
Euthanasia, assisted suicide and end-of-life care: attitudes of students, residents and attending physicians

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Background: Attitudes in regard to end-of life issues are evolving in Western societies. We have sought to trace this evolution in the relatively homogeneous cultural setting of Puerto Rico.

Methods: One hundred fifty-two medical students, 62 medical residents and 84 members of three medical faculties were asked whether in terminally ill patients they: 1) would support a request for euthanasia(E); 2) if legalized, would engage in, would oppose or would not be opposed to others engaging physician-assisted suicide(PAS); 3) would consider ethical to prescribe full doses of drugs needed to alleviate pain, even if they knew it would hasten death; 4) would agree to limit certain resources for the terminally ill. Gender and religious affiliation were also requested.

Results: Twenty-eight percent of the students, 26% of the residents and 31% of the faculty supported E. Only 13% of the students, 18 % of the residents and

11% of the faculty would engage in PAS. Men were more willing than women to acquiesce to a request for E or PAS. Religious affiliation or its absence did not influence the support or opposition to E and PAS. If it would hasten death, 86 % of the residents, but only 65 % of the faculty considered ethical to prescribe the dose of drugs needed to alleviate pain. More than 2/3 of the students, residents and faculty favored the limiting of certain resources for the terminally ill.

Conclusions: In our cultural and medical environment, men are more willing than women to engage in E or PAS. The attitude towards E and PAS is not influenced by religious affiliation. If it hastens death, some still consider unethical to prescribe full doses of drugs needed to alleviate pain in the dying patient.

Key words: Euthanasia, Physician-assisted suicide, End-of-life care, Attitudes of students, Residents and Physicians

Euthanasia (E), physician assisted suicide (PAS) and end of life management are controversial bioethical issues in many Western societies. The Netherlands and Belgium have legalized voluntary E and PAS. In November 1994, Oregon, through a ballot initiative, became the first state to legalize PAS in the United States. Because of multiple court challenges a revised statute finally became operational in October 27, 1997 (1).

In 1996, the Ohio Supreme Court ruled that PAS was not a crime. At the present time, North Carolina, Utah and Wyoming have ceased to criminalize this physician intervention (2). In Virginia, anyone who assists in a suicide is subject to civil but not to criminal charges. In 2004 the 9th Circuit Court of Appeals refused attorney general

Ashcroft's request to reverse the lower court ruling of 1997 that permitted the practice of PAS to continue in Oregon. However, in February 2005 the US Supreme Court agreed to consider the proposals of the Bush Administration to outlaw PAS in Oregon, the case renamed *Gonzalez v. Oregon*. In January 2006 the United States Supreme Court affirmed the 9th Circuit Court ruling of 2004 which in effect permits the State of Oregon to continue its practice of PAS (www.Supremecourtus.gov/docket/04623). Clearly, physician-assisted suicide has become part of the medical practice horizon in the United States.

In 1995, medical students in the first, second and third year of the University of Puerto Rico School of Medicine answered 4 questions about end of life concerns. The sample size was 200 of a total of 309 students (3). Ninety three per cent knew the definition of euthanasia, but only 100 medical students knew the difference between "passive" and "active" euthanasia. Seventy per cent of those who knew the difference between "passive" and "active" euthanasia thought that "active" euthanasia should not be considered murder. Surprisingly, only 61% of third year students thought that physicians should

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“alleviate suffering when they cannot treat successfully an illness and death is imminent”.

Challenged by these observations, in 1996 we administered a 16-item questionnaire, published in 1994 by the American Medical Student Association (4), to 279 medical students, 75 medical residents and 35 internal medicine faculty members from three medical schools in the Commonwealth of Puerto Rico and their affiliated hospitals. At that time 40 % of the students, 33 % of the residents and 20 % of the faculty would support the practice of E (5). Ten per cent of the students, 12 % of the residents and 6 % of the faculty would be willing to directly engage in PAS. More importantly, 50 % of the students, 43 % of the residents and 45% of the faculty, while not willing to engage in PAS, were not opposed to others doing so. Seventy-nine per cent of the residents and 80% of the faculty, but only 54 % of the students, would consider ethical to prescribe full doses of drugs needed to alleviate pain in dying patients if they knew it would hasten death.

In order to study the evolution of the attitudes of Puerto Rican medical students and attending physicians on this end-of life issues we thought appropriate to repeat the same cross-sectional survey eight years later, but added a question about religious preference and analyzed the difference in attitude between men and women.

Subjects and Methods

Medical students, internal medicine residents and attending physicians in three medical schools and their affiliated hospitals answered a 16-item questionnaire published by the American Medical Student Association in 1994(4). A 17th item was added to this questionnaire seeking to identify the religious affiliation of the respondents. The questionnaire was handed out and collected individually in teaching rounds and faculty meetings within a two-month period (March 15 through May 15, 2004) in 4 teaching hospitals of three medical schools located in Río Piedras, Bayamón, Ponce and San Germán, in the north, south and southwest coast of the island of Puerto Rico.

Subjects were asked whether in terminally ill patients they: 1) would support a request for euthanasia; 2) if legalized, would engage in, would oppose or would not be opposed to others engaging physician-assisted suicide; 3) would consider ethical to prescribe full doses of drugs needed to alleviate pain,

even if they knew it would hasten death; 4) would agree to limit certain resources for the terminally ill. For each question they were also given the opportunity to claim ignorance or to not have an opinion. In addition they were asked to comment on their medical education in decisions concerning the end of life, to provide some personal demographic data and to state whether they were Catholic, Other Christian, Jews, Muslim or had no religious affiliation whatsoever. The significance of the observations was established using the Chi-square and Fisher tests. This project was reviewed and approved by the Committee for Human Investigations of the Universidad Central del Caribe.

Results

A total of 313 persons answered the questionnaire. Fifteen questionnaires were excluded because the gender or the level of education was not stated. The questionnaire was fully answered by 152 medical students, 62 medical residents and 84 members of the clinical faculty of Universidad Central del Caribe in Bayamón, University of Puerto Rico School of Medicine in San Juan, the Ponce School of Medicine and Hospital La Concepción in San Germán. Sixty three per cent of the interviewees were men (188) and 37 % women (110); 67.1 % were Catholics, 16.9 % Other Christian, 2.2 % Jewish.

Support for the request for euthanasia varied from 28 % among medical students, 26 % among residents and 31 % among the faculty (Table 1). Opposition to the request for

Table 1. Opinions of medical students, residents and faculty about euthanasia, assisted suicide, prescribing full doses of drugs to alleviate pain in dying patients and limiting resources for the terminally ill.

Issues	Students n (%)	Residents n (%)	Faculty n (%)	p-value
Support request for euthanasia	42 (27.6)	16 (25.8)	26 (31.0)	0.773
If legalized, would engage in physician-assisted suicide	20 (13.2)	11 (17.7)	9 (10.7)	0.634
If legalized, would not oppose others engaging in physician-assisted suicide	70 (46.1)	25 (40.3)	44 (52.4)	0.346
If legalized, would oppose others engaging in physician-assisted suicide	42 (27.6)	19 (30.6)	30 (35.7)	0.438
Prescribed full doses of drug to alleviate pain in dying patients	116 (76.3)	53 (85.5)	55 (65.5)	0.019*
Agree to limit certain resources for the terminally ill.	122 (80.3)	41 (66.1)	71 (84.23)	0.026*

* Statistically Significant

euthanasia was 49 % among medical students to 52 % among residents and to 62 % among the faculty. Some claimed to have no opinion on these subjects. Men were much more willing than women to acquiesce to a request for euthanasia (Table 2).

If it were legalized, 13 % of the students 18 % of the residents and 11 % of the faculty would be willing to

Not Affiliated. There was no significant difference in regards to their support of E or PAS between Catholics, non-Catholics and those who claimed no religious affiliation (Figure 2).

If they knew it would hasten death, 86 % of the residents, but only 66 % of the attending staff considered ethical to prescribe the dose of drugs needed to alleviate pain in a dying patient. (Table 1). Eighty percent of the students, 66% of the residents and 85% of the faculty would agree to limit certain resources for the terminally ill.

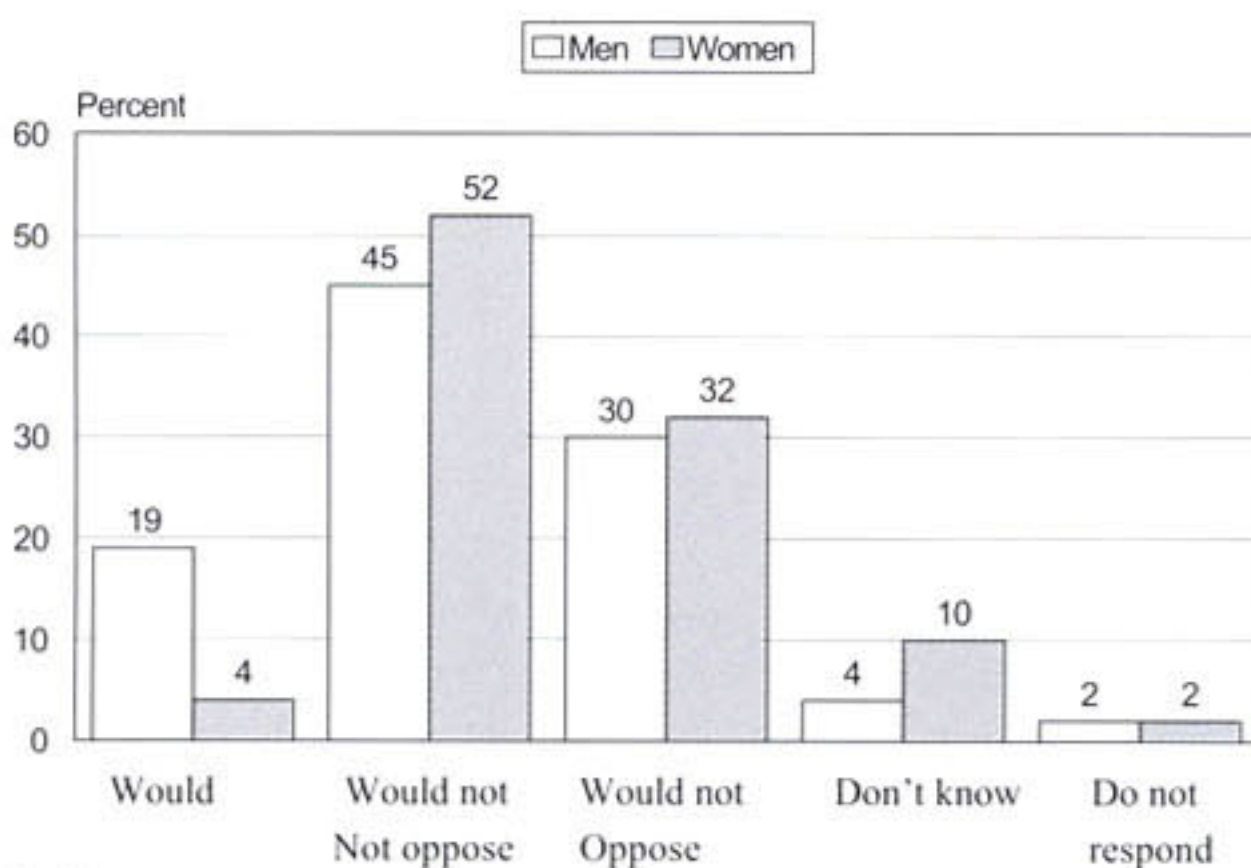
Table 2. Opinions about euthanasia and assisted suicide, by gender

Issues	Men n (%)	Women n (%)	Total n (%)	p-value n (%)
Support request for euthanasia.	64 (34.0)	20 (18.2)	84 (28.2)	0.005*
If legalized, would engage in physician-assisted suicide.	35 (18.6)	5 (4.5)	40 (13.4)	0.001*
If legalized, would not oppose others engaging in physician-assisted suicide.	85 (45.2)	57 (51.8)	142 (47.7)	0.281
If legalized, would oppose others engaging in physician-assisted suicide	56 (29.8)	35 (31.8)	91 (30.5)	0.794

* Statistically Significant

directly engage in PAS (Table 1). More importantly, 46 % of the students, 40 % of the residents and 52 % of the faculty, while not willing to engage, would not oppose others engaging in PAS. Only 28 % of the students, 31 % of the residents and 36 % of the faculty were flatly opposed to the practice of PAS. A significantly higher percentage of men would be willing to engage in PAS (Figure 1). More

Figure 1. Willingness to Engage in Physician Assisted Suicide, if Legalized, by Gender



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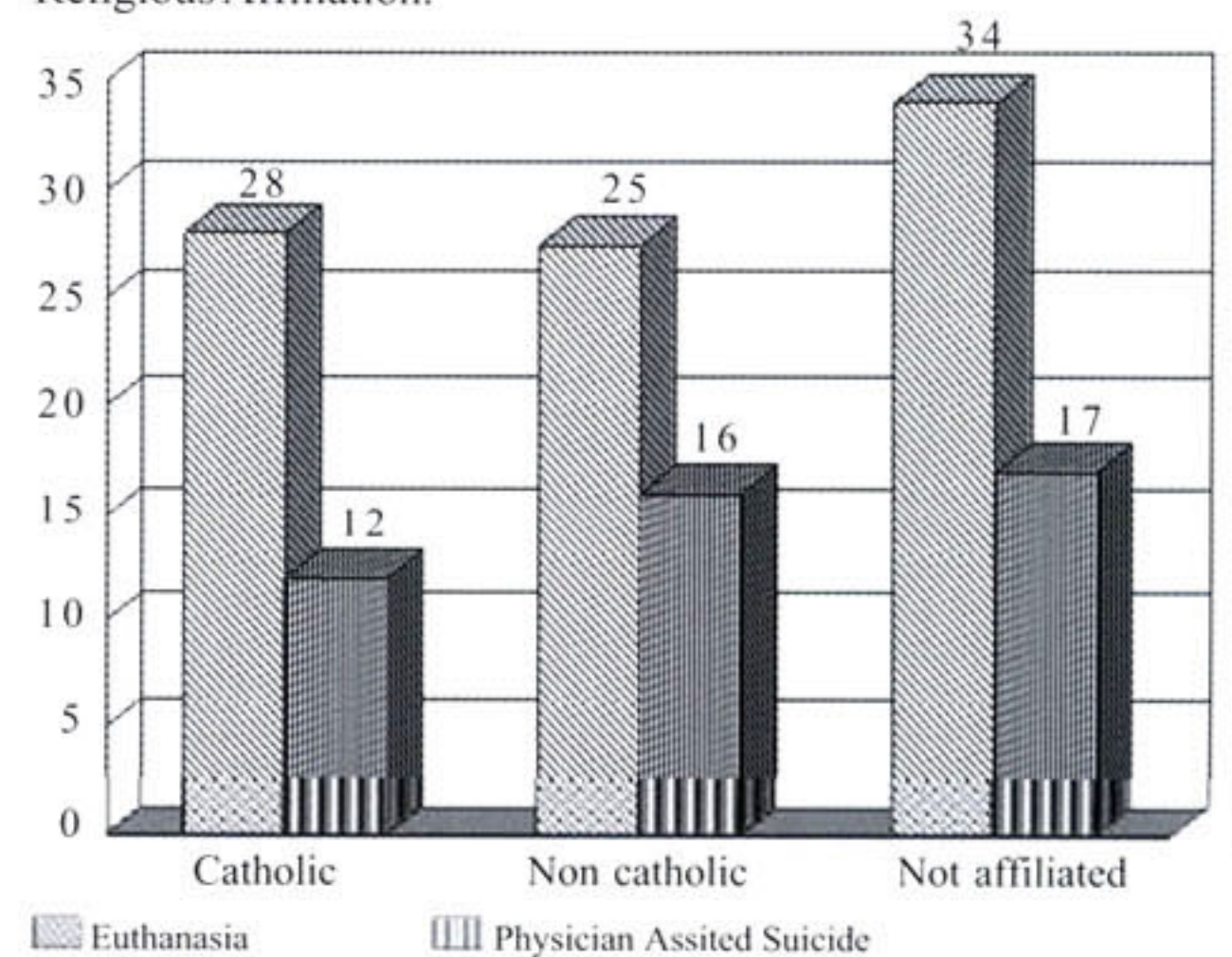
women (52 %) than men (45 %) would not oppose others practicing PAS.

Sixty seven percent of the sample claimed to be Catholics, 19 % Other Christian, 2 % Jews and 14 % claimed no religious affiliation. For purposes of analysis they were divided into three groups: Catholics, Non-Catholics and

Comment

Compared to a similar survey completed in 1996 in Puerto Rico, the proportion of medical students and residents that would acquiesce to a request for euthanasia has decreased from 40 % to 28% among students and 33% to 26% among residents. However, more members of the faculty would accept the request for euthanasia in 2004 (31%) than in 1996 (20%).

Figure 2. Support of Euthanasia and Willingness to Engage in Physician Assisted Suicide by Interviewees With or Without Religious Affiliation.



Perhaps influenced by the current practice in Oregon, the willingness to practice physician-assisted suicide has had a modest increase in the last 8 years among the three groups questioned: medical students from 10% to 13%, residents from 12% to 18% and the faculty from 6% to 11 %. The practicing faculty acquiescing to a request for euthanasia in PR (31%) remains much less than that reported among physicians in the state of Oregon (55%), (6). In a postal survey answered by 677 members of the

American College of Physicians in Connecticut, 38% believed that PAS was ethically appropriate in some circumstances and 78% believed that terminal sedation was appropriate for intractable pain (7). The Puerto Rican faculty is less willing than the Connecticut internists to practice PAS (11%), but the willingness of 66% to prescribe full doses of drugs to alleviate pain in dying patients suggests a similar attitude as the Connecticut internists about terminal sedation.

If legalized, the proportion that would not engage but would not oppose for others to participate in PAS remained similar in 1996 and 2004 for medical students (50% and 46% respectively), residents (43% and 40% respectively) and faculty (45% and 52% respectively). The proportion of medical students who would agree to limit certain resources for the terminally ill increased markedly between the 1996 survey and this survey (61 % and 80 % respectively). This may be a result of the increased emphasis in advanced directives and the importance of autonomy in end-of-life decisions presently given in our teaching hospitals.

Significant differences are noted between residents (the men in the trenches), who are less willing to limit certain resources from the terminally ill (66 %), than the medical students (80 %) and faculty (85 %). Surprisingly, in this anonymous and non-judgmental setting, there was no significant difference between those claiming a religious affiliation and those who did not in regard to their support or tolerance of E or PAS.

The marked difference between men and women in regard to their willingness to engage in the practice of E and PAS was a surprising finding and of importance in a medical community progressively more in the hands of women. A similar observation has been recently made in a teaching hospital in Nigeria (8). In a sample of 67 clinicians with 5 or more years of practice 1 of 11 females would support PAS while 8 of 56 males would. This outstanding gender difference in attitude merits further study.

The attitude of Puerto Rican medical students is much more conservative than that of Dutch medical students, as many as 80 % of them are in favor of PAS (9). Their attitude resembles that voiced by fifth and sixth year students from the Medical School of the University of Ferrara in Northeast Italy where 28.3 % of the students were somewhat in favor or strongly in favor of E or PAS (10). The opinion of our medical students is not too dissimilar to students with a Christian faith from the University of Oslo: For patients with terminal illness, 30 % supported E and 39 % PAS. Their opinion differed markedly from University of Oslo students with another faith or no definable faith: 57% of them favored E and 65 % would engage in PAS (11).

In the pursuit of the moving target of moral excellence in end-of-life management, the concern about hastening death while relieving pain in the dying patient remains an issue for 14% of the residents and 34% of the faculty. While the guidelines for the treatment of acute and cancer-related pain published in 1995 have dramatically improved pain assessment, they have had a limited effect in the outcome of pain management (12). Still, muscular injections of meperidine hydrochloride on an as needed basis remain a common practice. Practicing physicians need to integrate new knowledge and behavior into day-to-day pain management (13).

Resumen

Las actitudes con relación a los eventos al final de la vida están evolucionando en las culturas de Occidente. Tratamos de trazar esta evolución en la cultura relativamente homogénea de Puerto Rico a través de un cuestionario de 16 preguntas contestadas por 153 estudiantes de medicina 62 residentes de medicina y 84 miembros de las facultades de tres escuelas de medicina. Las 4 preguntas medulares fueron: 1) ¿Accedería usted a una solicitud de eutanasia (E)? 2) Si fuese legalizada, ¿participaría usted? se opondría a su práctica? ¿Se opondría o no se opondría a que otras practicaran el suicidio asistido (PAS)? 3) ¿Consideraría ético recetar las dosis de drogas necesarias para aliviar el dolor, aún sabiendo que esto acortaría la vida? 4) ¿Aceptaría limitar escasos recursos a personas ya en una etapa terminal? *Resultados* : Veintiocho por ciento de los estudiantes 26% de los residentes y 31% de la facultad accedería a una solicitud de E. Solo 13% de los estudiantes, 18% de los residentes y 11% de la facultad participarían en PAS. Más hombres que mujeres accederían a una solicitud de E o PAS. Una afiliación religiosa o la ausencia de ella no influyó la opinión con relación al apoyo o rechazo de E y PAS. Si acortara el proceso de morir, 86% de los residentes pero solo 65% de la facultad consideró ético recetar la dosis de drogas necesarias para aliviar el dolor.

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