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Euthanasia and Physician-Assisted Suicide in the United States at the Turn of the 21st Century

Abstract

For more than a decade, the ethics and legality of euthanasia and physician-assisted suicide have been actively debated in the United States. This debate has fairly clearly settled the legal questions and added significant empirical data to inform the debate. This chapter gives a review of both the legal decisions and legislative initiatives regarding euthanasia and physician-assisted suicide and the many empirical studies of the American public, physicians, and patients related to their attitudes and experiences regarding euthanasia and physician-assisted suicide.

In 1997, the United States Supreme Court definitively ruled 9-0 that there is no constitutional right to either euthanasia or physician-assisted suicide. But it also made clear that there is no constitutional barrier for states to legalize euthanasia or physician-assisted suicide. Only Oregon has legalized physician-assisted suicide; many other states have passed laws to ensure euthanasia and physician-assisted suicide are illegal. The most recent referendum, in 1998 in Michigan, voted overwhelmingly to oppose legalizing physician-assisted suicide. Data on the public's attitudes shows that support for euthanasia and/or physician-assisted suicide is variable with a majority supporting these interventions for patients in extreme pain but not for other reasons. The elderly, African-Americans, Catholics, and religious individuals are much more likely to oppose euthanasia and physician-assisted suicide. Most surveys of physicians show a majority oppose euthanasia or physician-assisted suicide, with considerable variation among specialties. Support for these interventions among physicians appears to have declined in recent years. About a quarter of physicians, and as many as half of oncologists, have received requests for euthanasia or physician-assisted suicide, but a small minority, less than 10% of all physicians and fewer than 20% of oncologists, have performed euthanasia or physician-assisted suicide. And the physicians who have performed these interventions do them very rarely: most only once in a career. Data from cancer, HIV/AIDS, amyotrophic lateral sclerosis (ALS), and terminally ill patients suggest that depression, hopelessness, and psychological distress are the primary factors associated with personal interest in euthanasia or physician-assisted suicide. Pain, which is the reason most Americans find euthanasia and physician-assisted suicide acceptable—does not appear to be a main motivating factor behind patients' personal desire for euthanasia or physician-assisted sui-

cide. It appears that considerably less than 1% of all Americans die from euthanasia or physician-assisted suicide.

Over the last decade the legality of euthanasia and physician-assisted suicide in the United States has been resolved. Empirical research has contributed significantly to our understanding of the attitudes and practices regarding euthanasia and physician-assisted suicide, especially the depth of public support, the factors associated with patient interest, and physician practices regarding euthanasia and physician-assisted suicide. However, several important questions remain unanswered.

Euthanasia and physician-assisted suicide burst onto the United States public arena in 1988 with publication of 'It's over, Debbie' in JAMA.[1] This article stirred a debate with many people criticizing the anonymous case.[2,3] The sentiment became more favorable toward euthanasia and physician-assisted suicide with publication of Timothy Quill's article on his patient Diane.[4] Since that time there have been numerous papers debating the ethics and legality of these interventions as well as empirical studies examining the practices.[5] In the past decade we have gained significant understanding about attitudes towards euthanasia and physician-assisted suicide in the United States as well as the practices themselves. This review of the current level of understanding about euthanasia and physician-assisted suicide in the United States will be divided into 5 parts: (1) review of the current legal circumstances; (2) review of the public's attitudes; (3) review of physicians' attitudes; (4) review of physicians' practices and experiences; and (5) review of patients' attitudes and experiences. It will conclude with a summary of the most important questions that need further empirical inquiry.

Legal status of euthanasia and physician-assisted suicide in the United States

On June 26, 1997, the United States Supreme Court definitively ruled, 9-0, that there is no constitutional right to euthanasia or physician-assisted suicide.[6,7] While the written opinions are diverse, and some even consider them bizarre, and while many have tried to discern possibilities for endorsement of a right to euthanasia or physician-assisted suicide, this ruling seems quite definitive.[8,9] There does not seem a basis on which five justices would endorse a constitutional right to euthanasia or physician-assisted suicide. But the Supreme Court did rule that there is no constitutional prohibition to legalizing these interventions, thereby permitting the states, like Oregon, to enact statutes legalizing them.

A few weeks after the United States Supreme Court ruling, the Supreme Court of Florida, a state with a strong constitutional guarantee of privacy, also ruled that there is no state constitutional right to physician-assisted suicide.[10] Indeed, the trend in state legislatures has decidedly been against legalizing euthanasia and physician-assisted suicide. Since the early 1990s, seven state legislatures have voted explicitly to prohibit euthanasia and physician-assisted suicide.[11] In only one state has a bill to legalize euthanasia and/or physician-assisted suicide even been considered by a full chamber of a state legislature and the legislature defeated that bill 99 to 42.[12] Further, only one committee of one state legislative body has ever voted to endorse legalizing

euthanasia and/or physician-assisted suicide. In the one state that put legalization of euthanasia or physician-assisted suicide before the voters in a referendum in the last three years, the proposal was resoundingly defeated. In November 1998, 70% of Michigan voters opposed legalizing physician-assisted suicide.[13]

Thus, Oregon remains the only jurisdiction in the world in which physician-assisted suicide or euthanasia is legal. For reasons, that may become clear when we consider public attitudes toward euthanasia or physician-assisted suicide, it seems unlikely that any state legislature will endorse legalization in the near future. Indeed, it appears that interest in legalization has gone through a cycle and is currently on the decline with more attention focused on improving end-of-life care and many people recognizing that euthanasia and physician-assisted suicide cannot achieve this end since they influence the dying process of only a handful of decedents.

Table 1. Framing effects: variations in the public's attitudes toward euthanasia and physician-assisted suicide depending upon the questions asked.

Survey question	Year	Proportion of public supporting euthanasia or physician-assisted suicide (%)
When a person has a disease that cannot be cured, do you think doctors should be allowed to end the patient's life if the patient and his or her family request it?*	1950	34
	1982	61
	1991	63
	1998	59
A patient develops metastatic cancer, which invades the bones and and causes excruciating pain. Current levels of morphine, nerve blocks, and other treatments are failing to control the pain completely. In this case would it be alright, upon request from the patient, for the doctor to administer intravenous drugs, such as potassium, to intentionally end the patient's life?#	1993	65.6
As you may know, physician-assisted suicide involves a doctor giving a terminally ill patient the means to end his or her life. Do you think it should be legal for a doctor to help a terminally ill patient commit suicide?†	1997	45
If a person has a disease that will ultimately destroy their mind or body and they want to take their own life but cannot do it by themselves, should a doctor be allowed to administer lethal drugs to end the person's life?‡	1998	47
Sometimes, terminally ill patients want to die and ask a doctor to help them commit suicide. Should it be legal for doctors to give a lethal dose of drugs to terminally ill patients who ask for it?§	1999	54

* Reference 15 and Gallup Poll June 1998.
\# Reference 16.
† Princeton Survey Research Associated for Kaiser Family Foundation and Harvard University, November 5, 1997.
‡ CBS News Poll, November 23-24, 1998.
§ Rasmussen Research, March 30, 1999.

Attitudes of the American public towards euthanasia and physician-assisted suicide

There have been innumerable surveys of the American public on euthanasia and physician-assisted suicide.[14,15,16] Most surveys are a few questions added to other general surveys and do not probe very deeply; only a few have been in depth analyses. In general, three conclusions can be drawn from these data that both opponents and proponents of euthanasia or physician-assisted suicide endorse.

First, there are significant framing effects in the public's response to questions. Depending on how questions are worded and the types of choices offered, public support for euthanasia or physician-assisted suicide can vary quite widely from under 50% to nearly 70% (Table 1). However, very few surveys find public support in excess of 70% no matter how the questions are crafted. This leads to what might be called the 'Rule of Thirds.' Roughly, one third of Americans support euthanasia or physician-assisted suicide no matter what the circumstances. For instance, 29.3% of Americans support euthanasia or physician-assisted suicide for terminally ill patients who are not in pain but desire these interventions because they view life as meaningless. Similarly, 36.2% support euthanasia or physician-assisted suicide for terminally ill patients who give as their reason not wanting to be a burden on their family.[17] These are the roughly one third who support euthanasia or physician-assisted suicide almost no matter the reasons; their attitudes are not affected by the interventions or the circumstances.

Conversely, approximately one third of Americans oppose euthanasia or physician-assisted suicide no matter what the circumstances, even for terminally ill competent patients with unremitting pain. Almost all the surveys that report the highest levels of support for euthanasia or physician-assisted suicide utilize questions probing the use of such interventions for patients with extreme pain. For instance, 65.6% of the public supports euthanasia or physician-assisted suicide for patients who request these interventions because of extreme pain (Tables 1 and 2).[16] Similarly, among caregivers of terminally ill patients, 58.7% support euthanasia for a terminally ill cancer patient with unremitting pain.[17] These data mean that roughly one-third of Americans—the difference between 100% of the public and the 65% who support euthanasia for patients in pain—oppose euthanasia or physician-assisted suicide even for terminally ill patients who are experiencing unremitting pain despite optimal management.

The remaining one-third of Americans constitutes the volatile public. They support euthanasia or physician-assisted suicide in some circumstances, usually involving extreme pain, but oppose it in other circumstances, such as for reasons of indignity, or meaninglessness, or because the patient feels he is a burden (Table 2).

The framing effects and this 'Rule of Thirds' means that support for euthanasia or physician-assisted suicide is not as extensive as the reports that two-thirds of Americans support these interventions make it appear. Furthermore, for very few of these people, members of the Hemlock society and a few others, is legalizing euthanasia or physician-assisted suicide a leading issue, the primary issue that will determine their vote. In this sense, euthanasia and physician-assisted suicide are not

Table 2. Variations in the public's support for euthanasia and physician-assisted suicide by scenario and intervention.*

Scenario Terminally ill patient with:	Support for euthanasia (%) (%)	Support for physician-assisted suicide (%)
Unremitting pain despite narcotics, nerve blocks and other pain treatments.	65.6	66.5
Functional debility—no pain but cannot get out of bed or provide self-care.	49.2	48.1
Burden on family—has no pain but concerned about the burden that deterioration might place on the family.	36.2	36.2
View life as meaningless—has no pain but finds waiting for death meaningless and purposeless	29.3	32.8

* From reference 16.

like abortion is for the Christian right, the environment for environmentalists, or lower capital gains taxes for the rich: the issue that determines their vote. In other words, support for euthanasia and physician-assisted suicide is not a litmus test issue; it is not an issue many people will vote on alone. Politicians know that support for euthanasia or physician-assisted suicide is neither firm nor deep and hence are unwilling and unlikely to take chances in voting to legalize them. This is one reason state legislation legalizing euthanasia or physician-assisted suicide is unlikely.

Second, the American public does not distinguish between euthanasia and physician-assisted suicide. While medical ethicists, philosophers, lawyers, and others have spent much time debating whether euthanasia is fundamentally different from physician-assisted suicide and elucidating potential distinctions, the American public does not seem to make much of the distinction. Polls show that Americans support euthanasia at the same rate that they support physician-assisted suicide (Table 2). For instance, 65.6% of the public supports euthanasia for a terminally ill patient with unremitting pain while 66.5% support physician-assisted suicide in the same scenario; 29.3% support euthanasia because a terminally ill patient feels life is meaningless while 32.8% support physician-assisted suicide in the same circumstances.[16]

Third, there are certain socio-demographic characteristics associated with support and opposition to euthanasia or physician-assisted suicide. Consistently, people who are Catholics and those who report themselves to be more religious are significantly more opposed to euthanasia or physician-assisted suicide. Similarly, African-Americans

Table 3. Comparing attitudes of the american public and patients on euthanasia and physician-assisted suicide.*

Scenario	Public (%)	Terminally ill patients (%)	Caregivers of terminally ill patients (%)
When a person has a disease that cannot be cured, do you think doctors should be allowed to end the patient's life if the patient and his or her family request it?	63	60.2	NA
Unremitting pain despite narcotics, nerve blocks and other pain treatments.	65.6	54.8	58.7
Burden on family—has no pain but concerned about the burden that deterioration might place on the family.	36.2	32.7	29.1

* From references 16 and 17.

and older individuals are significantly more opposed to euthanasia or physician-assisted suicide (Figure 1). Finally, some, but not all, surveys suggest that women are significantly more opposed to euthanasia or physician-assisted suicide. Interestingly, patients with physician determined terminal illnesses, such as cancer and COPD, have attitudes that are almost identical with the public's (Table 3). In other words, having a serious, even life-threatening illness itself does not seem to affect attitudes toward the permissibility or opposition to euthanasia or physician-assisted suicide. Similarly, being a caregiver for a terminally ill patient or a recently bereaved caregiver does not seem to affect attitudes toward euthanasia or physician-assisted suicide (Table 3).

Attitudes of American physicians regarding euthanasia and physician-assisted suicide

Over the last decade, American physicians have been extensively surveyed about euthanasia and physician-assisted suicide.[18-37] Many of the surveys, especially the early ones, are methodologically problematic.[5] The surveyed cohorts are narrow or biased, the response rates are low, the questions are either poorly worded, conflating terminating medical treatments with euthanasia, emotionally laden, or biased, or the questions do not probe very deeply. In recent years, the surveys have solved most if not all of these problems and the data are more reliable. By critically examining the overall data, certain conclusions can be drawn about physicians' attitudes regarding euthanasia or physician-assisted suicide.

In all but a few of the surveys, only a minority of American physicians supports euthanasia or physician-assisted suicide.[18-37] In other words, most surveys find that the majority of American physicians oppose euthanasia or physician-assisted suicide. For instance, in a survey of Michigan physicians, Bachman and colleagues could

demonstrate a majority of physicians (56.6%) supporting physician-assisted suicide only when they were forced to choose either legalization or an explicit ban; without being forced into this choice only 38.9% supported permitting physician-assisted suicide.[29] In a survey of Oregon physicians, Lee and colleagues reported that 66% said that physician-assisted suicide would be ethical in some cases.[30] More typical are surveys that report a small proportion of physicians who support euthanasia or physician-assisted suicide.[20,27,34,36,37] For instance, among oncologists 45.5% supported physician-assisted suicide for a terminally ill cancer patient with unremitting pain while 22.7% supported euthanasia in the same situation.[16]

These data demonstrate another important factor: unlike the American public, American physicians do distinguish between euthanasia and physician-assisted suicide. They are much more likely to support providing physician-assisted suicide than providing euthanasia (Figure 2).[16,24,29,36,37] No study has found a majority of physicians supporting euthanasia. The only surveys getting close to support by a majority of American physicians ask about physician-assisted suicide. Thus, unlike the American public, support for euthanasia or physician-assisted suicide among American physicians crucially depends upon the intervention being asked about.[16]

There are important predictors of support for euthanasia or physician-assisted suicide. As with the American public, American physicians who are Catholic and religious are significantly less likely to support euthanasia or physician-assisted suicide.[16,24,27,29,34,37] Similarly, surveys have reported certain specialties as more supportive of euthanasia or physician-assisted suicide than others. Surgical oncologists support euthanasia or physician-assisted suicide more than medical oncologists.[37] Others have reported psychiatrists and obstetricians and gynecologists as more supportive of euthanasia or physician-assisted suicide with internists, especially oncologists, less supportive.[27,29,30,34] Still others have found family or general practitioners as more supportive than internists.

Finally, at least among American oncologists, there appears to be a significant decline in support for euthanasia or physician-assisted suicide between the early and late 1990s.[16,37] Between 1994 and 1998, support for both euthanasia and physician-assisted suicide in the scenario of a terminally ill cancer patient who had unremitting pain significantly declined among oncologists. Support declined by 50% for physician-assisted suicide and by 75% for euthanasia (Figure 1).[16,37]

Practices of American physicians regarding euthanasia and physician-assisted suicide

Many American physicians have reported receiving requests for euthanasia or physician-assisted suicide. The precise proportion of physicians who have received such requests is unclear, as there is significant variation in the reported frequencies (Table 4). For instance, Fried and colleagues (1993) reported that 18.9% of Rhode Island physicians received requests for physician-assisted suicide while 13.2% received requests for euthanasia.[24] Among Michigan oncologists, Doukas and colleagues (1995) reported that 38% received requests for physician-assisted suicide while 43%

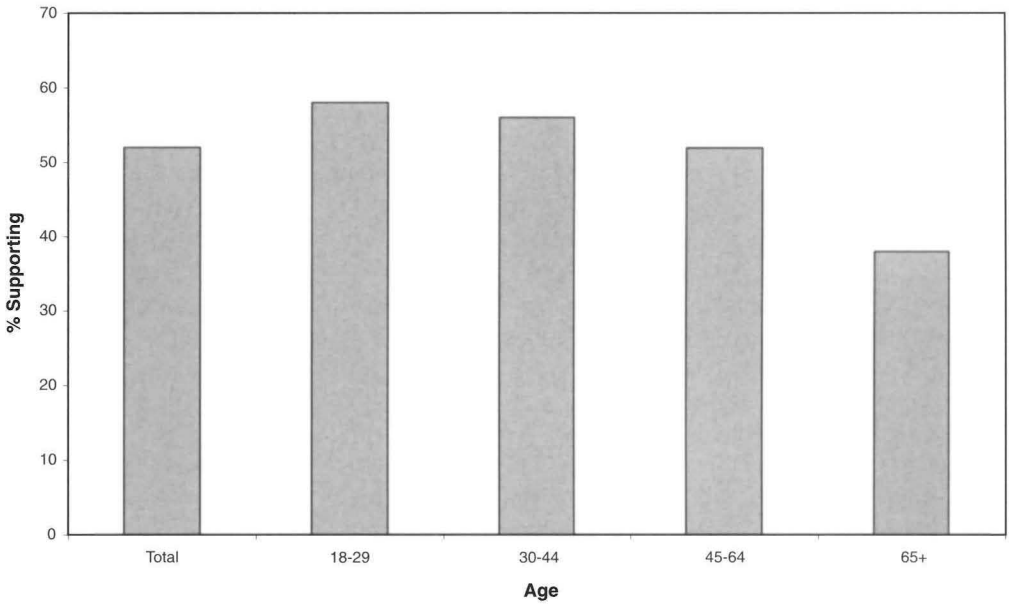

Figure 1. Support for euthanasia by Americans.

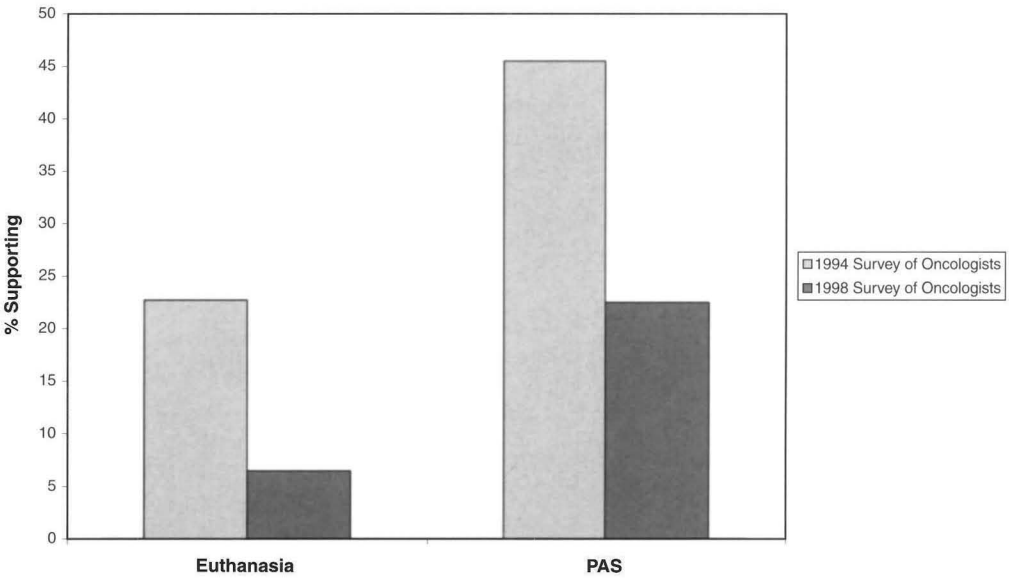

Figure 2. Decline in support for euthanasia and physician-assisted suicide among American physicians.

received requests for euthanasia.[28] Lee and colleagues (1996) reported that among Oregon physicians 21% have received requests for physician-assisted suicide.[30] Back and colleagues (1996) reported that 26% of Washington state physicians had been asked to hasten death, with 18% of oncologists having received requests for physician-assisted suicide and 9% having been asked for euthanasia within the previous year.[31] Emanuel and colleagues (1996) reported that among American oncologists 50.6% had received requests for physician-assisted suicide and 37.6% had received requests for euthanasia.[16] Meier and colleagues (1998) reported that 18.3% had reported receiving requests for physician-assisted suicide while 11.1% had received requests for euthanasia; in this survey 25% of oncologists received physician-assisted suicide requests with 13% receiving a request for euthanasia.[34] A survey of 3299 American oncologists by the American Society of Clinical Oncologists (ASCO) revealed that 38.2% had received requests for euthanasia and 56.2% had received requests for physician-assisted suicide.[37]

Table 4. Requests for euthanasia and physician-assisted suicide among American physicians.

Study	Publication date	Type of survey	Response rate (%)	Types of physicians surveyed (n)	Euthanasia (%)	Physician-assisted suicide (%)
Fried et al.[24]	1993	Mail	65	265 Rhode Island physicians	13.2	18.9
Doukas et al.[28]	1995	Mail	61.6	154 Michigan oncologists	43	38
Lee et al.[30]	1996	Mail	70	2761 Oregon physicians	NA	21
Back et al.[31]	1996	Mail	57	828 Washington state physicians	26*	
			56	107 Washington state oncologists	9#	18#
Emanuel et al.[16]	1996	Telephone	73	355 United States oncologists	37.6	50.6
Meier et al.[34]	1998	Mail	61	1902 United States physicians	11.1	18.3
			71	275 United States oncologists	13	25
Willems et al.[36]	2000	Telephone	80	152 Oregon oncologists, internists, and family practitioners	48†	
ASCO[37]	2000	Mail	41.7‡	3299 United States oncologists	56.2	38.2

* The question did not distinguish euthanasia from physician-assisted suicide; it asked 'Has a patient ever requested help to hasten death?'

\# These are data on requests in the last year.

† This represents the pooled responses to requests for euthanasia and physician-assisted suicide.

‡ There were two cohorts of oncologists with 39.8% response rate and 51.5% response rate. The answers to these questions did not differ and their results were pooled for reporting. This response rate is the average of the two cohorts.

NA, not availabe

These different reported rates of requests for euthanasia and physician-assisted suicide may reflect methodological issues, such as: (1) the differences between mailed and telephone surveys; (2) the different dates, with physicians being more willing to acknowledge performing these interventions in later years, as the debate becomes more public and accepted; (3) the different regions of the country with those in the West performing these interventions more frequently than the New England or North Central region[34]; and (4) the different investigators, with physicians more willing to acknowledge performing these interventions when the survey comes from investigators from the same state or a colleague in the same specialty.[16,28-31,37] However, differences in specialty may play the most important role. Oncologists are more likely to care for dying patients than internists, surgeons or any general list of physicians. Consequently, surveys of oncologists are more likely to report higher proportions of requests. Nevertheless, even among oncologists, the survey results vary considerably suggesting residual methodological issues.

In general, physicians who have received requests have received few requests.[31,32,37] For instance, Meier and colleagues report that overall physicians who received requests for physician-assisted suicide received a median of three requests in their careers (range 1-100) and a median of four requests for euthanasia (range 1-50).[34] Surveys have not thoroughly illuminated physicians' responses to requests for euthanasia or physician-assisted suicide. Back and colleagues reported that initially 76% of physicians increased treatment of physical symptoms, 65% treated depression and anxiety, and 24% referred the patient for a psychiatric evaluation.[31] Similarly, Meier and colleagues reported that 71% of physicians responded to requests for euthanasia or physician-assisted suicide by increasing analgesic treatment, while 30% used fewer life-prolonging therapies, and 25% prescribed anti-depressants.[34]

Despite being illegal, many studies indicate that a small but definite proportion of American physicians has performed euthanasia and/or physician-assisted suicide.[32,36] However, the data provide conflicting evidence on the precise frequency of such interventions. Reported frequencies of performing euthanasia and physician-assisted suicide vary more than 6-fold among even the best of studies (Table 5). For instance, Fried and colleagues (1993) reported that 2.5% of Rhode Island physicians performed physician-assisted suicide while 1.3% reported performing euthanasia.[24] Among Michigan oncologists, Doukas and colleagues (1995) reported that 18% participated in physician-assisted suicide while 4% received requests for euthanasia.[28] Lee and colleagues (1996) reported that 7% of Oregon physicians had performed physician-assisted suicide.[30] Back and colleagues (1996) reported that 4.6% of Washington state physicians performed physician-assisted suicide while 1.7% had performed euthanasia.[31] Emanuel and colleagues (1996) reported that among American oncologists 13.5% had participated in physician-assisted suicide and 1.8% had performed euthanasia.[16] Meier and colleagues (1998) reported that 3.3% had reported performing physician-assisted suicide while 4.7% had committed euthanasia; in this survey 3% of oncologists participated in physician-assisted suicide and 2% committed euthanasia.[34] The ASCO survey of American oncologists revealed that 10.8% had performed physician-assisted suicide while 3.7% had performed euthanasia.[37]

Table 5. Performance of euthanasia and physician-assisted suicide among American physicians

Study	Publication date	Type of survey	Response rate (%)	Types of physicians surveyed (n)	Euthanasia (%)	Physician-assisted suicide (%)
Fried et al.[24]	1993	Mail	65	265 Rhode Island physicians	1.3	2.5
Doukas et al.[28]	1995	Mail	61.6	154 Michigan oncologists	4	18
Lee et al.[30]	1996	Mail	70	2761 Oregon physicians	NA	7
Back et al.[31]	1996	Mail	57	828 Washington state physicians	1.7	4.6
Emanuel et al.[16]	1996	Telephone	73	355 U.S. oncologists	1.8	13.5
Slome et al.[32]	1997	Mail	60	137 San Francisco AIDS physicians	NA	53
Meier et al.[34]	1998	Mail	61	1902 U.S. physicians	4.7	3.3
			71	275 U.S. oncologists	2	3
Willems et al.[36]	2000	Telephone	80	152 Oregon oncologists, internists, and family practitioners	0	7
ASCO[37]	2000	Mail	41.7*	3299 U.S. oncologists	3.7	10.8

* There were two cohorts of oncologists with 39.8% response rate and 51.5% response rate. The answers to these questions did not differ and their results were pooled for reporting. This response rate is the average of the two cohorts.

NA, not availabe

Much of this variation may be attributable to the reasons cited above, especially the differences in specialties. However, there is another methodological concern. The study by Meier and colleagues is the only study to have ever reported that more American physicians perform euthanasia than physician-assisted suicide.[34] This finding contrasts with the extant data on American physicians' attitudes and practices regarding euthanasia and physician-assisted suicide. The data on physicians' attitudes demonstrates that physicians are significantly more willing to perform physician-assisted suicide than euthanasia.[24,26,28,37] Further the other studies of performing euthanasia and physician-assisted suicide demonstrate physicians performing physician-assisted suicide more frequently than euthanasia (Table 5). Thus in the study by Meier and colleagues it appears that physicians were not all reporting cases of euthanasia. As reported by Emanuel and colleagues[38], despite careful wording physician frequently confound euthanasia and terminating life-sustaining treatments, and this may be more common and harder to control for in mailed rather than telephone surveys because there is no opportunity to clarify responses. Thus, the study by Meier and colleagues may classify many cases as euthanasia that are in fact not euthanasia.

When American physicians have performed euthanasia or physician-assisted suicide they have done so very rarely. Meier and colleagues reported that the median number of physician-assisted suicide cases was two (range 1-25) while the median

number of euthanasia cases was two (range 1-150).[34] A recent survey by ASCO of oncologists reported that of those who had performed physician-assisted suicide, 37% had done so only once in their careers while 18% had done so five or more times.[37] Similarly, among the American oncologists who had performed euthanasia, over half had done so only once and just 12% had done so five or more times.[37]

Two studies have examined the impact of performing euthanasia or physician-assisted suicide on physicians. Meier and colleagues and Emanuel and colleagues reported that the majority of physicians were comfortable having performed euthanasia or physician-assisted suicide.[34,38] However, according to Meier and colleagues, 19% of physicians were uncomfortable after performing physician-assisted suicide and 12% were uncomfortable after performing euthanasia. (This lower proportion of feeling uncomfortable after performing euthanasia may reflect that many of these so-called 'euthanasia' cases were actually cases of terminating life-sustaining treatments.) They also found that in similar circumstances only 1% would not comply with physician-assisted suicide and 7% would not comply with euthanasia. Emanuel and colleagues reported that 25% regretted performing euthanasia or physician-assisted suicide and that 15% had adverse emotional reactions to performing euthanasia or physician-assisted suicide. At least in the cases reported by Emanuel and colleagues, these reactions did not seem related to fear of prosecution.

Finally, there is some disagreement about failed physician-assisted suicide attempts. Emanuel and colleagues reported that in 15% of cases, physician-assisted suicide failed; that is, patients were given a prescription, attempted suicide but did not die.[38] Ganzini and colleagues recently reported that there were no failed attempts in Oregon.[39] And the reports from the first two year's experience by the Oregon Health Division report no 'failed' physician-assisted suicide attempts.[40] As Nuland points out, the lack of problems with physician-assisted suicide in these reports from Oregon contrasts with the recently reported Dutch experience.[41] In the Netherlands, 7% of physician-assisted suicide cases had complications and in 16% it was taking 'longer than expected.' Ultimately, in 18.4% of physician-assisted suicide cases, Dutch physicians intervened to administer lethal medications, converting physician-assisted suicide cases into euthanasia.[42] The importance of this for the United States relates to the possibility of legalizing physician-assisted suicide without legalizing euthanasia, and what is to be done in the cases of 'failed' physician-assisted suicide. As the data demonstrate, in the Netherlands the accepted norm is to administer lethal medications, that is, perform euthanasia, in cases of failed physician-assisted suicide. This would not be permitted in the United States if euthanasia remains illegal. If the data from Emanuel and colleagues and the Dutch investigators is correct, there may be serious dilemmas for physicians if physician-assisted suicide is permitted but euthanasia is not.

Attitudes and practices of American patients regarding euthanasia and physician-assisted suicide

A few studies have examined the attitudes and experiences of American patients regarding euthanasia and physician-assisted suicide (Table 6).[43,44,45] Breitbart and

Table 6. Patients attitudes toward and experiences with euthanasia and physician-assisted suicide.

Study	Publication date	Type of survey	Response rate (%)	Types of physicians surveyed (n)	Personally considered euthanasia or physician-assisted suicide (%)	Factors associated with considering euthanasia or physician-assisted suicide	Factors NOT associated with considering euthanasia or physician-assisted suicide
Emanuel et al.[16]	1996	Telephone	61	155 New England cancer patients	27.3*	Depressive symptoms Poor physical functioning Less religious Higher incomes	Pain
Breitbart et al.[43]	1996	Mail	NA	378 New York City HIV patients	55#	Depression Hopelessness Fewer social supports	Pain Pain intensity Pain related functional impairment
Ganzini et al.[44]	1998	In-person	71	140 Oregon ALS patients	56†	Male More education Hopelessness Less religious	Depression Pain Perceived effect on family Use of hospice
Emanuel et al.[17]	Submitted	In-person	87.4	988 U.S. terminally ill patients	10.5‡	Lack of appreciation Depressive symptoms Care needs	Pain

* Considering euthanasia or physician-assisted suicide pooled patients who had positive responses to questions about considering euthanasia or physician-assisted suicide for themselves, hoarding drugs for the purposed of suicide, and reading the Hemlock Society's book, *Final Exit*.

\# The question stated: 'Would you consider physician-assisted suicide if it were legal?'

† Question phrasing: 'Under some circumstances I would consider taking a prescription for a medicine whose sole purpose was to end my life.'

‡ Question phrasing: 'Have you seriously thought about taking you life or asking your doctor to end your life?'

colleagues examined HIV/AIDS patients in New York City[43]; Ganzini and colleagues interviewed ALS patients in Oregon[44]; and Emanuel and colleagues surveyed oncology patients in Massachusetts.[16] In addition, there are data reporting on the first two years of experience of legalized physician-assisted suicide in Oregon encompassing some 43 cases.[40,45] There are additional data on the practices of euthanasia and physician-assisted suicide among patients in six different United States cities determined to be terminally ill by their physicians.[17] At least four major conclusions can be drawn from these data.

First, mainly oncology patients utilize euthanasia and physician-assisted suicide. Among the first 43 cases of physician-assisted suicide in Oregon 72% of the patients had cancer.[40] Meier and colleagues report that among patients receiving physician-assisted suicide 70% had cancer while among those receiving euthanasia only 23% had cancer.[34] (This is another indication that the euthanasia data reported by Meier and colleagues are not really euthanasia cases but include many cases of terminating life-sustaining treatments.) These data are comparable to the data from the Netherlands where 80% of euthanasia and 78% of physician-assisted suicide cases involved patients with cancer[46] and from the Northern Territory, Australia where all seven patients who received euthanasia had cancer.[47]

Second, it appears that pain is not a major determinant of interest in or use of euthanasia or physician-assisted suicide (Table 6). Almost all of these studies as well as the interviews with physicians who have administered euthanasia and physician-assisted suicide[31,34,38,46,47] have shown that pain is not a predictor of patients' interest in euthanasia or physician-assisted suicide. For instance, among the patients receiving physician-assisted suicide in Oregon only one of fifteen had uncontrolled pain.[45] Breitbart and colleagues reported that pain, pain intensity and pain related functional impairment were not associated with interest in physician-assisted suicide among HIV/AIDS patients.[43] Emanuel and colleagues reported that for oncology patients pain was not associated with personal interest in euthanasia or physician-assisted suicide. [16] However, they did find that for terminally ill patients pain was among the factors associated with personally considering euthanasia or physician-assisted suicide.[17]

Third, depression, hopelessness, and general psychological distress are consistently associated with interest in physician-assisted suicide and euthanasia (Table 6). Breitbart and colleagues reported that depression and hopelessness were strongly related to interest in physician-assisted suicide for HIV/AIDS patients.[43] Emanuel and colleagues reported that both for oncology patients and terminally ill patients more generally depressive symptoms were associated with personal interest in euthanasia or physician-assisted suicide such as discussing these interventions and hoarding drugs for the purpose of physician-assisted suicide.[16] Ganzini and colleagues reported that hopelessness, but not depression, was associated with 'considering taking a prescription for a medicine whose sole purpose was to end my life.'[44]

Fourth, Emanuel and colleagues reported that among terminally ill patients the extent of caregiving needs was associated with interest in euthanasia or physician-assisted suicide.[17] Ganzini and colleagues, however, reported that there was not an association between the burden of caring for the patients and whether caregiver's supported or opposed a patient's request for physician-assisted suicide.[44]

What is not known for sure is the frequency of use of physician-assisted suicide and euthanasia in the United States. In the Netherlands, 3.4% of all deaths are by euthanasia or physician-assisted suicide including involuntary euthanasia.[46] In Oregon, the proportion of all deaths by physician-assisted suicide reported to the Oregon Health Division is 0.09%.[40] Such a low rate raises skepticism that not all cases of physician-assisted death are reported.[40] Emanuel and colleagues have found a rate of 0.4% among competent terminally ill patients.[17]

Future empirical research regarding euthanasia and physician-assisted suicide

There are six major areas in need of additional research in the United States. First, there are little data on the relationship between euthanasia and physician-assisted suicide and the provision of optimal end-of-life care. Are euthanasia and physician-assisted suicide used as truly 'last ditch' interventions for patients refractory to appropriate end-of-life interventions? Or are they used as substitutes for optimal end-of-life care? The ASCO survey suggested that there was a relationship between not being able to get dying patients all the care they needed and utilization of euthanasia and physician-assisted suicide. This result needs confirmation. Further we need to understand what are the predictors of physicians who come to use euthanasia and physician-assisted suicide only after trying optimal care versus those who use these interventions as a substitute. Is this the result of structural and financial barriers to optimal end-of-life care or is it the result of problems, such as lack of training in end-of-life care, on the part of physicians?

Second, there are widely divergent data on how frequently physician-assisted suicide fails and no data on what is done when it does fail. If in the United States only physician-assisted suicide will be permitted, what do physicians do when it fails?

Third, there is no information on the short and long-term impact of euthanasia and physician-assisted suicide on the surviving family members of the patients. Immediately after the interventions, families may have the psychological need to be supportive of the decision and believe that the right thing was done. However, with the passage of time, they may have different views. We have no data on the long-term impact of euthanasia and physician-assisted suicide on surviving family members.

Fourth, there are conflicting data on the actual frequency of euthanasia and physician-assisted suicide. These interventions occur, but how frequently? It may be that conducting a death certificate follow-back study modeled on the Dutch study[46] will be the best way to obtain accurate data on the frequency of these interventions as well as the reasons for the interventions, the palliative measures taken, and the effects on the family.

Fifth, there are no data on the frequency of non-voluntary euthanasia in the United States. In the Netherlands, non-voluntary euthanasia occurs in 0.7% of deaths. The rate may be higher in the United States given the expense and financial problems associated with end-of-life care.[48,49] Issues of coercion and of performing euthanasia on patients who are not competent are serious and there are inadequate data on these events in the United States.

Finally, we also have no data on euthanasia and physician-assisted suicide among children. While death is rare among children, there are several thousand deaths among children with cancer and HIV/AIDS. These deaths tend to occur after significant and prolonged illnesses and symptom management is less than optimal.[50] There may be cases of pediatric euthanasia or physician-assisted suicide. Why these occur and how they are handled is also important.

Unfortunately each of these issues is very difficult to study because euthanasia and physician-assisted suicide are relatively rare events requiring screening by many physicians to identify just a few cases. Thus, such studies will be very large and very expensive.

Conclusion

Over the last decade there has been a substantial amount of empirical research conducted on euthanasia and physician-assisted suicide in the United States. This empirical research has revealed many unexpected findings that have significantly influenced the public debate. Such findings include:

1. Public support for euthanasia and physician-assisted suicide is closely linked with the reasons patients want these interventions; the public supports the interventions only for patients in excruciating pain.
2. Yet, pain does not appear to be the primary factor motivating patients to request euthanasia and physician-assisted suicide; depressive symptoms, hopelessness, and other psychological factors appear to motivate patient requests for euthanasia and physician-assisted suicide.
3. Euthanasia and physician-assisted suicide occur, albeit at a very low rate. Indeed, over 99% of all dying Americans do not have these interventions and even in the Netherlands more than 96% of all decedents do not have these interventions. This last factor has emphasized that euthanasia and physician-assisted suicide are not the way to improve end-of-life care for the vast majority of decedents.

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