

ORIGINAL ARTICLE

Examining Medical Student Attitudes Towards Physician-Assisted Suicide

Kevin Gabel*, Saul Miller*, Jeffrey So*, Andrew Suess*

ABSTRACT:

Physician-assisted suicide (PAS) is a highly debated issue. The Sue Rodriguez case highlighted the importance and the contentious nature of this issue in our society today. This study assessed attitudes towards PAS held by first and fourth year medical students at the University of Western Ontario via a 13 question anonymous survey. One hundred and twenty-four surveys were returned with a response rate of 53%. Respondents, especially those in fourth year, were unwilling to aid in PAS in the capacity of physicians (63% overall unwilling; $P = 0.004$). They wanted PAS to be an option, however, if they were patients themselves (64% overall; $P = 0.002$). A variety of factors were considered important in making decisions regarding PAS, especially a patient's clear understanding of medical management options. Most respondents welcomed (39%) or were neutral (45%) towards legalization of PAS. Opinions towards PAS tended not to change over the course of medical school (72% overall; $P < 0.001$). Students generally favoured the concept of PAS as long as they did not have to take part in it themselves. Although no differences between first and fourth year medical students were detected concerning their opinions towards PAS, willingness to participate may be affected by personal experience with patients.

KEY WORDS: physician assisted suicide, medical student, terminally ill, attitudes

INTRODUCTION

Decisions regarding end of life care are highly charged and of great importance, particularly in our aging society. Physician-assisted suicide (PAS) continues to generate significant controversy. It occurs when a physician facilitates a patient's death by providing the necessary means to enable a patient to perform the life-ending act (1). It has become more important in recent years; advances made in medicine and the ability to extend life longer than ever before raise questions surrounding the morality and ethics of PAS. One notable instance involving PAS is that of British Columbian Sue Rodriguez, an individual

diagnosed with amyotrophic lateral sclerosis who wished to have the aid of a physician in ending her life. This sparked fierce debate from individuals who held differing views surrounding the topic. Ms. Rodriguez's attempts to strike down the law making PAS illegal in Canada found their way before the Supreme Court of Canada. There was a majority decision by the Court to uphold the law (2). Currently, PAS is not legal in Canada; Oregon, in 1994, was the first American state to legalize PAS.

Surveying medical students is instructive because it is likely that identities and attitudes as physicians are influenced by early experiences (3). In a recent American study, 20% of fourth year medical students said they received a request for a lethal drug prescription in the past year, indicating that exposure to this ethical dilemma is not uncommon (4).

* These authors contributed equally to this work.

To whom correspondence should be addressed: Schulich School of Medicine, University of Western Ontario, London, Ontario N6A 5C1, Canada.

An American study by Warner et al. found that medical students did not wish to participate in the PAS process and generally opposed the idea of suffering patients prematurely ending their own lives (3). Social science students in Hungary, however, who had the least experience interacting with terminally ill patients when compared to other participants in the same study, were most in favour of legalizing PAS, while Hungarian nurses who cared for terminally ill patients on a regular basis were most opposed to PAS (5).

There is a dearth of data regarding medical student opinions in Canada on PAS. Furthermore, only a few studies have compared students in different years of medical school. A Puerto Rican study by Ramirez et al. found that medical students were more agreeable than medical residents to the idea of legalizing PAS (6). In a separate study, Ramirez et al. found first year medical students to be more accepting of PAS than third year medical students (7). In this study, we sought to determine and compare attitudes and opinions of first and fourth year medical students in a Canadian medical school towards PAS.

METHODS

Study Design

Attitudes were assessed via a survey administered to first and fourth year medical students at the University of Western Ontario (UWO) in London, Ontario, Canada. The surveys were given to students at the beginning of a lecture and collected at the end of the session. No incentive was offered for participation in the study. The survey was administered in March, 2004 when first year students had completed seven months of lecture-based training, while fourth year students had completed two years of lecture-based training, as well as nearly two years of clinical training in the hospital setting.

Survey Instrument

Thirteen questions were used to assess student attitudes towards PAS (see Appendix 1). Demographics collected included age bracket, gender and year of medical school. Attitudes were gauged via a four point Likert scale with choices ranging from strongly agree to strongly disagree; in two questions, options for neutrality or no opinion change were also included. The definition of PAS was provided at the top of the survey as stated above. The questions were chosen to determine students' attitudes towards PAS, and whether differences existed at the first and fourth levels of training. In addition, factors deemed important in making decisions regarding PAS were assessed. These included the age of the patient, persistence of the patient's request, obtaining more than one medical

opinion, a clear understanding by the patient of medical management options, the patient's prospects for improvement, obeying the law, respecting patient autonomy, and alleviating suffering. Prior to administration, the survey was tested on five second year medical students who were not part of the sample populations; feedback was received regarding the clarity of the questions and the layout of the survey.

Approval for the study was granted by the Research Ethics Board of the Faculty of Medicine and Dentistry at UWO. The survey was anonymous, preserving student confidentiality. Participation in this study was optional.

Statistical Analysis

The results of the survey were tabulated and analyzed. A P-value of less than 0.05 was considered to be statistically significant. Two study groups were identified: first year medical students and fourth year medical students. These two groups were compared. Comparisons were also made based on age and gender. Where significant differences were found, results were identified. T tests were used to compare Likert score averages between years of study, and between genders. Single factor ANOVA was used for age based comparisons. The chi-squared test was used to assess the significance of agreement or disagreement based on a presumed equal distribution of responses.

RESULTS

Sample Characteristics

We administered the survey to a total of 236 students. We received responses from 72 students (54%) in the first year class and 52 students (51%) in the fourth year class. The final study group consisted of 124 students (overall response rate 53%), 53 (44%) of whom were male (Table 1).

Outcomes

Approximately half of all respondents entered medical school with a clearly defined opinion on PAS

Table 1. Demographics of the students surveyed

| | First Year Students | Fourth Year Students |
|----------------------|---------------------|----------------------|
| Number | 72 | 52 |
| Male | 30 (42%) | 23 (44%) |
| Female | 40 (56%) | 28 (54%) |
| Gender not specified | 2 (3%) | 1 (2%) |
| Age 20-22 | 25 (35%) | 0 |
| Age 23-25 | 45 (57%) | 16(31%) |
| Age 26-28 | 5 (7%) | 32 (61%) |
| Age 29+ | 1 (1%) | 4 (8%) |
| Age not specified | 1 (1%) | 0 |

Table 2. Factors in making decisions about PAS

| Factor | Students considering factor to be important | | | P-value (all) |
|---------------------------------------------|---------------------------------------------|----------|----------|---------------|
| | All | 1st year | 4th year | |
| Age of patient | 51 (42%) | 31 (44%) | 20 (38%) | 0.07 |
| Persistence of request | 80 (65%) | 42 (58%) | 38 (73%) | <0.001 |
| Legality | 108 (89%) | 61 (87%) | 47 (90%) | <0.001 |
| Patient's prospects for improvement | 110 (90%) | 67 (93%) | 43 (84%) | <0.001 |
| Obtaining >1 medical opinion | 114 (92%) | 66 (92%) | 48 (92%) | <0.001 |
| Patient autonomy | 118 (95%) | 69 (96%) | 49 (94%) | <0.001 |
| Patient understanding of management options | 119 (96%) | 70 (97%) | 49 (94%) | <0.001 |
| Alleviating suffering | 117 (96%) | 69 (97%) | 48 (94%) | <0.001 |

Apparent discrepancies between numbers and percentages are a result of some students not responding to all questions.

(57 respondents (46%)). Overall, respondents were unwilling to participate in PAS in the role of a physician (75 respondents (63%) unwilling to participate; $P=0.004$). There were significant differences related to year of study, with the fourth year class less willing to participate in PAS (35 first year students (51%), 9 fourth year students (17%) willing to participate; $P<0.001$). When asked whether they would want PAS to be an option as a patient, a significant proportion of respondents supported this notion (77 respondents (64%) support; $P=0.002$).

Participants considered most of the factors surveyed to be important in making decisions regarding PAS (Table 2). Students considered patient understanding of medical management options to be the most important of the factors assessed (85 respondents (69%) strongly agreed versus 62 respondents (51%) strongly agreed with the importance of alleviating suffering, the second most important factor; $P=0.003$). Males more strongly considered patient's prospects for improvement to be an important factor (50 males (94%), 57 females (85%) considered this important; $P=0.01$).

Most students' opinions towards PAS did not change over the course of medical school (89 respondents (72%) did not change; $P<0.001$). Of those students whose opinions did change, significantly more people became in favour of PAS (26 respondents (74%) became in favour, 9 respondents (26%) became opposed; $P=0.004$). Most students welcomed or felt neutral about the legalization of PAS (48 respondents (39%) welcomed, 55 respondents (45%) felt neutral). Males were more likely than females to welcome PAS legalization (28 males (53%), 18 females (27%) welcomed legalization; $P=0.001$).

DISCUSSION

This survey was designed to address medical student attitudes towards PAS and explore differences related to age, gender and year of study. Approximately half of the respondents entered medical training with a clearly defined opinion on PAS, the majority of whom did not change their opinions over the course of medical school. This was noted in both the first and fourth year classes, indicating that perhaps the clinical exposure in years 3 and 4 does not have a major impact on attitudes towards PAS. Where opinions did change, students became more in favour of PAS.

While nearly two thirds of the students surveyed stated they would want PAS to be an option as a patient, they would not be willing to participate in the process as physicians. In addition, it was noted that most students were not opposed to legalization. Taken together, these data suggest that most medical students were not opposed to the concept of PAS as long as they did not have to take part in it as physicians. In future studies, it may be useful to determine the reason behind the difference in the number of students supporting the legalization of PAS and the number willing to participate in the process themselves.

Fourth year students were significantly less willing to participate in PAS compared to first year students. This suggests that more senior medical students are less willing to actually participate as physicians in PAS, although their opinions about PAS itself do not change. Respondents considered most factors examined in the survey to be important in making decisions regarding PAS. This highlights the complexity of PAS and numerous considerations that need to be taken into account when making decisions about the issue.

Most of the current literature suggests that the majority of medical students support the legalization of PAS (4, 5, 6, 7). The data from this investigation are consistent with the aforementioned studies. Only the study by Warner et al., which showed medical students' opposition to PAS, indicated differently (3). In keeping with this study, previous research demonstrated that although medical students may be agreeable to the concept of PAS, few are willing to participate in the process themselves (4, 6). In contrast with the results of this study are prior investigations performed in other countries, which suggested that acceptance of the concept of PAS is inversely proportional to an individual's amount of clinical experience. That is, those who have the least experience with patients have more accepting attitudes towards PAS (5,6).

Limitations to this study include a low response rate, potential response bias, and the observational nature of the study. The latter suggests that differences between the two classes may be compounded by factors other

than the respondents' year of medical school. Inference methods employed rely on the assumptions that this is a simple, random sample and that the underlying population distribution is normal; this may not have been the case. Despite its limitations, the study provides significant insight into the attitudes of medical students at different stages of medical training, as well as the factors that help them form these opinions.

ACKNOWLEDGEMENTS

We would like to express our gratitude to Dr. Jeffrey Nisker, Coordinator of Bioethics and Professor of Obstetrics and Gynaecology at the University of Western Ontario's Faculty of Medicine and Dentistry for his advice and encouragement. We would also like to thank Dr. Kathy Speechley, Associate Professor in the Department of Epidemiology and Biostatistics at the University of Western Ontario for her assistance in the design of our survey instrument.

REFERENCES

1. Council on Ethical and Judicial Affairs, American Medical Association. Decisions near the end of life. *JAMA* 267: 2229-2233; 1992.
2. Canadian Charter of Rights and Freedoms, section 7. Department of Justice Canada, (c) Department of Justice, Canada. Available from URL:<http://laws.justice.gc.ca/en/charter/>
3. Warner TD, Roberts LW, Smithpeter M, et al. Uncertainty and Opposition of Medical Students Toward Assisted Death Practices. *J Pain Symptom Manage.* 22(2):657-667; 2001.
4. Mangus RS, Dipiero A, Hawkins CE. Medical students' attitudes toward physician-assisted suicide. *JAMA* 282: 2080-2081; 1999.
5. Fekete S, Ovsath P, Jegesy A. Attitudes of Hungarian students and nurses to physician assisted suicide. *J Med Ethics* 28:126; 2002.
6. Ramirez RJ, Rodriguez R, Otero IY. Attitudes toward euthanasia, assisted suicide and termination of life-sustaining treatment of Puerto Rican medical students, medical residents, and faculty. *Bol Asoc Med P R.* 92(1-3):18-21; 2000.
7. Ramirez RJ, Ramos O. Euthanasia and relief of suffering: attitudes of medical students. *Bol Asoc Med P R.* 87(10-12): 164-166; 1995.

Kevin Gabel is a third year medical student at the University of Western Ontario. He obtained an Honours Bachelor of Science in Human Biology at the University of Toronto. His research interests are in the areas of endocrinology and urology. **Saul Miller** is a third year medical student at the University of Western Ontario. His interests include cardiology research. He graduated with an economics degree from York University. **Jeffrey So** is a medical student in the Class of 2006 at the University of Western Ontario. His research interests include gastroenterology and respirology. He graduated with a B.Sc. in Human Biology from the University of Toronto. **Andrew Suess** is a third-year medical student at the University of Western Ontario; undergraduate studies included biology at the University of Western Ontario and Human Biology at the University of Toronto. His research interests include both pediatric and adult cardiology.

APPENDIX 1. Survey instrument

Medical Student Attitudes Towards Physician Assisted Suicide

This survey is part of a second year bioethics research project regarding attitudes towards physician assisted suicide. For the purposes of the survey, physician assisted suicide occurs when a physician facilitates a patient's death by providing the necessary means to enable the patient to perform the life-ending act. For example, the physician prescribes pain killers and information about the potentially lethal dose, with the knowledge that the patient may commit suicide.

The survey is anonymous and participation is voluntary.

For each of the following statements, please circle whether you strongly agree, agree, disagree, or strongly disagree.

| | Strongly Agree | Agree | Disagree | Strongly Disagree |
|-------------------------------------------------------------------------------------------|-------------------|-------|----------|----------------------|
| 1. I entered medical school with a clearly defined opinion on physician assisted suicide. | 1 | 2 | 3 | 4 |
| 2. As a doctor, I would be willing to aid in physician assisted suicide. | 1 | 2 | 3 | 4 |
| 3. As a patient, I would want physician assisted suicide to be one of my options. | 1 | 2 | 3 | 4 |

The following eight statements concern decisions regarding physician assisted suicide. Indicate your level of agreement for each:

| | Strongly Agree | Agree | Disagree | Strongly Disagree |
|-------------------------------------------------------------------------------------|-------------------|-------|----------|----------------------|
| 4. The age of the patient is important. | 1 | 2 | 3 | 4 |
| 5. The persistence of the patient's request is important. | 1 | 2 | 3 | 4 |
| 6. Obtaining more than one medical opinion is important. | 1 | 2 | 3 | 4 |
| 7. A clear understanding by the patient of medical management options is important. | 1 | 2 | 3 | 4 |
| 8. The patient's prospects for improvement are important. | 1 | 2 | 3 | 4 |
| 9. Obeying the law is important. | 1 | 2 | 3 | 4 |
| 10. Respecting patient autonomy is important. | 1 | 2 | 3 | 4 |
| 11. Alleviating suffering is important. | 1 | 2 | 3 | 4 |

Please complete each of the following with the one phrase that best represents your opinion. Circle the letter of the response.

12. Over the course of medical school, I have:
 - a. become much more in favour of physician assisted suicide.
 - b. become somewhat more in favour of physician assisted suicide.
 - c. not changed my opinion towards physician assisted suicide.
 - d. become somewhat more opposed to physician assisted suicide.
 - e. become much more opposed to physician assisted suicide.
13. If physician assisted suicide was legalized I would:
 - a. strongly welcome the legislation.
 - b. welcome the legislation.
 - c. have neutral feelings towards the legislation.
 - d. be opposed to the legislation.
 - e. be strongly opposed to the legislation.

The following questions about you are needed for statistical purposes only:

14. In what year were you born?

15. What is your gender?

16. Please circle your year of medical school:

Meds 2007

Meds 2006

Meds 2005

Meds 2004

Thank you for your participation.