

## **PRAC Assessment Grant Final Report**

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Assessing the Effect of an Ethics Course on Undergraduate Students' Ethical Judgement

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## Project Summary

Over the past three decades, significant progress has been made toward requiring ethics education in health sciences undergraduate curriculum; however, ethics courses are still not required at all universities [1-2]. The need for ethics education in the health care field is important for students to learn to identify ethical dilemmas and to develop ethical reasoning skills that they will need when they enter clinical practice [2].

Measuring the effect of an ethics course on undergraduate students' ethical judgement and ability to approach and resolve ethical dilemmas is important to answer the question of whether ethics courses ought to be taught at the undergraduate level and how ethics courses should be taught. As health care ethics education has traditionally focused on medical students, there are very few published studies that assess the effect of health care ethics courses on undergraduate students' understanding and approach to ethical dilemmas. Thus, there is a need for this type of assessment.

The project provides both a quantitative and qualitative assessment of the impact of an ethics course on students' understanding and approach to ethical dilemmas. This assessment is important for health care ethics educators, schools offering health care related undergraduate degrees, and students pursuing health care related undergraduate degrees because this project provides insight into the value of ethics curriculum at the undergraduate level for students in the health care field. Additionally, this project provides information on how ethics education at the undergraduate level can be improved to provide new pathways to learning. Specifically, this project provides much needed information on whether a course specifically dedicated to health care ethics contributes to student learning of the IUPUI, PUL 6: Values and Ethics, which aims to help students make sound decisions.

## Data Collection Methods and Analysis

A cohort design was utilized which includes approximately ninety ( $n = 90$ ) Health Sciences undergraduate students enrolled in W363, an introductory health care ethics class taught during the fall of 2016 and 2017. The course is designed to equip students to identify and reason through ethical dilemmas in the health care field. Additionally, students in this course are encouraged to engage in self-introspection throughout the semester in order to discover their own ethical baseline. Additionally, students are also taught to examine ethical dilemmas from every prospective.

In order to assess whether this undergraduate ethics course is successfully teaching ethical competency, a mixed methods approach was utilized. In order to obtain quantitative data, students were administered the Ethics and Health Care Survey Instrument (EHCSI) at the beginning and end of the semester (instrument attached in the appendix). The EHCSI is a validated assessment tool consisting of 12 ethical case vignettes involving a health care dimension [4]. The vignettes feature ethical dilemmas in which there is a broadly shared, ethically acceptable answer among medical ethicists. In order to obtain qualitative data, students were asked a series of 10 open-response questions about their confidence in relation to

confronting and resolving ethical dilemmas in clinical practice and the impact of the ethics course on their understanding and approach to ethical dilemmas.

At both the beginning and end of the semester, students EHCSI scores were recorded. Additionally, at the end of the semester, students were given the qualitative open-response questions. Results of all students EHCSI scores at the beginning of the semester and the end of the semester were statistically analyzed and compared using the Wilcoxon rank-sum test in order to identify whether there is a significant relationship between a change in students' ethical competency and the ethics class. In order to identify areas whether there was movement in the students' ethical values from the beginning of the semester to the end of the semester, the McNemar's test was applied. The statistical analysis presented in this project are consistent with EHCSI instrument analysis [5-6]. Qualitative responses were coded using Nvivo qualitative data software and analyzed using emergent thematic analysis, a validated qualitative coding system which is appropriate for this type of assessment [7-9].

### **Obstacles/ Challenges Encountered**

Assessing students presents a unique set of challenges. First and foremost, the survey could not be administered by me, as the instructor because it presented the possibility of preceded coercion that the students may feel obligated to participate in the study. Additionally, as the instructor, being present, I did not want to inadvertently persuade students to answer in one way or another. A second obstacle was maintaining participation in the survey. When students were given the option to participate, there were more students who participated on day one than during the post survey. I believe this may be due to students feeling exhausted at the end of the semester and choosing to leave class early rather than sit and take a survey that they have already taken at the beginning of the semester. Although there were challenges to completing the study, surveying my students was intriguing, as they provided interesting insight into the value of an ethics course on their moral judgement and ability to rationalize health care decisions.

### **Project Accomplishments**

The preliminary results of this project have thus far been presented at an IUPUI Health and Life Sciences conference. As the first semester that data was collected had interesting results, the study was extended by another semester. Currently, the introduction and methodology sections of a manuscript is being written while data from the most recent semester is being collected. It is my intention to submit an abstract of the final results to a bioethics conference and to submit the manuscript to a bioethics journal. In addition to the scholarly accomplishments of this study, as the professor, I learned the value of my course, as well as areas that could be improved upon for future cohorts of students.

**Project Impact**

Up this projects conclusion, a unique contribution will be made to the area of bioethics education, as undergraduate bioethics education has not been well studied. The results of this project show the value of undergraduate bioethics education and the need for more Health Sciences programs to adopt bioethics courses. Additionally, this project impacted my course as it allowed me a different prospective on my student's education. Rather than merely relying on comments during student courses evaluations, this project allowed me to quantitatively measure whether my students were learning. Additionally, I was able to glean insight into what areas of my teaching need improvement, as well as what areas I am excelling.