Oregon Health & Science University
School of Medicine

Scholarly Projects Final Report

Title *(Must match poster title; include key words in the title to improve electronic search capabilities.)*

Identifying & Overcoming Barriers to Facilitating End-of-Life Discussions Among OHSU MD Students

Student Investigator's Name

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Date of Submission *(mm/dd/yyyy)*

03/17/2023

Graduation Year

2023

Project Course *(Indicate whether the project was conducted in the Scholarly Projects Curriculum; Physician Scientist Experience; Combined Degree Program [MD/MPH, MD/PhD]; or other course.)*

Scholarly Projects Curriculum

Co-Investigators *(Names, departments; institution if not OHSU)*

N/A

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Mentor's Department

Department of Surgery

Scholarly Project Final Report

Concentration Lead's Name

Lisa Silbert, MD

Project/Research Question

This project aims to address barriers to facilitating EOL discussions at the earliest level of medical training by determining OHSU medical students' perceived barriers to facilitating end-of-life (EOL) and goals of care (GOC) discussions in their future practice, identifying the level of (and disparities in) formal EOL and GOC discussion training among OHSU medical students, and proposing possible solutions.

Type of Project *(Best description of your project; e.g., research study, quality improvement project, engineering project, etc.)*

Cross sectional research study

Key words *(4-10 words describing key aspects of your project)*

Medical education, goals of care, end-of-life care

Meeting Presentations

If your project was presented at a meeting besides the OHSU Capstone, please provide the meeting(s) name, location, date, and presentation format below (poster vs. podium presentation or other).

N/A

Publications *(Abstract, article, other)*

If your project was published, please provide reference(s) below in JAMA style.

N/A

Submission to Archive

Final reports will be archived in a central library to benefit other students and colleagues. Describe any restrictions below (e.g., hold until publication of article on a specific date).

N/A

Scholarly Project Final Report

Next Steps
What are possible next steps that would build upon the results of this project? Could any data or tools resulting from the project have the potential to be used to answer new research questions by future medical students?

Optimize curriculum and conduct OSCE.

Please follow the link below and complete the archival process for your Project in addition to submitting your final report.

https://ohsu.ca1.qualtrics.com/jfe/form/SV_3ls2z8V0goKiHZP

Student's Signature/Date *(Electronic signatures on this form are acceptable.)*
This report describes work that I conducted in the Scholarly Projects Curriculum or alternative academic program at the OHSU School of Medicine. By typing my signature below, I attest to its authenticity and originality and agree to submit it to the Archive.

X

Student's full name

Mentor's Approval *(Signature/date)*

X

Mentor Name

Scholarly Project Final Report

Report*: Information in the report should be consistent with the poster, but could include additional material. Insert text in the following sections targeting 1500-3000 words overall; include key figures and tables. Use Calibri 11-point font, single spaced and 1-inch margin; follow JAMA style conventions as detailed in the full instructions.*

Introduction *(≥250 words)*

The average life expectancy among U.S. adults has increased by 31 years since 1900.[2] Public health measures and improved social conditions have had the greatest impact on this increase, but medical advancements have also played a significant role.[3] As the average human lifespan lengthens and chronic diseases become more manageable, the incidence of comorbidity also increases, particularly in our elderly population. These chronically ill patients, who already exhibit high health-care utilization, tend to experience a spike in health-care utilization during the last 3 months of their lives.[4] Those who spend time in the ICU at the end of their lives report a discordance between their personal goals of care and the aggressive treatments they receive. Additionally, prolonged ICU stays place a huge financial burden upon the patient and the medical system at large.[5] These factors highlight the importance of eliciting each patient's palliative care values and goals before they reach that final stage of their illness.

Primary palliative care discussions involving advanced care planning (ACP) and goals of care (GOC) are considered important by both physicians and patients, but these discussions often do not take place until patients are acutely ill and life-saving decisions must be made quickly. Physicians tend to fall short in this regard, reporting perceived barriers such as lack of training, lack of time during visits, personal discomfort with the topics of death and dying, and fear of patients losing hope in overcoming their illness. This is especially important, as it has been shown that patients regularly participating in these conversations are more likely to have a stronger clinician-patient relationship, higher likelihood of receiving care consistent with their preferences, and ultimately better outcomes.[1]

This project aims to address these barriers at the earliest level of medical training by determining OHSU medical students' perceived barriers to facilitating end-of-life (EOL) and goals of care (GOC) discussions in their future practice, identifying the level of (and disparities in) formal EOL and GOC discussion training among OHSU medical students, and examining ways to improve these disparities.

Methods *(≥250 words)*

This project was a cross-sectional survey study of OHSU medical students regarding their prior experience(s) with, knowledge about, and perceived barriers to ACP, GOC, and/or palliative care discussions. The study population included all medical students enrolled at OHSU during academic year 2022-2023, with a total of 49 survey responses collected. The sample was analyzed as a collective before being divided into four subgroups for analysis, which were based on the participant's year in medical school: MS1, MS2, MS3, and MS4.

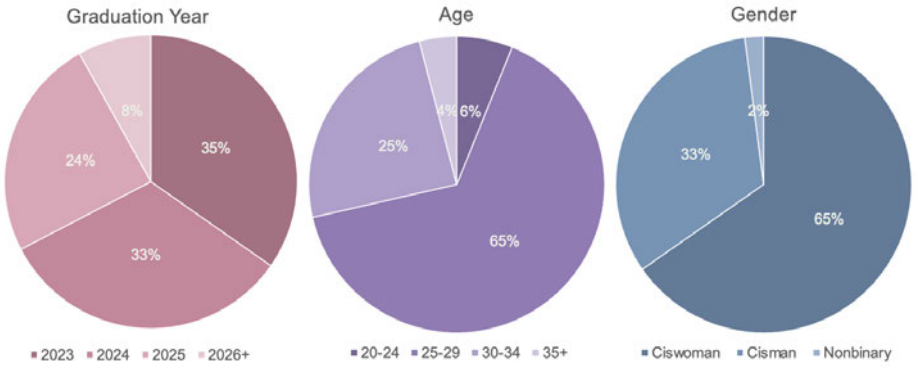
This was a mixed-method study involving quantitative and qualitative data. Demographic data including graduation year, age (reported in ranges), sex assigned at birth, and gender identity were collected to assess whether the sample was representative of the target population.

Quantitative data were collected using a 5-point Likert scale, which assessed for perceived importance of GOC/EOL discussions by specialty, how often participants had observed these discussions in practice, how many GOC/EOL-focused training hours they had received during their medical training, and how confident they felt about independently leading these discussions.

Qualitative data retrieved from the survey explored prior experiences (before medical school) involving GOC/EOL discussions, participants' understanding of the differences between GOC and EOL discussions, and their perceived barriers to facilitating these discussions. The survey also asked participants to share suggestions for improving the current curriculum. The survey was piloted and pre-tested prior to dispersal with the help of OHSU palliative care providers and recent OHSU graduates. The survey was developed and managed using Qualtrics software. Data analysis was performed manually by the student.

Results *(≥500 words)*

Fig. 1 Demographics of survey respondents (n = 49)



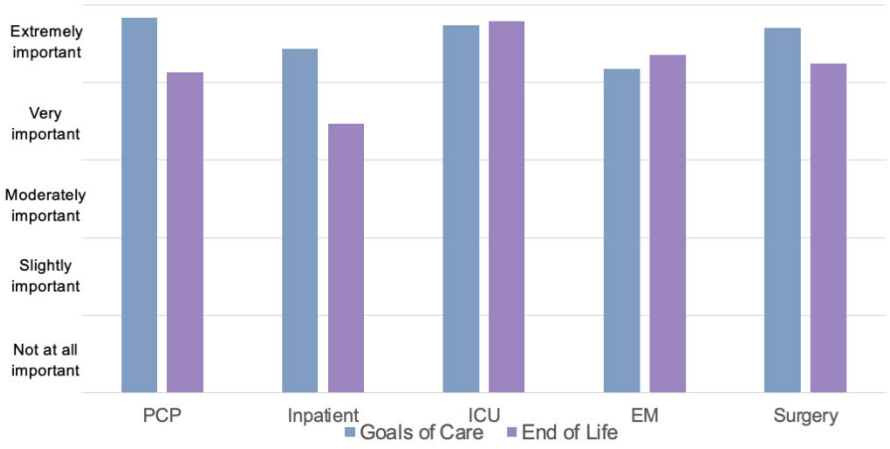
As shown in Fig. 1, all current medical school classes were represented in the study sample, with the lowest number of participants (n = 4) in the 2026+ graduating class. The majority (65%, n = 32) of participants were between the ages of 25-29. The sample population's 65% predominance of women-identifying participants closely matches the overall OHSU M.D. population, as reflected in the OHSU Enrollment Report from Fall 2022 which found that women made up 65% of the total OHSU M.D. cohort.

37 of 49 participants reported having some kind of prior experience with GOC or EOL discussions, whether in a classroom setting, work environment, pre-clinical curriculum, or clinical rotation(s). Despite this, they rated their depth of involvement in these activities as "cursory". 20 of 49 participants reported previously working in a capacity that involved observing and/or actively participating in GOC/EOL discussions. These job experiences included: Medical scribe (n = 5), EMS professional (n = 4), CNA (n = 3), caregiver (n = 2), hospice worker (n = 2), clinical researcher (n = 2), nurse, and hospital chaplain intern. When asked to describe the skills they developed as a result of participating in these job experiences, participants reported communication-based skills (quiet/comfortable setting, active listening, open-ended questions, patient-appropriate language) and spiritual/emotional skills (respecting patient autonomy, including family in care, involving chaplain services), as well as general knowledge about principles of palliative care, hospice services, POLST forms, and code status.

Participants were prompted to share their understanding of the difference(s) between GOC and EOL discussions, which yielded a variety of responses. The most common difference described by survey respondents was that EOL discussions specifically pertained to patients who are dying, while GOC

discussions could be initiated for any patient to help guide future treatment decisions. Both GOC and EOL discussions were recognized as ways to facilitate shared decision-making and encourage patient-centered care. Several participants described GOC discussions as a preamble for EOL discussions in chronically ill patients; used to prepare patients for subsequent conversations about their wishes surrounding their impending death. Three participants expressed limited understanding of the topic.

Fig. 2 Perceived Importance of GOC and EOL Discussions by Specialty



As illustrated in Fig. 2, survey respondents considered both GOC and EOL discussions to be extremely important in the primary care setting, ICU, ED, and peri/pre-operatively. Of note, GOC discussions were considered more important than EOL discussions in the inpatient setting for non-critically ill patients, but EOL discussions were still rated as "very important" even in this case.

Participants also reported that they expect to engage in these discussions "often" in their future practice, but that they had observed resident and/or attending physicians engaging in these discussions only "about half the time". When asked about perceived barriers that could prevent these discussions from happening, 25 of 49 participants cited lack of time as the major factor and 16 of 49 noted patient/physician discomfort with the topic. Other barriers included the fear of patient and/or family losing hope, pre-existing assumptions about patient's goals/values, and differences in cultural background that could interfere with open communication.

Fig. 3 Self-Reported Training Hours by Graduation Year (% of respondents)

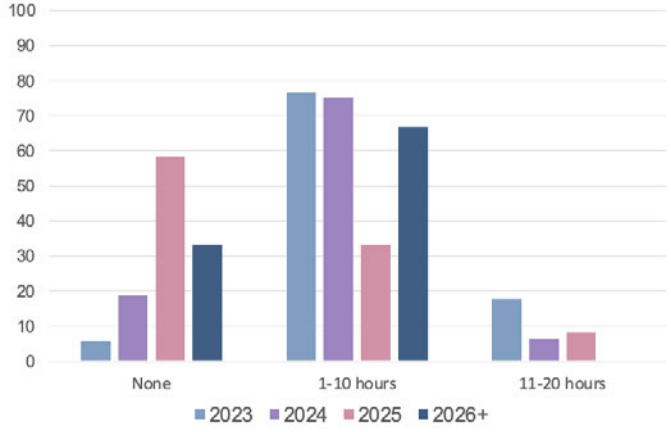


Fig. 3 shows a subgroup analysis of self-reported training hours completed as part of the required OHSU medical curriculum. About 65% participants reported undergoing between 1-10 hours of GOC/EOL training, while 25% had none. It is important to note that the 2025 and 2026+ graduating classes had not yet completed the required clinical skills lab(s) and OSCE pertaining to advanced care planning (ACP) and "breaking bad news". On a scale of "extremely confident" (0) to "extremely unconfident" (5), the average participant reported feeling "neither unconfident nor confident" (2.07 +/- 1.30) about leading a GOC discussion but were "somewhat unconfident" (1.57 +/- 1.38) about independently leading an EOL discussion.

Suggestions for improving the current curriculum included adding more opportunities to practice these discussions with simulated patients and/or classmates (n = 25), expanding pre-clinical and clinical elective options, integrating these topics longitudinally over the course of medical training, and normalizing/encouraging physicians to involve students in care conferences whenever possible.

Discussion *(≥500 words)*

Physicians commonly report perceived barriers to conducting goals of care and/or end-of-life discussions that include lack of training, lack of time during visits, personal discomfort with the topics of death and dying, and fear of patients losing hope in overcoming their illness.[1] According to the survey results, these perceived barriers are also reflected in the OHSU MD student population despite these discussions being considered "extremely important" to patient care regardless of practice setting, which indicates a pervasive weakness in medical training for preparing future physicians to lead these discussions. This is supported by the fact that 85% of survey participants had spent < 10 hours of total required curricular time dedicated to these topics and reported feeling "somewhat unconfident" about independently leading an end-of-life discussion. This indicates a need for further implementation of EOL curriculum during medical school, giving doctors-in-training the opportunity to practice and hone these skills at an earlier stage of their career. It is clear that OHSU MD students agree, as survey respondents overwhelmingly requested more time to be dedicated to practicing these discussions in simulated settings and expressed interest in having increased elective options to explore these topics in depth, as well as implementing a longitudinal GOC/EOL curriculum throughout all 4 years of medical school.

Another notable finding is that OHSU MD students reported only seeing these discussions happening "about half the time" in clinical practice, which again reflects the national data. These data have also shown that that while physicians do not frequently hold palliative care discussions with their patients, patients who do have these conversations report stronger relationships with their healthcare provider, increased quality of EOL care, reduced intensity of EOL care, and reduced cost of EOL care.[5,6] These improved outcomes support the addition of EOL and GOC discussions into the routine care of every patient, whether they are being treated in a clinic or hospital setting. Normalizing these conversations would also aid in decreasing the level of discomfort that physicians tend to feel when broaching the topic of death and dying with their patients. Ultimately, this could result in a medical system that produces more goal-concordant outcomes for patients, while also cutting down on the cost of prolonged hospital and ICU stays at the end of life.[5,6]

This study has several drawbacks including the relatively small sample size, although the demographic data aligned well with the OHSU MD student population as previously outlined in the results section. There is also a component of self-reporting bias, as students with prior experience in GOC/EOL discussions may

have been more likely to complete the survey. Given the cross-sectional nature of this study, it did not provide information about effective strategies to improve students' confidence in leading GOC/EOL discussions. Further work needs to be done to optimize the current curriculum and conduct an OSCE with pre- and post-test comparison to assess for improvements in the participants' understanding of these topics and gauge their confidence in leading patients through these discussions.

Conclusions *(2-3 summary sentences)*

OHSU M.D. students consider GOC and EOL discussions important for their future practice regardless of specialty, but do not feel confident they could independently lead these discussions due to lack of exposure and training. This indicates a need for increased curricular time dedicated to practicing these discussion skills in classroom settings and/or simulated patient encounters.

References *(JAMA style format)*

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