OU WB School of MEDICINE

OAKLAND UNIVERSITY WILLIAM BEAUMONT

Death Exposure Influence on Medical Students' Attitudes Toward End-of-Life Care

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Introduction

- Advance directives are documents that were created in 1976 with the intent to dictate a patient's wishes and designate a surrogate decision maker for end-of-life health care choices.[1] Their purpose is to protect patients' autonomy, or ability to have control over their own body, in times where they are incapacitated or otherwise incapable of consenting to procedures such as intubation or feeding tubes.
- Physicians often encourage high-intensity interventions even when patients might be more amenable to palliative measures.[2] At the same time, physicians themselves are requesting to avoid aggressive, life-sustaining treatments at the end of their lives. Despite this, they are also receiving high-intensity measures.
- By studying end of life preferences before and after clinical exposure, we will gain knowledge regarding the development of opinions pertaining to end-of-life care during physicians' education. The information determined in this study will help add to the expanding data surrounding what needs to be done to better the care given to patients and to improve upon discussions regarding end-of-life planning and decision making.
- More knowledge about the opinions of physicians in training will help us to understand practicing physicians' actions regarding advance directives and end-of-life care. We can hope to apply this information to future education that will enhance the discussion surrounding end-of-life care and well-being of patients.[3]

Aims and Objectives

- This project seeks to determine if there is a difference in response of OUWB School of Medicine students to advance directives between the end of their second year, before many have experienced the death of patients, and the end of their third year, where they will have increased exposure to end-of-life decision making with hospital rotations.
- Examine differences in attitudes regarding advance directives in medical students followed through their second and third year at OUWB School of Medicine; the relationship between exposure to end-of-life care and responses to advance directive questions.
- The results of this research would help to end-of-life care and the opinions of medical students about what is important regarding their own care at the end of life. The information collected in this study could impact how we educate physicians about end-of-life care by including it earlier, or more frequently, in the curriculum.

Methods

Study Design

- 400 medical students from all four classes at OUWB School of Medicine received an anonymous survey about advance directives and end of life experiences and opinions with items adapted to utilize Likert responses. The 254 responses were then divided based on responses prior to descriptive statistical analysis using two-sample t-tests and Fisher's Exact tests.

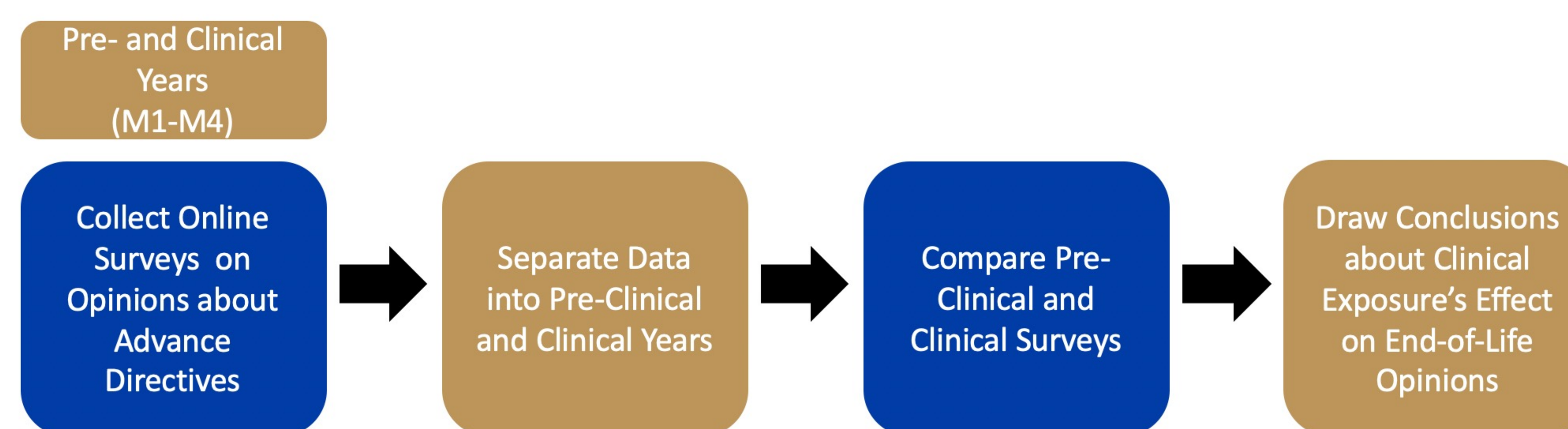

Figure 1: Tracking Changes of Opinions Pertaining to End-of-Life Care in OUWB Medical Students. The process of collecting and analyzing data related to how clinical exposure in medical school impacts opinions on end-of-life care is depicted here. M1 represents the first year of medical school and M4 represents the fourth year. Pre-clinical pertains to the first two years of medical school prior to clinical rotations and clinical represents the last two years of medical school when students are in clinical rotations in the hospital.

Results

- Compared to the pre-clinical group, the clinical group showed no statistically significant differences in opinions regarding advanced directives. There was a significant increase in end-of-life experiences from pre-clinical to clinical years (44% to 76%, $p < 0.001$).
- Compared to those who have not executed an advance directive (n=247), those that have (n=7) preferred a higher level of comfort care in a vegetative state (4.43±0.53, p=0.031). Compared to those who have not been given durable power of attorney (DPA) (n=235), those that have been given DPA prefer less aggressive nutrition management when terminally ill (2.05±0.85, p =0.048).

Variable	Pre-Clinical (n=203)	Clinical (n=51)	P-value
Terminal Life	3.51 ±1.22	3.16±1.43	0.073
Terminal Nutrition	2.61±1.24	2.49±1.14	0.544
Terminal Life+Nutrition	6.12±2.18	5.56±2.20	0.170
Terminal Comfort	4.27±0.90	4.43±0.83	0.250
Vegetative Life	1.98±1.18	1.71±0.99	0.126
Vegetative Nutrition	1.85±1.04	1.71±1.01	0.383
Vegetative Life+Nutrition	3.83±2.05	3.41±1.91	0.191
Vegetative Comfort	3.89±1.18	3.84±1.49	0.847

Figure 2: Changes in Medical Students' Opinions Between Pre-Clinical and Clinical Years. The table depicts the comparison of the pre-clinical and clinical cohorts, with n representing the number of individuals in each group. The variables are questions regarding terminal and vegetative end of life care with Likert responses from 1-5. Results of two sample t-test show no statistical significance between opinions on advance directives before and after clinical experiences.

Variable	Have Not Considered End of Life Care (n=63)	Have Considered End of Life Care (n=191)	P-value
Terminal Life	3.81±1.08	3.32±1.30	0.008
Terminal Nutrition	2.92±1.22	2.47±1.20	0.011
Terminal Life+Nutrition	6.73±2.07	5.79±2.18	0.003
Terminal Comfort	4.27±0.77	4.31±0.93	0.732
Vegetative Life	2.48±1.31	1.74±1.03	<0.001
Vegetative Nutrition	2.21±1.15	1.69±0.96	<0.001
Vegetative Life+Nutrition	4.68±2.31	3.43±1.83	<0.001
Vegetative Comfort	3.68±1.24	3.94±1.24	0.151

Figure 3: Changes in Opinions Between Medical Students Who Have and Have Not Considered End-of-Life Care. The table depicts the comparison of those who have and have not considered end of life care, with n representing the number of individuals in each group. The variables are questions regarding terminal and vegetative end-of-life care with Likert responses from 1-5. Results of two sample t-test show statistically significant changes in all questions, except for terminal and vegetative comfort.

Conclusions

- There was no statistically significant change in opinions between pre-clinical and clinical years in medical students.
- End-of-life experiences increased upon clinical exposure.
- Statistically significant changes were seen when comparing those that had not considered there own end of life care and those that had. These showed a preference for less aggressive care.
- The strong association between an increase in end of life consideration and a preference less aggressive terminal and vegetative care may indicate that students received more education regarding end-of-life care prior to the beginning of clinical rotations, which may have impacted opinions.
- Results could indicate that experiences AND reflection are responsible for changes in opinions. Further studies are needed.
- The lack of survey responses in the clinical group may have impacted this studies ability to determine significance in changes in opinions.
- Further studies should be done at OUWB to determine if end-of-life opinions change in the first two years with education regarding end of life care.

References

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