radiology (MD), gastroenterology (MD), hospital chaplain services (DMin), nursing (DNP), law and health care ethics (JD), and philosophy (PhD).

Student ethics committee participation
1. Goal: The student-led committee provides an introduction to the design in assembling an ethics committee and the format of writing hospital policy in regard to an ethical consideration through a "mock" committee meeting designed around an actual patient case. Serving in an

advisory capacity and encouraging interprofessional collaboration, the ethics committee is designed to provide consultation to a patient, family, and health care team on a wide range of decisions that may occur over a patient's hospital stay. Students will have the opportunity to discuss the issues at hand and recommend on how to best handle the situation. From their discussions, students will construct a recommendation for the patient and family presented in the mock scenario;

2. Format: First- and second-year students engage in a "mock" hospital ethics committee with guidance and feedback from ethics facilitators;
3. Frequency: One "mock" student ethic committee per academic semester (1.5 hours for each meeting);
4. Previous topics: End-of-life Care in the Intensive Care Unit Setting, Use of Limited Resources, and Disagreement over Resuscitation Efforts.

Pastoral care shadowing
1. Goal: The shadowing component allows students to see day-to-day workings of the hospital's ethics committee members and receive direct mentorship from caregivers directly involved in handling day-to-day ethical considerations. The mission of the pastoral care department is to provide spiritual and emotional support to patients, visitors, and staff at the institution. Responsibilities include arbitrating conflicts between ethical stakeholders, helping patients and families with bereavement and cope with loss, guiding families through difficult ethical decisions, and, if needed, coordinating with the hospital's medical ethics committee to mediate ethical consults. The medical ethics committee serves as an advisory board for staff who encounter ethical concerns in their practice and to generally promote medical ethics awareness. Students have the opportunity to witness medicine from a unique perspective and identify strategies for improving communication skills with patients and other health care professionals. This experience promotes a better appreciation of the role of pastoral care members in providing high-quality patient and health care member care. Students may practice taking spiritual histories and assessments under supervision. Students additionally have the opportunity to shadow medical ethics committee members during advanced care planning, ethics consults, and end-of-life moments. This unique aspect of hands-on training promotes cultural competence and overall mindfulness, which is inherently related to teaching spirituality and professionalism. In addition, this shadowing opportunity allows students to gain insight into the multiple resources that the chaplain services and hospital ethics committee provide physicians when caring for the overall wellbeing of their patients. At the end of each shadowing experience, students will have an opportunity to discuss their experiences with the chaplain in an ethical context, including but not limited to management of patients, spiritual care for patients, and any potential future ethical consults. Students will have another opportunity to revisit their shadowing in the form of a required typed reflection on what they found meaningful or insightful in their encounter and share this with their pastor for further feedback.

2. Format: Students will be assigned to a chaplain on a rotating schedule
3. Frequency: Two shadowing experiences per academic semester for preclerkship year students (2 hours for each encounter)
4. Specialty areas: Intensive Care Unit, Neurology, Bone Marrow Transplant, Cardiology, Surgery, Emergency Department, Oncology and Infusion, Pediatrics, Geriatrics, and Veterans Affairs

Ethics capstone project
1. Goal: The capstone project allows students to broadly integrate their leadership skills, knowledge, and experience acquired to design and execute a single scholarly project related to medical ethics, hospital ethics, or the role of health care providers in the community with regard to a particular ethical issue of interest. There is opportunity for internal student funding to aid participation in completing a capstone project. In addition, students will have the opportunity to give a presentation of their scholarly work at the institution's Medical Scholars Program poster session.
2. Format: Highly flexible and individualized schedule based on the medical student's specific interests in ethics to be completed during clinical years and under supervision of a faculty advisor
3. Frequency: One final independent project to be completed by early fourth year of each student's medical education (schedule decided by the senior medical student and confirmed by the executive board)
4. Project categories: Projects can be done individually or as a small group. If performed in a small group, the level of involvement per student will be assessed by some of the ethics facilitators to ensure all students have enough involvement in the project. The potential topics for capstone projects fall into 6 broad categories:

    (a) Ethics research (IRB approved)
    (b) Ethics case report
    (c) Service project in the field of ethics
    (d) Community-guided project
    (e) Ethics interprofessional lecture presentation
    (f) Medical ethics policy writing/revision

5. Current projects: Advanced Directive Educational Intervention, Antenatal Genetic Testing, Fundamental Life Assumptions Pilot Study, Student Demographics

and Interests in Ethics, No One Dies Alone Initiative, and Assessment of Interdisciplinary Medical Ethics Curriculum

Program accreditation

Student program participants will graduate medical school with a distinction in medical ethics recognized by the Center for Bioethics and Health Policy at Augusta University for successful completion of the program. An accredited 4-course graduate-level certification program in bioethics has been approved for incoming graduate students in Fall 2019 offered in an interdisciplinary setting in partnership with the Center for Bioethics and Health Policy. The goal of this expansion is to continue the grassroots design of experiential training in medical ethics with dedicated small group discussion time and space for motivated students to reflect on shared experiences that raise ethical concerns in the clinical setting along with the guidance of ethics facilitators to garner deeper discussion and provide context and perspective from clinical experience. The course outline for this program can be found at https://www.augusta.edu/institutes/ipph/cbhp/graduate_certificate_in_bioethics/.