Determinants of the Willingness to Endorse Assisted Suicide

A Survey of Physicians, Nurses, and Social Workers

RUSSELL K. PORTENOY, M.D., NESSA COYLE, R.N.
KATHRYN M. KASH, PH.D., FRANK BRESCIA, M.D.
COLLEEN SCANLON, R.N., J.D., DANIEL O'HARE, PH.D.
ROBERT I. MISBIN, M.D., JIMMIE HOLLAND, M.D.
KATHLEEN M. FOLEY, M.D.

The authors surveyed 1,137 physicians, nurses, and social workers (overall response = 48%) to characterize the willingness to endorse assisted suicide. Willingness to endorse varied among disciplines and was negatively correlated with level of religious belief ($r = -0.35$, $P < 0.0001$), *knowledge of symptom management* ($r = -0.21$, $P < 0.0001$), *and time managing symptoms* ($r = -0.21$, $P < 0.0001$). *On multivariate analysis, the significant predictors were lesser religious belief* ($P < 0.0001$), *greater concern about analgesic toxicity* ($P = 0.001$), *diminished empathy* ($P = 0.03$), *lesser knowledge of symptom management* ($P < 0.04$), *and the interaction between religious belief and knowledge of symptom management* ($P = 0.04$). *Professionals' attitudes toward assisted suicide are influenced by diverse personal attributes, among which may be competence in symptom management and burnout.* (Psychosomatics 1997; 38:277–287)

The controversy surrounding physician-assisted death reflects the difficulties experienced by both professionals and the lay public in accommodating the universal desire to maintain autonomy and minimize suffering during progressive diseases such as cancer.[1–11] The professional and lay communities in many countries, including the United States, are actively debating the complex legal, medical, and ethical concerns that underlie this issue. One country, the Netherlands, has responded by allowing euthanasia.[12–15] In the United States, laws that prohibit euthanasia continue in all states, and most have specific statutes that prohibit physician-assisted suicide.

Polls indicate that a majority of the U.S. public supports legalization of assisted suicide.[6,7,16] Recently, a referendum in favor of legalization succeeded in Oregon, and similar referenda narrowly failed in Washington and California. Although there is no clear consensus, there is sufficient support to spur advocates

Received November 7, 1995; revised January 18, 1996; accepted March 14, 1996. From the Pain Service and Psychiatry Service, Department of Neurology, Memorial Sloan-Kettering Cancer Center, New York; the Calvary Hospital, Bronx, NY; and the University of Florida, Gainesville. Address reprint requests to Dr. Portenoy, Department of Neurology, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021.

in their efforts to seek legal protection for physicians who would assist patients in dying.

The medical literature has generally examined physician-assisted death in terms of perceived patient need or related ethical or medical considerations. Proponents portray assisted suicide or voluntary euthanasia as humane interventions that support the autonomy of selected patients who knowingly choose to die rather than suffer the effects of an incurable medical condition.[8,9] Those who reject the legitimacy of these actions do not dispute the beneficent impulses of proponents, but offer countervailing arguments that address larger concerns. The latter arguments typically focus on potential abuses, the concern that killing of any type violates the ethical foundations of medicine, the inadequate availability of comprehensive palliative care, and the practical problems that would accompany legalization.[1,2,4,17–21]

The attitudes of practicing physicians are clearly relevant to this debate.[22] Various surveys have elicited support for assisted suicide or voluntary euthanasia from 5% to 70% of physicians,[16,23–27] a range that reflects the sample and response biases that characterize this research. The most credible surveys suggest a near even split among both physicians[16,23,24] and oncology nurses.[28]

The determinants of these divergent professional attitudes warrant additional evaluation. A better understanding of the factors that influence attitudes could clarify opposing viewpoints and suggest the type of variation in clinical practice that might occur if physicians are ever granted legal protection. For example, past studies indicate that attitudes toward assisted suicide or euthanasia vary by both medical discipline and specialty.[15,23,24,28] This observation suggests that the exposure to patients with life-threatening diseases or suicidal ideation may influence professional attitudes or practice.[24–30] Other surveys demonstrate that personal attributes, such as religious affiliation, also influence views about assisted suicide or euthanasia.[15,16,24,28]

Our study objective was to explore the influence of these personal and professional attributes on the willingness to endorse assisted suicide. Among the factors evaluated were several that have been identified in prior studies, such as religious affiliation and professional discipline, and others that have not been evaluated before, including level of religious belief, self-assessed skills in the management of symptoms, and professional "burnout." We hypothesized that the willingness to endorse assisted suicide would be relatively lower among those with a higher level of religious belief, more clinical experience in caring for the dying, better knowledge of the means to provide comfort at the end of life, and lower levels of burnout. To facilitate the detection of differences in the degree to which these factors influenced attitudes, we surveyed a very heterogeneous professional sample, which included physicians, nurses, and social workers from different types of hospitals. We conducted this study in 1994–1995.

MATERIALS AND METHODS

The survey was part of an ongoing study of physicians' and nurses' responses to the needs of cancer patients. A questionnaire that assessed the willingness to endorse a request for assisted suicide was developed and piloted. Following approval by the Institutional Review Board, a survey packet containing this questionnaire and others was mailed to a total of 1,137 physicians, nurses, and social workers selected from 3 institutions in New York City: a cancer center, a university-based general hospital, and a hospital specializing in the care of the terminally ill. Consent for participation was indicated by the completion and return of the questionnaires. The respondents were informed that all completed materials would remain anonymous.

In total, 547 packets were returned (overall response rate: 48%). The response rate was 33% for physicians ($n = 200$), 64% for nurses ($n = 276$), and 72% for social workers ($n = 71$). The physician response rate was similar to that in previous studies.[31] Thirty-five percent of the participants were from the cancer center ($n = 191$, response rate: 57%); 45% were from the

general hospital ($n = 246$, response rate 38%); and 20% were from the hospital for the terminally ill ($n = 110$, response rate: 67%).

Survey Sites and Participants

At the cancer center, the packet was mailed to all physicians in the Department of Medicine, distributed to all nurses who worked on the medical units by the respective unit managers, and delivered to all the social workers through the administrative office in the Department of Social Work. All participant staff were full-time employees.

All full-time and private physicians on the roster of the Department of Medicine at the university-based general hospital received the survey materials by mail. The materials were distributed to all nurses who worked on the medical units and all social workers in the Department of Social Work by nursing and social work administrators, respectively.

The hospital for the care of the terminally ill admits patients for palliative care; most die within days or weeks. Survey materials were given to all full- and part-time physicians, all nurses, and all social workers through the office of the hospital's medical director.

Measures

Willingness to Endorse Assisted Suicide. Six vignettes were developed by the investigators, then revised on the basis of pilot administration to 63 physicians and nurses. The first four vignettes described patients with advanced cancer who requested the means for suicide in the setting of unrelieved symptoms or functional deterioration. These vignettes ended with 3 questions, the responses to which were obtained on 5-point Likert scales (from "strongly disagree" to "strongly agree"): 1) "the patient's request should be honored," 2) "in some situations, this type of request should be honored," and 3) "requests like this should never be honored."

Vignettes #5 and #6 were designed to clarify the validity of this assessment approach. Vignette #5 described a wartime situation in which an imminently dying comrade-in-arms who is about to be captured by the enemy requests euthanasia. Two questions followed this vignette: 1) "I would shoot my friend as he requests," and 2) "I believe that it would be moral and right to shoot my friend, even though I may not be able to bring myself to do it." Vignette #6 described a request for assisted suicide by a newly diagnosed patient with potentially curable breast cancer. Two questions followed: 1) "Would you be willing to write this patient a prescription for a large supply of a barbiturate?" and 2) "Would you be willing to write her a prescription for a large supply of a barbiturate if you did not have to worry about potential legal consequences?" A priori, the responses to Vignettes #5 and #6 were expected to demonstrate the strong influence of patient characteristics on the willingness to endorse a request for assistance in dying. We anticipated that a high proportion of the respondents would endorse euthanasia in Vignette #5 and a very small proportion would endorse this action in Vignette #6.

The responses of all subjects ($N = 547$) to the first 4 vignettes were subjected to a principal components factor analysis. This analysis confirmed the existence of a single factor that accounted for 70% of the variance. The scores on these four vignettes were therefore summed to yield a subscale, the scores of which were normally distributed and had very high internal consistency (alpha coefficient = 0.96). See Table 1.

The responses to Vignettes #5 and #6 conformed to our expectations and supported the validity of the measure. In response to Vignette #5, 70.1% of subjects ($n = 372$) stated that it was "moral and right" to shoot the dying soldier. There was hesitancy, however, in becoming actively involved in euthanasia: only 43.5% ($n = 224$) could imagine actually killing. Also, as expected, 97.4% ($n = 525$) would refuse to assist in the suicide of a potentially curable patient, and 89.7% ($n = 481$) would continue to refuse, even if there were no legal consequences from acceding to the patient's request. There

TABLE 1. Summary statistics on the study effects obtained from all respondents (N = 547)

Instrument	No. of Items	Possible Range	Actual Range	Mean ± SD	Median	Alpha Coefficient
Willingness to endorse assisted suicide	12	12–60	12–60	36.4 ± 12.8	38	0.96
Knowledge scale	5	5–25	5–25	18.4 ± 4.0	19	0.80
Level of religious belief	5	5–25	5–25	15.7 ± 4.9	16	0.90
Burnout subscales						
Diminished empathy	5	0–30	0–22	5.3 ± 5.0	4	0.76
Emotional exhaustion	9	0–54	0–54	19.8 ± 10.7	18	0.89
Accomplishment	8	0–48	13–48	39.0 ± 6.4	40	0.77

were no significant differences among the physicians, nurses, and social workers in the responses to Vignettes #5 and #6.

Knowledge of Symptom Management. Face-valid questions were developed to assess past education in pain and symptom management, participation in continuing education programs in this area, and perceived clinical capabilities. The five items that evaluated self-assessed clinical capabilities asked the subjects to grade the degree to which they 1) were adequately prepared in professional education for the management of cancer-related symptoms, 2) perceived themselves to have the information and skills necessary for the task, 3) have expert resources available to assist in this area, 4) perceived themselves to be competent in symptom-control therapies, and 5) perceived themselves to have the necessary authority to implement symptom-control measures. The sum of these items had high internal consistency (alpha coefficient = 0.80) and was used as a subscale in later analyses (Table 1).

Level of Religious Belief. The respondent was asked to indicate the religion that was observed or practiced during childhood and at present, if any. A 5-item subscale derived from a larger scale of religious beliefs, practices, and attitudes was then administered to assess level of religious belief.[32] Two items on this subscale queried the degree to which religion was practiced or observed in the present and during childhood. The other items determined the degree to which the subject perceived his or her observance of religion to be strict, the degree to which the subject perceived himself or herself to be a religious person, and the degree to which the subject perceived that spiritual beliefs affected his or her life. The items were anchored on a 5-point Likert scales from "extremely" to "not at all." The scores on this subscale were normally distributed and had high internal consistency (alpha coefficient = 0.90). (See Table 1.)

Maslach Burnout Inventory. The Maslach Burnout Inventory measures three components of the burnout syndrome:[33] emotional exhaustion, diminished empathy (depersonalization), and lack of personal accomplishment. The emotional exhaustion subscale assesses the degree to which subjects perceive themselves to be emotionally overextended and exhausted by work. The diminished empathy subscale measures the presence of a cynical, detached, and impersonal response toward patients. The personal accomplishment subscale assesses feelings of competence and achievement in clinical work. Internal consistency of all the subscales was high in the present sample; alpha coefficients were 0.89 for emotional exhaustion, 0.76 for diminished empathy, and 0.77 for personal accomplishment (Table 1).

Demographics and Personal Experiences. A series of questions evaluated demographics, years of professional experience, personal exposure to suicide or requests for euthanasia or assisted suicide during clinical practice, and other attitudes related to care of the dying. One important question asked the degree to which

there was concern that analgesic drugs contribute to patients' deaths.

STATISTICAL ANALYSES

Frequency distributions were calculated, and relationships among the various scales were assessed by using Pearson correlation coefficients.[34] Internal consistency for the scales was measured by Cronbach's alpha coefficients.[35] Group differences were examined by using analysis of variance for continuous variables and chi-square analyses for categorical variables.

In conducting the Pearson correlations, a low but significant correlation ($r = 0.11$, $P < 0.012$) was found between the level of religious belief and knowledge of symptom management scales. To explore the interaction effect, an analysis of variance was done by using the score on the scale of the willingness to endorse assisted suicide as the dependent measure, and level of religious belief and knowledge of symptom management as the independent measures. This demonstrated main effects for both independent variables ($P < 0.0001$ for level of religious belief and $P < 0.001$ for knowledge of symptom management) and a significant interaction effect ($P < 0.03$). The interaction effect, which indicated that the combination of a lower level of religious belief and less knowledge of symptom management was associated with higher scores on the willingness to endorse assisted suicide scale, was used in later multivariate analysis.

A cohort of social workers was included in the survey to provide comparative data particularly relevant to the issue of clinical experience. Although social workers may have exposure to patients with life-threatening disease and encounter patients or families with high levels of physical symptom distress, social workers do not possess the medical skills to assess or treat medical illness or symptoms and may have limited knowledge about prognosis or the availability of treatments. For this reason, this cohort was expected to yield data that could be compared with those acquired from the physicians and nurses and further illuminate the relationship between clinical experience and the willingness to endorse assisted suicide.

It was also recognized, however, that the substantive differences between the social workers and both the physicians and nurses could lessen the validity or generalizability of analyses on the combined data set. To better address the survey's primary objective, which was to explore the influences on practitioners' attitudes, the data from the social workers ($n = 71$) were excluded from the multiple-regression analysis[36] that examined the associations among potential predictor variables and the willingness to endorse assisted suicide. In the regression equation, the dependent variable was the willingness to endorse assisted suicide and the independent variables were 1) demographic variables (entered as dichotomous variables), 2) level of religious belief, 3) knowledge of symptom management, 4) the interaction term between level of religious belief and knowledge of symptom management, and 5) other items that were significantly correlated with the dependent variable.

RESULTS

The sample was very heterogeneous (Table 2). Ninety-eight percent of the nurses and 91% of the social workers were women, and 91% of the physicians and 88% of the social workers were Caucasian. More than half of the the physicians and social workers were Jewish, and two-thirds of the nurses were Catholic. Although years of professional experience varied, 86% of the physicians, 63% of the nurses, and 71% of the social workers had been employed more than 5 years. Differences in time spent managing symptoms related to cancer were more substantial: 15% of the physicians, 2% of the nurses, and 53% of the social workers had no contact whatsoever with these problems.

Prior exposure to patients who had requested assisted suicide or euthanasia, or committed suicide, also varied (Table 3). Almost two-thirds had discussed the issue of suicide with one or more patients in the past, and almost

TABLE 2. Subject demographics and years of professional experience

	Physicians (N = 200)	Nurses (N = 276)	Social Workers (N = 71)	Total (N = 547)
Age, years (median/range)	47 (29–76)	36 (21–67)	40 (26–63)	41 (21–76)
Gender, % (male/female)	81/19	2/98	9/91	31/69
Race[a]	91%W, 2%B, 3%H, 4%A	58%W, 23%B, 6%H, 9%A, 4%O	88%W, 4%B, 4%H, 2%A, 2%O	74%W, 13%B, 4%H, 6%A, 2%O
Religion[b]	28%C, 21%P 50%J, 1%O	67%C, 22%P 3%J, 8%O	19%C, 15%P, 60%J, 6%O	48%C, 21%P, 26%J, 5%O
Years of experience	≤ 5 14% 6–10 18% 11–15 16% > 15 52%	≤ 5 37% 6–10 22% 11–15 11% > 15 30%	≤ 5 29% 6–10 32% 11–15 23% > 15 16%	≤ 5 28% 6–10 22% 11–15 14% > 15 36%
Time managing cancer symptoms	None 15% ≤ 5% 32% 6%–25% 27% 26%–50% 17% > 50% 9%	None 2% ≤5% 6% 6%–25% 11% 26%–50% 18% > 50% 63%	None 53% ≤5% 18% 6%–25% 16% 26%–50% 9% > 50% 4%	None 13% ≤5% 17% 6%–25% 17% 26%–50% 16% > 50% 37%

[a]W = White, B = Black, H = Hispanic, A = Asian, O = Other.
[b]C = Catholic, P = Protestant, J = Jewish, O = Other.

half had been faced with a request for euthanasia. More than 20% treated at least 1 patient who later committed suicide.

More than two-thirds of the physicians and nurses, but only 23% of the social workers, believed that they were moderately or fully competent to manage pain and other symptoms. For many of the clinicians, however, this perceived competence did not derive from formal education. Only 36% of the physicians and 46% of the nurses stated that they had been moderately or very well prepared in professional education to manage symptoms (Table 3). One-half to two-thirds of those in each discipline had attended continuing education programs devoted to symptom management.

Items that evaluated level of religious belief also reflected a broad range of responses (Table 3). Thirty-three percent of the respondents perceived themselves to be "quite a bit" or "extremely" strict in observing religious practices, and 52% judged that spiritual beliefs affected his or her life to a similar degree.

There were significant group differences in the willingness to endorse assisted suicide. The respondents at the hospital devoted to the care of the terminally ill were significantly less likely to endorse assisted suicide than the respondents from the university-based general hospital (mean ± SD: 30.9 ± 12.3 vs. 38.5 ± 12.9, respectively, $P < 0.0001$) or the cancer center (mean ± SD: 30.9 ± 12.3 vs. 36.8 ± 12.2, $P < 0.0001$). The difference between the general hospital and the cancer center was not statistically significant. Subsequent analyses failed to identify characteristics of the professionals at these sites that could explain these differences.

Current religion (Catholic, Protestant, Jewish, and all others) was significantly associated with the willingness to endorse assisted suicide ($\chi^2_{[6df,\ n=366]} = 25.07$, $P < 0.0004$). The Catholic respondents were less likely to endorse assisted suicide than the other groups, and the Jewish respondents were more likely to endorse.

The social workers were significantly more likely to endorse assisted suicide than the physicians (mean ± SD: 44.6 ± 12.5 vs. 36.7 ± 12.6, respectively, $P < 0.0001$) or the nurses (44.6 ± 12.5 vs. 34.0 ± 12.2, $P < 0.0001$), and the physicians scored significantly higher on this measure than the nurses ($P < 0.03$). These findings were not explained by gender differences among the disciplines. There were no

TABLE 3. Frequencies of selected items relevant to the willingness to endorse assisted suicide

	Physicians (N = 200)	Nurses (N = 276)	Social Workers (N = 71)	Total (N = 547)
No. of patients discussed suicide	None 48% 1–3 36% 4–6 10% >6 6%	None 36% 1–3 41% 4–6 12% >6 11%	None 17% 1–3 47% 4–6 19% >6 17%	None 37% 1–3 40% 4–6 12% >6 10%
No. of patients discussed euthanasia	None 60% 1–3 30% 4–6 4% >6 6%	None 60% 1–3 27% 4–6 5% >6 8%	None 43% 1–3 31% 4–6 13% >6 13%	None 58% 1–3 29% 4–6 5% >6 8%
Any patients commit suicide	Yes 31% No 69%	Yes 16% No 84%	Yes 21% No 79%	Yes 22% No 78%
Adequately trained to manage cancer pain and other symptoms	Very well 10% Moderate 26% Somewhat 27% Poorly 28% Not at all 9%	Very well 15% Moderate 31% Somewhat 27% Poorly 21% Not at all 6%	Very well 3% Moderate 12% Somewhat 36% Poorly 19% Not at all 30%	Very well 12% Moderate 27% Somewhat 28% Poorly 23% Not at all 10%
Feel competent to control cancer pain and other symptoms	Fully 24% Moderate 45% Somewhat 23% Slight 7% Not at all 1%	Fully 25% Moderate 49% Somewhat 23% Slight 3% Not at all 0%	Fully 0% Moderate 23% Somewhat 18% Slight 20% Not at all 39%	Fully 21% Moderate 44% Somewhat 22% Slight 7% Not at all 6%
Observance of religion	Extremely 2% Quite of bit 22% Somewhat 27% A little 20% None 30%	Extremely 11% Quite a bit 32% Somewhat 21% A little 20% None 17%	Extremely 6% Quite a bit 9% Somewhat 28% A little 28% None 30%	Extremely 7% Quite a bit 26% Somewhat 25% A little 20% None 22%
Spiritual beliefs affect life	Extremely 11% Quite a bit 28% Somewhat 26% A little 20% None 15%	Extremely 22% Quite a bit 41% Somewhat 22% A little 11% None 4%	Extremely 14% Quite a bit 32% Somewhat 24% A little 17% None 13%	Extremely 17% Quite a bit 35% Somewhat 24% A little 15% None 9%

significant gender differences in the willingness to endorse assisted suicide across either institutions or disciplines.

The willingness to endorse assisted suicide was negatively correlated with level of religious belief ($r = -0.35$, $P < 0.0001$); knowledge of symptom management ($r = -0.21$, $P < 0.0001$); and amount of time spent managing the pain or other symptoms of cancer patients ($r = -0.21$, $P < 0.0001$). There was a low, but statistically significant, correlation between the willingness to endorse assisted suicide and the diminished empathy subscale of the burnout measure ($r = 0.12$, $P < 0.008$); the respondents with relatively less empathy were somewhat more likely to endorse requests for assisted suicide. A similarly low, but inverse, correlation was observed with age ($r = -0.11$, $P = 0.01$).

The multiple-regression analysis demonstrated that the scores on the assisted suicide measure were independently predicted by a relatively lower level of religious belief ($P < 0.0001$), greater concern that drugs used for pain contribute to patients' deaths ($P = 0.001$), diminished empathy ($P = 0.03$), lesser knowledge of symptom management ($P = 0.04$), and the interaction between lower level of religious belief and lesser knowledge of symptom management ($P = 0.04$). (See Table 4.) Although all significant, these variables together explained only 18.2% of the variance in the willingness to endorse assisted suicide or euthanasia.

TABLE 4. Multiple regresson analysis predicting the willingness to endorse assisted suicide (N = 547)

	Beta	*P*
Level of religious belief	–0.33	< 0.0001
Concern that drugs for pain management contribute to death	0.17	0.001
Diminished empathy	0.11	0.03
Knowledge of symptom management	–0.11	0.04
Interaction between level of religious belief and knowledge of symptom management	–0.11	0.04

Note: Variables entered into the model included discipline (physician vs. nurse), hospital, time spent managing pain, age, gender, years of professional practice, and subscales of the burnout measure. Multiple $R = 0.43$.

DISCUSSION

Proponents of legal protection for assisted suicide or voluntary euthanasia argue that these practices could be implemented with sufficient safeguards to ensure that each patient receives proper assessment and every option to choose an alternative approach.[8,9,37] Among other concerns, opponents have voiced the fear that clinicians may respond inappropriately to patients' requests by offering the means for suicide without attempting to manage the potentially reversible causes of suicidality, such as unrelieved pain or depression.[1,2,4,17–21,38] This debate is unresolved, and studies are needed to provide an empirical basis for some of the arguments on both sides. Although there can be no certainty that attitudes predict future behavior, systematic surveys of professional attitudes toward assisted suicide can be informative,[16,22–27] potentially clarifying the types of clinical concerns that would arise if physicians acquired legal protection.

Past studies have observed that the willingness to endorse assisted suicide is influenced by clinicians' personal and professional attributes, including religion and specialty.[15,16,24,28] In one recent survey,[24] Christian Fundamentalists and Catholics were relatively less likely to endorse the use of euthanasia than adherents of other religions, and physicians in family medicine and general medical practitioners were more likely to endorse euthanasia than physicians in other specialties.

The present survey confirmed the importance of religion as a determinant of attitudes. The Catholics were less likely and the Jews were more likely to endorse the request for assisted suicide. As expected, we also identified a previously unreported association between the level of religious belief, irrespective of religion, and attitudes toward assisted suicide. As the intensity of religious belief increased, the willingness to endorse assisted suicide declined. The importance of religious beliefs and religious observance as determinants of attitudes about assisted suicide underscores the salience of personal attributes in the reactions of professionals to an emotionally charged issue with strong ethical implications. Although the desires and medical status of the patient may be central to the practitioner's response to a request for assisted suicide, personal factors that are unique to the individual practitioner are very likely to influence this response. Given the variability in these personal factors, the attitudes and actions of clinicians are likely to remain highly diverse. Equally important, it is also likely that different clinicians would respond in varying ways to the same patient request.

This survey also confirmed the relevance of professional discipline and clinical experience. The data support the hypothesis that clinical experience with patients who have advanced medical illness may contribute to a lessened willingness to sanction assisted suicide. In our study, the professionals with the least exposure to such patients, the social workers, were more willing to endorse assisted suicide than either the physicians or nurses; the clinicians with the most exposure, specifically those employed by the hospital for the care of the terminally ill, were significantly less willing to endorse assisted suicide than those at the other sites. The possibility that clinical experience with ill patients reduces the willingness to endorse as-

sisted suicide has been suggested in another recent survey[16] and may have important implications about the types of experiences that clinicians should have before they are adequately prepared to handle requests for assisted suicide. Further studies are needed to explore the degree to which exposure to patients with life-threatening illness provides clinicians with assessment skills needed to respond appropriately to a request for assisted suicide.

The findings of the multivariate analysis (Table 4) have provocative implications. The willingness to endorse assisted suicide was significantly associated with less knowledge of symptom management and more symptoms of burnout. This finding underscores the concern about the potential for inappropriate clinician response to patients' request for assistance in dying. Deficiencies in physicians' knowledge of cancer pain management have been amply demonstrated,[39,40] and it is troubling to consider the potential influence of inadequate knowledge on the decision to assist a patient in dying. This concern is the basis for the admonition from the World Health Organization that laws prohibiting assisted suicide or euthanasia should not be relaxed until access to optimal palliative care is ensured.[41]

The data on professional burnout raise a similar concern. Burnout, which is characterized by emotional exhaustion, depersonalization, and feelings of low personal accomplishment, is relatively common among oncologists and has been associated with high levels of work-related stress, lack of satisfaction from professional status or from relationships with patients, and a perception of impotence or lack of available resources.[31,42] Burnout, or the characteristics that contribute to it, could compromise the type of sensitive assessment that is fundamental to the management of patients who express high levels of suffering associated with life-threatening disease.[43,44] Clearly, the response to a patient's request for assisted suicide should not be influenced by the clinician's difficulties in coping with the challenges of the situation. Although the correlation between the burnout scale and the willingness to endorse assisted suicide measure was low ($r = 0.12$), the relationship was confirmed in the multivariate analysis and deserves additional evaluation.

These data should be interpreted cautiously. Although the willingness to endorse assisted suicide measure had high internal consistency, a broad distribution of scores, and some evidence of validity, formal validation could not be performed because of the lack of related criterion measures. It cannot be assumed that this measure, or any measure of professional attitudes, has predictive validity for clinician behavior. Equally important, the generalizability of the results can be questioned on the basis of an overall response rate of 48% (which included a response rate of only 33% for physicians). We cannot ascertain the similarity of the sample to the group that did not respond and cannot confirm that the findings characterize a larger proportion of professionals than those who did return the questionnaire. Finally, the finding that only 18.2% of the variance in the dependent measure could be explained by the multivariate analysis also suggests that other characteristics that were not assessed in this study may be as important as those evaluated. This finding suggests that future investigations should explore a broader range of potential personal and professional variables.

Nonetheless, the results suggest that a variety of characteristics, including knowledge of symptom management and psychological factors such as burnout, could play a role in at least some professionals' responses to requests for assisted suicide. Although the findings cannot be assumed to predict behavior, the concern about the potential for an inappropriate response is emphasized by these data. Additional empirical investigations of these issues are needed.

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