Working Paper

February 2002 #58

Attitudes of Family Physicians in Washington State Toward Physician-Assisted Suicide

by

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About the Center

The WWAMI Rural Health Research Center (RHRC) is one of six centers supported by the Federal Office of Rural Health Policy (FORHP), a component of the Health Resources and Services Administration (HRSA) of the Public Health Service. The major focus of the WWAMI RHRC is to perform policy-oriented research on issues related to rural health care. Specific interests of the Center include the training and supply of rural health care providers and the content and outcomes of the care they provide; the availability and quality of care for rural women and children, including obstetric and perinatal care; and access to high-quality care for vulnerable and minority rural populations.

The WWAMI Rural Health Research Center is based in the Department of Family Medicine at the University of Washington School of Medicine, and has close working relationships with the WWAMI Center for Health Workforce Studies, Programs for Healthy Communities (PHC), and the other health science schools at the University, as well as with other major universities in the five WWAMI states: Washington, Wyoming, Alaska, Montana, and Idaho. The University of Washington has over 30 years of experience as part of a decentralized educational research and service consortium involving the WWAMI states, and the activities of the Rural Health Research Center are particularly focused on the needs and challenges in these states. The WWAMI RHRC also works closely with the associated Area Health Education Centers.

The Rural Health Working Paper Series is a means of distributing pre-publication articles and other working papers to colleagues in the field. Your comments on these papers are welcome, and should be addressed directly to the authors. Questions about the WWAMI Rural Health Research Center should be addressed to:

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The WWAMI Rural Health Research Center is supported by the Federal Office of Rural Health Policy, Health Resources and Services Administration, Public Health Service (grant #5UICRH00035-02, $479,170, 100%).

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This study was funded by the Health Resources and Services Administration's (HRSA's) Federal Office of Rural Health Policy (FORHP) through the WWAMI Rural Health Research Center, Department of Family Medicine, University of Washington. The survey was funded by the Washington Academy of Family Physicians. We are grateful to all the physicians who took time from their busy schedules to participate in the survey.

Abstract

Background: The topic of physician-assisted suicide is difficult and controversial. With recent laws allowing physicians to assist in a terminally ill patient's suicide under certain circumstances, the debate concerning the appropriate and ethical role for physicians has intensified. However, little is known about the relationship between various physician characteristics and their attitudes toward physician-assisted suicide. This paper utilizes data from a 1997 survey of family physicians (FPs) and general practitioners (GPs) in Washington state to test two hypotheses: (1) older respondents will indicate greater opposition to physician-assisted suicide than their younger colleagues, and (2) male and rural physicians will have more negative attitudes toward assisted suicide than their female and urban counterparts.

Methods: A six-page mail questionnaire was administered to all active FPs/GPs in Washington state. After three mailings, questionnaires were returned by 1,635 eligible respondents, for a 68 percent response rate. Results described in this paper reflect the responses of the full-time, practicing FPs/GPs who completed the survey. A ZIP code system based on generalist Health Service Areas was used to designate those practicing in rural versus urban areas.

Results: One-fourth of the respondents overall indicated support for physician-assisted suicide. When asked whether this practice should be legalized, 39 percent said yes, 44 percent said no, and 18 percent indicated that they did not know. Over half (58%) of the study sample reported that they would not include physician-assisted suicide in their practices even if it were legal. Responses by age groups closely paralleled the group overall, with no consistent patterns discerned by age. The study results clearly show that attitudes about physician-assisted suicide vary significantly between urban females and rural males, with the former being more supportive of assisted suicide than the latter. Many respondents, especially females, were neutral or uncertain of their positions concerning the legalization of and their willingness to assist suicides.

Conclusions: The results of this survey analysis indicated that substantial differences in opinion toward physician-assisted suicide exist between physicians based on gender and rural-urban practice location. There were few consistent response patterns attributable to age, but there was a significant pattern of opposition on the part of rural male respondents compared to urban female respondents. Even among those reporting support for physician-assisted suicide, many expressed reluctance about including it in their practices. As legal challenges and ethical discussions continue, hopefully we can achieve a greater level of

consensus around this topic. These findings highlight the need to be aware of systematic differences in FP/GP attitudes by gender, rural-urban practice status, and other factors.

Background and Introduction

"Suicide is painless," at least according to a lyric in a theme song for a popular television series (Mandel and Altman, 1970). Unfortunately, the topic of physician-assisted suicide has been far from painless for physicians in the United States. Several states in the U.S., including Oregon, recently passed legislation that will, assuming it is not endlessly delayed or struck down by the courts, allow a physician, in certain circumstances, to assist a terminally ill patient with the act of ending the patient's life. These new laws have added fuel to an already volatile debate regarding the appropriate and ethical role (or lack thereof) of the physician in assisting a patient with suicide.

Much has been written on this topic, and it is worthwhile to explore some of this literature. Back et al. (1996) define physician-assisted suicide as "actions that physicians perform (on terminally ill patients) with the primary intention of hastening death, as opposed to practices in which the primary intention is pain control, with death hastened as a secondary result" (p. 20). There has long been a debate over the morality of physician-assisted suicide and euthanasia, with many recent tracts written on this topic (Cassel and Meier, 1993; Brody, 1992; Council on Ethical and Judicial Affairs, 1992; Jecker, 1994; Annas, 1994; Fins and Bacchetta, 1995; AGS Ethics Committee, 1995; Brody, 1995). In light of the religious and ethical basis of many of these arguments, coupled with a wide spectrum of scholarly opinion, we are not likely to see a clear resolution of the aspects of this discussion that regard morality in the near future.

It is useful to consider what we have learned about the actual exercise of physician-assisted suicide. Since these practices have not been legal in the United States until recently, much of what we know about the actual clinical settings and circumstances in which physician-assisted suicide is practiced has come from the Dutch experience (van der Maas, Van Delden, Pijnenborg, and Looman, 1991). Several observations have been made about the Dutch experience, including both the current situation and the changes that have occurred over the past few years. According to Hendin and colleagues, the past two decades of the history of legalized physician-assisted death in the Netherlands has been a "slippery slope," moving from simply considering assisted suicide to giving legal sanction to both physician-assisted suicide and euthanasia. Practice has also migrated from euthanasia for terminally ill patients to euthanasia for chronically ill patients (both for physical illness and for psychological distress) and from voluntary euthanasia to nonvoluntary and involuntary euthanasia (Gunning, 1991; Hendin, 1996). Comparing Dutch data from 1990 with that obtained in 1995, it was found that the

death rate from euthanasia increased from 1.9 percent to 2.3 percent of all deaths (Hendin, Rutenfrans, and Zylicz, 1997).

Another change that has occurred in the Netherlands over time has been the erosion of guidelines that had been widely accepted—almost every guideline developed to control the practice and "protect" patients has been modified or violated (Gomez, 1991). Among the examples of this transformation is the fact that in a 1990 study, 50 percent of the physicians considered it appropriate to suggest euthanasia to patients, even though earlier guidelines had required that euthanasia be considered only after voluntary, well-considered, persistent requests by the patient (van der Maas, Van Delden, Pijnenborg, and Looman, 1991). Yet another concerning trend has been the recognition that about a quarter of Dutch physicians who practice euthanasia stated that they had "terminated the lives of patients without an explicit request" (Hendin, Rutenfrans, and Zylicz, 1997; van der Maas, van der Wal, Haverkate, et al., 1995). Finally, some suggest that interactive decisions have been compromised in the Netherlands to the extent that "voluntariness is compromised, alternatives are not presented, and the criterion of unrelievable suffering is bypassed"(Hendin, Rutenfrans, and Zylicz, 1997; Hendin, 1996; Gomez, 1991).

Yet another area of the literature that merits consideration is the set of legal questions surrounding physician-assisted suicide. Ortenlicher (1996) notes that although public opinion polls have consistently demonstrated that the majority of the public supports the right to assisted suicide for terminally ill patients, in California a referendum permitting assisted suicide has been rejected by the voters and an early Washington state referendum was also rejected. Annas (1994) attributes this rejection to concern about the adequacy of the safeguards rather than opposition to assisted suicide itself. It is interesting to counterpoise the U.S. public's concern about adequate safeguards in light of the Dutch experience with "erosion" of protocols and safeguards. As the state legislation is challenged, and as it winds its way through the legal system to the U.S. Supreme Court, intense analyses of possible legal arguments, both in favor of and in opposition to the practice, have been developed. Angell and Foley eloquently expressed these opposing views in editorials in the *New England Journal of Medicin*e (Angell, 1997; Foley, 1997). Just as in the religious and ethical arguments cited earlier, compelling legal cases can be made in support of both viewpoints. While Oregon is the only state in the nation where terminally ill people are allowed to take their own lives with a doctor's prescription under the state's Death with Dignity Act of 1997, recent action was taken by the U.S. Attorney General to revoke the license of any physician who prescribes such drugs for that purpose, even under the terms of the Oregon law (New York Times, 11/7/01, "U.S. Acts to Stop Assisted Suicide." p. A1, A15). In the case of the U.S. Supreme Court, however, decisions will be forthcoming.

Lately, since the practice has become legal in some states, investigators have begun to consider specific aspects of physician-assisted suicide and active euthanasia in the United States. Nationally, many U.S. physicians report receiving requests for physician-assisted suicide, and six percent reported that they have complied with these requests (Meier, Emmons, Wallenstein, Quill, Morrison, and Cassel, 1998). Back and his colleagues reported on the patient requests and physician responses noted in Washington state (Back, Wallace, Starks, and Pearlman, 1996). They found that patient requests for physician-assisted suicide and euthanasia are not rare, with 12 percent of their respondents noting explicit requests from patients for physician-assisted suicide in the year prior to their study. They went on to note that physicians occasionally provided these practices, even though they were illegal in Washington state (at the time their study was published). Slome et al. (1997) used an anonymous survey to obtain data from 228 physicians in San Francisco on attitudes and practices regarding assisting the suicide of patients with HIV disease. Almost half (48%) of the physicians responded to a case vignette by indicating that they would be likely or very likely to grant the request of an AIDS patient for assistance with suicide, compared to 28 percent of respondents in an earlier (1990) survey. Over half (53%) reported that they had granted a patient request for physician-assisted suicide at least once. Factors associated with a physician's having actually assisted in a patient suicide included having a large number of patients with AIDS who had died, having received a higher number of indirect requests for assistance from patients, having a stated gay, lesbian or bisexual orientation, and having a higher "intention to assist" score on the case vignette.

Chin and colleagues (1999) collected data on all terminally ill Oregon residents who received prescriptions for lethal medications under the Oregon Death with Dignity Act and who died in 1998, and from a comparison group of persons who died from similar illnesses but did not receive prescriptions for lethal medications. The choice of physician-assisted suicide was not associated with patient educational level or health insurance coverage. Fourteen physicians wrote prescriptions for medication for the 15 case patients and forty physicians provided end of life care for the 43 control patients. While the case and control physicians were similar with regard to sex, specialty, age and number of years in practice, case patient physicians tended to be older and in practice longer. Forty percent of case patients were not able to obtain a prescription from the first physician they approached, and fewer than one quarter of the control physicians would have written a prescription for lethal medication had it been requested.

Bushwick, Emrhein, and Peters (2000) surveyed 372 medical staff and 105 resident house staff from a multi-residency community teaching hospital in Pennsylvania. Significantly more house staff than medical staff were willing to support

legal and professional reform of prohibitions against physician-assisted suicide and active voluntary euthanasia, to participate in or request these services if legal, and to request these services for members of their families. However, there were no significant differences between these two groups in actual assisted death practices.

In a cohort study of 3,299 U.S. oncologists regarding their attitudes towards euthanasia and physician-assisted suicide for terminally ill patients with unremitting pain (Emanuel et al., 2000), 22.5 percent approved the use of physician-assisted suicide and 6.5 percent supported euthanasia. A total of 15.6 percent indicated that they would be willing to provide physician-assisted suicide and 2 percent would be willing to carry out euthanasia. Of the surveyed oncologists, 62.9 percent had received requests for these practices during their career, 31.1 percent in the last 12 months; 3.7 percent had performed euthanasia and 10.8 percent had performed physician-assisted suicide during their career. Those respondents who were less likely to support euthanasia or physician-assisted suicide were more reluctant to increase the dose of intravenous morphine and had sufficient time to talk about end of life care issues to dying patients. The authors note a significant decrease in support of physician-assisted suicide or euthanasia among U.S. oncologists, from 45.5 percent in 1994 to 22.5 percent in this 2000 study. The study's low response rate (39.8%) casts into question the generalizability of these results.

Novielli and colleagues (2000) surveyed 835 physicians across various specialties, who had graduated from Jefferson Medical College from 1987-92, to examine the extent and correlates of their endorsements of the legalization of assisted suicide. Thirty-four percent endorsed legalization, 41 percent opposed it, and 25 percent expressed no opinion. Endorsement of legalization was not associated with age or gender. The highest rate of endorsement was found from orthopedic surgeons (52%), followed by psychiatrists (41%) and physicians in hospital-based specialties (40%). The lowest endorsement rates were for medical subspecialists (25%), general internists (28%), emergency medicine physicians (31%), family physicians (33%) and general pediatricians (34%). Those in "people-oriented" specialties involving direct and ongoing patient care were less likely than the more technologically-oriented physicians to endorse legalization. Most of the study sample (92%) favored medical school preparation for and provision of compassionate end of life care.

In a survey of targeted physicians licensed by the Connecticut Department of Public Health in 1997 (2,805 completed the survey for a 39.6% response rate), Curry and colleagues (2000) found that religious affiliation, religiosity, ethnicity, and medical specialty were strongly associated with views on physician-assisted suicide. Nonrespondents were more likely to be female and to be family physicians or

internists. Age of the physician and years in practice were positively associated with supportive views on writing lethal prescriptions. The majority agreed that a physician should be able to withhold or withdraw life sustaining medical treatment (91%), withdraw artificially delivered food and hydration (83%) and prescribe analgesics to relieve pain (92%). Seven percent of the respondents reported that they had been asked to write a lethal prescription during the last year, and 15 percent of these actually complied with at least one such request. One-third of the respondents said they would write a lethal prescription if it were legalized and 49 percent of those who would not do so indicated that they would refer the patient to another physician.

In 1999, Ganzini and colleagues (2001) surveyed all Oregon physicians who were eligible to prescribe under that state's Death with Dignity Act, enacted in 1997. Of 3,981 eligible physicians, 66 percent responded to the survey. Over three-quarters (76%) of physicians who cared for terminally ill patients in the past year reported efforts to improve their knowledge regarding use of pain medications for the terminally ill and 70 percent indicated improvements in their confidence in prescribing pain medication. Thirty percent of the respondents agreed with the statement that writing a lethal prescription under the Death with Dignity Act was immoral or unethical, 59 percent disagreed and 11 percent neither agreed nor disagreed. Four out of five physicians indicated that they had not changed their views since the law was passed. Over one-third (36%) reported that they had been asked by a patient whether they were willing to prescribe a lethal medication. Seventy-three of the physicians reported that they were willing to write such a prescription and had received a request from a patient, but of these, 27 percent were not confident in their ability to determine when a patient had less than six months to live. While a relatively large proportion of respondents was not morally opposed to assisted suicide, many had practical concerns, only a minority was willing to provide a lethal prescription to a qualified patient, and some who were willing to prescribe lacked knowledge of patient eligibility.

With the recent passage of legislation dealing with this issue in Oregon, the publicity these topics have received, and recent legal discussions concerning this issue, the authors hypothesized that there might have been a significant increase in requests by patients for physician-assisted suicide. Additionally, the authors suspected there might be discernable differences in physicians' beliefs about physician-assisted suicide based on the physician's gender and the location of the physician's practice (rural versus urban). As physicians attempt to understand the requests of their patients, and their likely attitudes toward these requests, it will be very important to discern significant attitudinal patterns between physicians.

The purpose of this paper is to utilize data from the 1997 Washington Academy of Family Physician's (WAFP's) periodic survey to test the following two hypotheses for full-time clinical family physicians (FPs):

- FPs and general practitioners (GPs) who are older will indicate more opposition to physician-assisted suicide than their younger colleagues.
- FP/GPs who are male and FP/GPs who are practicing in rural locations will be more opposed to physician-assisted suicide than their female and urban counterparts. In other words, it is hypothesized that FP/GP attitudes about physician-assisted suicide will exhibit a gradation in the following order: rural males, urban males, rural females, and urban females. This implies that both gender and rural-urban status are associated with attitudes but that gender is the more important factor.

An additional study objective is to explore other associations between physician characteristics and physician-assisted suicide opinions.

Methodology

A brief description of the methods of the 1996-97 FP/GP physician survey conducted by the WAFP is provided below.

Questionnaire Development: A six-page mail questionnaire was developed from past WAFP questionnaires and from suggestions of WAFP committees and members. A final questionnaire was reviewed by selected members. In many cases, questions from previous questionnaires were included without change to allow for comparisons across time. Many new questions were included and several of the questions that had been on several previous questionnaires were deleted, often because they had become less relevant. The questionnaire was quite dense and contained eight sections: demographics, medical education, practice characteristics, practice finances, clinical content of practice, physician-assisted suicide, telemedicine and computers, and satisfaction.

For the third mailing, an abbreviated version of the questionnaire was created. This three-page questionnaire was designed to put less burden on the respondents and it was hoped this would illicit responses that might not have been received with the longer version of the questionnaire. All the questions on the short version were identical with their counterparts on the long version. Copies of both the long and short versions of the questionnaire are available from the authors.

Sampling Frame: The survey sampling frame included all active FP/GPs within Washington state. Active is defined to mean that the physicians must be working in the health care field (e.g., clinical practitioners, clinic administrators, and public health officers). The real focus of the study was clinically active family and general practice physicians. Residents were excluded.

A list of all FP/GPs was created for this survey by obtaining the mailing lists of the Washington Academy of Family Physicians and the family and general practice portion of the Washington State Medical Association. In addition, the mailing address list from the American Medical Association was also obtained. While the Washington State Department of Health has a list available of all licensed Washington state physicians, it does not include the specialties of the physicians. The three family and general physician lists were then combined and duplicate names were deleted. Questionnaires were mailed to all the FP/GPS practicing in Washington state so far as could be ascertained from the various mailing lists. FP/GPs are referred to as FPs throughout the remainder of this paper.

Mailings: The long version of the questionnaire was first mailed to the entire list of physicians in June of 1996. Each mailing consisted of a letter of introduction and encouragement from the WAFP and a postage-paid return envelope. Envelopes were stamped with requests for address corrections. Responses were recorded, and those questionnaires returned with address-correction new addresses were mailed a second time. A second mailing was made to the non-respondents using the identical procedure in January of 1997. A third mailing of the short version of the questionnaire occurred in August of 1997 with the identical procedure.

Responses: Questionnaires were sent to 3,025 potential respondents. Questionnaires for 85 names were returned and deemed to be out-of-scope because of various circumstances (e.g., deceased, moved out of state, and no forwarding address). Questionnaires were returned by 1,635 respondents.

Nonresponse Survey: In November of 1997, a brief non response survey was sent to 100 randomly selected nonrespondents. Two mailings were followed by phone follow-up. Information was returned either by mail or phone for 86 of the 100 sample physicians. In addition, it was determined that 3 of the sampled physicians no longer practiced in Washington state and that 11 others could not be located. Thus, it appears that for every 100 apparent nonresponses 64 were actually active FP/GPs practicing in Washington state and were not residents. The other 36 were either unreachable or had moved out of Washington.

Estimated Response Rate: With the use of the information gained from the non response survey, it is estimated that 68.0 percent of those eligible who actually

received the questionnaire responded. This is quite amazing given the length and complexity of the questionnaire and the low response rates that are being recorded for many other physician surveys (Konrad, Slifkin, Stevens, and Miller, 2000). While 1,635 responses are reported, some of those initially logged into the study were actually out of scope upon closer analysis (e.g., residents).

Coding, Data Entry, and Data Cleaning: The information from the returned questionnaires was coded and data entered for analysis. The data were generally checked for systematic errors during routine computer analyses. For instance, checks were made to detect duplicate entries or entries that were missing (i.e., sequential identification numbers that were missing). In addition, listings of the values for each of the variables were examined for errors and numbers that were clearly out of range. Responses to the few open-ended questions were coded into categories. In addition, open-ended responses to the "please specify" instructions for many questions were categorized, data entered, and analyzed.

Determination of Respondent Analysis Groups: The substance of this report involves the attitudes of full-time clinically active FPs. Full-time FPs had to meet the following criteria to be included in the analyses: (1) responses that clearly show the respondent as a family or general physician, (2) not a resident, and (3) they had to respond that, in at least one of two places, they spent 30 or more hours in a typical week in direct patient care, or they had 75 or more patient visits in a typical week. The number of physicians designated as full-time clinical FPs for the purposes of this study is 1,074. Part-time clinically active FPs were defined using the same definition as full-time, except that they were required to have only 1 direct patient care hour or 1 visit during a typical week and less than 30 direct patient care hours and 75 visits. The number of physicians designated as part-time clinician FPs for the purposes of this report is 270. Thus, 20.1 percent of the clinically active FPs were considered part-time and 79.9 percent were full-time. For many of the analyses the full-time FPs were divided into four groups: (1) urban females (197), (2) urban males (571), (3) rural females (53), and (4) rural males (248). The relatively low number of rural female respondents reflects their scarcity.

Rural/Urban Definitions: We used a ZIP code system of designating rural and urban areas based on the Washington State Department of Health's and Center's collaboratively developed generalist Health Service Areas (HSAs), an approach originally developed to estimate state generalist provider supply and requirements. All ZIP codes were assigned to the nearest generalist care center (i.e., population centroid of ZIP code area to the nearest rural or urban hospital or past rural hospital taxing district center) based on travel distance. Providers were then designated as rural or urban based on their principal practice ZIP code.

Statistical Methods: The appropriate standard statistical tests were employed to determine the significance of differences (e.g., Chi-square and t-test), with the utilization of a 95 percent criterion of $p \leq .05$. While the overall confidence intervals (CIs) employed in Table 2 are based on a two-tailed distribution, the rest of the analyses utilize a one-tailed approach. With 950 respondents, the one-tailed CIs for 50, 60, 70, 80, and 90 percent are plus or minus 1.6, 1.6, 1.5, 1.3, and 0.9 percent. For the three large rural-urban and gender subgroups, the CIs on an estimate of 50 percent are plus or minus 3.8 (urban females), 2.2 (urban males), and 3.4 (rural males) percent. Estimates for rural females should be viewed with caution because of the small number of cases upon which they are based and the relatively wide CIs (CI= 7.5%). However, even for the rural female subgroup, it is noted that the respondents represent nearly 70 percent of all of Washington's practicing rural female FPs.

Because the hypotheses in this study are directional, one-tailed tests of significance and estimates of CIs are utilized. For the four age groups (denoted here as A, B, C, and D) it is hypothesized that A>B, B>C, C>D, and the corollaries that A>C, A>D, and B>D, where A is the youngest group, B is the oldest group, and greater than denotes more support of physician-assisted suicide. Likewise, the same relationships are hypothesized for the four rural-urban status/gender groups where A represents urban females, B represents urban males, C represents rural females, and D represents rural males.

In addition, multiple logistic regression analysis was used to determine whether the rural-urban/gender and age findings remained consistent after other factors were taken into account.

Results

Results described in this paper reflect the responses of the full-time clinical FPs/GPs who completed the survey.

Demography and Background of Study Population: Table 1 provides demographic and practice characteristics of the study population of full time clinical FPs and GPs in Washington state who responded to the survey (N= 1,074). The mean age of responding physicians was 45.7, and the gender breakdown was 77 percent male and 23 percent female. The majority (91%) were white, with 5 percent Asian, less than 1 percent African American, 1 percent American Indian, and 3 percent other. Most of the respondents (89%) reported that they were married.

Educational Background and Practice Characteristics: Just over half (52%) of the study physicians graduated from medical school and/or did their residency at the University of Washington. The typical respondent worked 48 hours per week. In terms of practice type, 20 percent described themselves as being in solo practice, 43 percent in a single -specialty group, and 37 percent in a multi -specialty group. Almost all of the respondents (94%) indicated that they had hospital privileges. Twenty-six percent reported that their net practice income was less than $91,000, and 36 percent reported that their income came from salary only. The mean number of years practicing in the same town was 11. In terms of practice location, 28 percent practiced in rural and 72 percent in urban areas. Sixty percent of respondents answered that the number of patients they saw was optimal, 30 percent indicated that they were too busy, and 9 percent said they were not busy enough.

Attitudes Toward Physician-Assisted Suicide: Respondents were asked a series of questions to ascertain their attitudes toward and experience with physician-assisted suicide (see Table 2). While most physicians in the study (88.1%) reported that they had not had any patient requests for physician-assisted suicide during the last year, 11.3 percent reported 1 to 5 such requests. Asked to characterize their beliefs, two-thirds (67%) of the study physicians responded that they believed in withholding life-prolonging treatment to reduce suffering by shortening the patient's life, 25 percent indicated a belief in assisting a patient in physician-assisted suicide and 5 percent believed in making every effort to preserve and prolong life. When asked whether they believed physicians should be legally able to assist terminally ill patients in suicide, 39 percent said yes, 44 percent said no, and 18 percent answered don't know. Interestingly, while 39 percent indicated that physician-assisted suicide should be legal, only 15 percent said they would include it in their practice if legalized. Over half (58%) of respondents said they would not include physician-assisted suicide in their practice even if it were legal, and over one-quarter (27%) said they did not know. Finally, in response to a question about which policy position the WAFP should adopt regarding physician-assisted suicide, 32 percent said the WAFP should pursue changes in the law to legalize physician-assisted suicide, 28 percent said it should stay neutral on this issue, while 37 percent were opposed to a policy promoting legalization.

Provider Age and Attitudes Toward Physician-Assisted Suicide: Responses to the attitudinal questions above were next analyzed by physician age (Table 3). Overall, there were few consistent or significant response patterns when responses were broken down by age of respondent. Only the responses to the general belief question varied significantly by age ($p = .019$). When queried about their general beliefs about physician-assisted suicide, rural physicians ages 51-60 and those 61 and older were more than twice as likely as those 41-50 and those under 41 to

indicate that they would make every effort to preserve life (i.e., responses for the two younger age groups were each significantly different from those of each of the older two age groups with the exception of the youngest to the oldest [.073]). However, the percentage of respondents overall who indicated that they would make every effort to preserve and prolong life was relatively small. Those under the age of 41 were the most likely (69%) and those 51-60 the least likely (62%) to indicate that they would withhold life-prolonging treatment to reduce suffering. Respondents with a favorable stance toward physician-assisted suicide ranged from 22 percent among physicians 61 and older to 25 percent of those less than 41 years old.

In response to a question about whether physician-assisted suicide should be legal, responses were markedly similar (no significant differences) across age groups, with about 40 percent of each age category supporting legalization of physician-assisted suicide, and just over 40 percent of each age group opposing its legalization.

Physicians over the age of 61 indicated that, if it were legal, they would be most likely to perform physician-assisted suicide (22%). Yet even within this age bracket, 50 percent were certain they would not assist with suicide. In other age categories, the percentage of those physicians who would assist with suicides was much lower—ranging from 13.2 to 15.5 percent. Similarly, 57.6 to 59.9 percent of physicians in these younger age categories indicated they would not assist with suicide. About one-quarter of each age group indicated that they did not know.

Finally, when asked about suggested state specialty organization policy concerning physician-assisted suicide, almost one-third of physicians from each age category answered that the WAFP should pursue legalization of physician-assisted suicide. Those ages 61 had the highest percentage of responses supporting a WAFP policy promoting legalization (32.9%) and a neutral policy (37%) and the lowest percentage of responses advocating a policy that opposed legalization (30.1%, compared to a high of 40.5% among those ages 51-60). A relatively high percentage of responses across all age groups, ranging from 25.5 to 37 percent, supported a neutral position.

In sum, the responses when age groups were distinguished closely paralleled the responses of the group overall. While physicians in the oldest group were more likely than those in the other age categories to indicate that they would perform physician-assisted suicide if it were legal, they were no more likely than those from the other age groups to think physician-assisted suicide should be legalized. The age group most consistently opposed to physician-assisted suicide included those

aged 51-60. Thus, there was no consistent pattern by age wherein the older the respondent, the more likely that a particular view would be upheld.

Rural/Urban Practice Location and Physician Gender and Attitudes Toward Physician-assisted Suicide: As shown in Table 4, rural male study physicians were the most likely (71%) and both urban (63%) and rural (61%) female physicians the least likely to indicate a belief in withholding life-prolonging treatment to reduce suffering. Urban female physicians were the most likely to report that they would perform physician-assisted suicide if it were legal (29%), followed by rural female physicians (26.5%) and urban male physicians (25%), while rural male physicians were the least likely to do so (19.5%). Interestingly, rural female physicians were much more likely (8.2%) than urban female physicians (1.6%) to answer that they would make every effort to preserve life.

Table 5 shows responses to the question of whether physician-assisted suicide should be legalized, by practice location and gender. Between 31 and 42 percent of the study physicians contended that physician-assisted suicide should be legal, with urban females most likely and rural males, as hypothesized, least likely to uphold this position. Rural male providers were the most likely to oppose legalization of physician-assisted suicide (54%) while urban and rural females were the least likely to do so (31 and 32% respectively). The urban male responses fell somewhere in between. Notably, rural and urban female physicians were nearly twice as likely as their male peers to answer "don't know."

Less than one-fifth of the study physicians in each category reported that they would participate in physician-assisted suicide even if it were legal, ranging from 12 percent among rural males to 17.5 percent among urban females (see Table 6). About two-thirds of rural male respondents (65%) indicated that they would not participate in this practice even if it were legal, in contrast to 49 percent and 50 percent among urban and rural females. Urban males were slightly less likely than their rural male counterparts to express opposition to physician-assisted suicide even if it were legal (59% vs. 65%).

Table 7 shows respondent opinions about which positions on physician-assisted suicide should be taken by the WAFP, across these same four gender and practice location categories. Rural males were the least likely (24%) and rural females the most likely (40%) to indicate that the WAFP should pursue legalization of physician-assisted suicide. Rural males were most likely (45%) and urban females least likely (23%) to believe that the WAFP should oppose legalization. A relatively large percentage of study physicians, ranging from 19 percent among rural females to 35 percent among urban females, felt that the WAFP should remain neutral.

Regression Analysis Results: Multiple logistic regression analysis was used to determine whether the results described above were independent of possible confounding factors: ethnicity, race, rural background, marital status, international medical school graduate (IMG) status, patient visit volume, practice location type, high income, practice type, inpatient clinical activity, reimbursement arrangement, hospital admitting privileges, practice site, net clinical income, and employer type. The variables of interest were dummy variables for urban female, urban male, rural female, and rural male and physician age and age squared. Regression analysis was performed on the physician-assisted suicide general belief, legalization, perform if legal, and state association policy responses (dependent variables). These variables were recoded so that a 1 indicated negative physician-assisted suicide responses and zero otherwise. In all cases, the variables of interest maintained the same relationships as described above even after the control variable effects were held constant. For example, significantly more rural male FPs were opposed to physician-assisted suicide than urban females after controlling for the listed possible confounding factors.

Other Findings: During the analyses to test this study's hypotheses, it became apparent that few of the multitude of survey question responses were significantly associated with physician-assisted suicide attitudes. However, there were a few factors that were associated that merit future study. IMG status (positive), grew up in rural locale (positive), Hispanic ethnicity (positive), married (positive), and salary reimbursement (versus production or a combination of salary and production) (negative) were each associated with negative attitudes toward physician-assisted suicide after all the factors included in the regression analysis were statistically controlled. For instance, none of the responding IMGs indicated an intent to assist patient suicides if this practice were legalized, as compared with 16 percent of the U.S. medical school graduates (most responding IMGs were from Canada and Great Britain). In addition, analyses of the part-time clinically active FPs parallel to those for the full-time FPs were performed, although with far fewer FPs. The results were similar

Of those who indicated that physician-assisted suicide should be legal, only 36 percent also indicated that they would perform it if it were legal (20% said no and 44% said they did not know). However, of those who indicated it should not be legal, only .5 percent said they would perform it if it were legal (96% said no and 4% said they did not know). And finally, of those who indicated that they did not know whether it should be legal, only 3 percent indicated they would assist suicides if they were legal (48% said no and 49% said they did not know).

Discussion

The results of this survey analysis indicate a wide variation in attitudes toward physician-assisted suicide among Washington state family physicians. About one-quarter of the family physicians in the overall sample indicated a belief in physician-assisted suicide, 40 percent felt that physicians should be able to perform physician-assisted suicide if it were legalized, and about one-third answered that the WAFP should advocate its legalization. However, there were slightly more negative than positive responses overall to the question of whether physicians should be able to perform physician-assisted suicide. Furthermore, even among those who believed physician-assisted suicide should be legal, many expressed reluctance to include it in their practices.

The first study hypothesis, that older physicians would report more opposition to physician-assisted suicide than their younger colleagues, was not supported by the study findings. When disaggregated by age, responses largely mirrored those of the group as a whole. Interestingly, one exception was a slightly greater propensity for those 61 years old and over to report that they would perform physician-assisted suicide if it were legal, when compared to the other age groups. The older group was not, however, consistently favorable in its beliefs about physician-assisted suicide. The second oldest group, those aged 51-60, appeared more consistent across questions in their opposition to physician-assisted suicide.

The second study hypothesis, that opposition to physician-assisted suicide would vary across a continuum from a high for rural males to urban males to rural females to a low for urban females, proved to be generally supported by the data (and visa versa for support of physician-assisted suicide), although the differentiation between the middle two groups was sometimes reversed. Urban females were significantly more likely to indicate that they favored performing physician-assisted suicide than were their rural male counterparts (29.0% versus 19.5%), while the other hypothesized relationships were in the right directions but not statistically significant. Likewise, attitudes toward whether assisted-suicide should be legal followed the hypothesized pattern, with urban females statistically more in favor than urban males (42.4% versus 31.4%). In this case, all of the other hypothesized continuum differences were significant with the exception that rural female responses were not in the hypothesized order.

Regarding intent to perform assisted suicide if it were legal, urban females were significantly less likely to indicate "no" than their rural male counterparts (49.2% versus 65.0%). While all the hypothesized continuum relationships were in the right order, only the urban female to urban male responses were statistically

significant. And finally, for attitudes concerning the WAFP's position on assisted suicide, all of the hypothesized relationships were in the expected order and statistically significant, with rural males being most in favor of WAFP opposition to assisted suicide and urban females being least supportive of WAFP opposition (44.8% versus 22.6%).

In summary, FP age was generally not associated with assisted suicide attitudes, contrary to our hypothesis. However, there was a fairly consistent pattern of greater opposition to physician-assisted suicide among the rural and male physicians who responded to the survey, with greater support among urban and female FPs. While the study results generally support the hypothesized location/gender continuum relationships, the rural female and urban male responses were sometimes inconsistent with the hypotheses. By and large, both rural-urban location and gender were important factors in FP assisted suicide attitudes.

Substantial ambivalence toward physician-assisted suicide was demonstrated in the percentage of respondents that indicated "don't know" or "neutral," and also in the discrepancy between the belief that physician-assisted suicide should be made legal and the acknowledgement of whether one would perform this practice if legal. This suggests that physician-assisted suicide remains a difficult and controversial issue for many physicians. Female FPs were more likely to indicate "don't know" than were males.

Interestingly, the percentage of physicians in this study who indicated that they have received requests for physician-assisted suicide (11.8%) almost exactly paralleled the 12 percent who did so in an earlier study of Washington state physicians (Back et al, 1996). The percentages of respondents in this study who endorsed and opposed physician-assisted suicide were markedly similar to those found in a study by Novielli and colleagues (2000). This suggests that the dilemma that physicians face in responding to the ethical and medical challenges evoked by physician-assisted suicide cuts across time and place, and the sensitive issues surrounding end-of-life care and physician-assisted suicide will need to be further addressed in medical training programs, as well as in our society at large.

One of the areas that should be explored is the role and interest of other health care professionals in assisting patients with suicide. Asch has described the role of critical care nurses in this practice, but one wonders about rural nurses and other rural and urban health care professionals (Asch, 1996). It might also be of interest to explore the concerns and attitudes toward this issue held by nurse practitioners and physician assistants.

The economic effects of physician-assisted suicide should also be investigated. In an era of rising health care costs, where a large percentage of the costs occur in the last year of life, "terminal" patients choosing to shorten their lives through physician-assisted suicide could conceivably decrease health care expenditures. There is very little in the literature that examines the relationship of high end-of-life costs and attitudes toward physician-assisted suicide. Levinski and colleagues (2001) examined the pattern of expenditures with age for Medicare beneficiaries in the last year of life in two states, stratifying 1996 Medicare data by sex, race, comorbidity, use of hospice care, place and cause of death and type of health services used. They also examined whether there is less aggressive medical care with advancing age, based on the frequency of admissions to a hospital, care in the ICU and use of aggressive interventions. The authors found a pattern of decreasing Medicare expenditures with age, especially for those 85 years or older, throughout the last year of life and regardless of cause and site of death, for both sexes, for black and white beneficiaries, for patients with varying comorbidity levels, and for those receiving hospice versus conventional care.

Limitations

Several limitations should be considered when interpreting the results of this study. First, while the response rate was respectable, it is possible that survey non-respondents may not be like respondents in their attitudes and beliefs. However, there is no reason to conclude that this is true. Second, there was a relatively small number of rural female physicians among both the study population and respondents. Because the number of women providers is growing rapidly, assessing the attitudes of this new cohort of physicians is important. Third, the study is confined to family physicians and general practitioners in Washington state. Attitudes toward physician-assisted suicide may vary dramatically by specialty and across different regions of the country. Fourth, information on physician religious background and beliefs was not available for these analyses. While the association of religion and physician-assisted suicide is certainly expected to be significant, it is likely to be multifaceted (e.g., childhood background, current activity, religious affiliation, and congruence of personal religion with that of practice area population) and would require responses to multiple questions to evaluate. Finally, the survey focused on physician beliefs and attitudes. It is unclear that these opinions would necessarily translate into predictable behaviors. As circumstances change, those physicians who indicated that they were uncertain as to their opinion about this sensitive issue may of necessity have to decide what they would do.

Conclusion

Physicians, ethicists, jurists, and society in general are far from consensus on the broad-spectrum topic of suicide, much less the specific area of physician-assisted suicide. This study provides a careful analysis of opinions of family physicians from a state whose referendums and legislative activity have placed it near the forefront of the controversy. Substantial differences in opinion exist between physicians based on gender and location of practice around this thorny topic. Far more research is needed. Hopefully, as legal challenges and ethical discussions occur, and regardless of personal and ethical point of view, we can reach a level of comfort with the topic. In a broader sense, this study's results emphasize the significant differences in the attitudes of FPs by gender and rural-urban location. These differences play out on many other rural health policy issues.

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Table 1: FP/GP Respondent Demographic and Practice Characteristics, Washington State Full-Time Clinical

Age ($\bar{x}$)	45.7
25-40	30.4
41-50	45.0
51-60	16.5
61 and older	8.1
Sex (%):	
Female	23.4
Male	76.6
Race (%)[†]:	
African American	0.7
American Indian	1.1
Asian	5.2
White	91.4
Other	2.7
Hispanic ethnicity (%)	1.9
Married (%)	89.0
Medical school and/or residency per University of Washington and associated residency network (%)	51.7
Professional hours per week (excluding on-call) ($\bar{x}$)	48.1
Practice type (%):	
Solo	19.7
Single-specialty group	43.2
Multi-specialty group	37.0
Other	0.1
Hospital privileges (%)	93.6
Clinical income from capitation ($\bar{x}$ %)	29.9
Net personal practice income < $91,000 (%)	25.6
Actively recruiting FP (%)	35.9
Currently performing obstetrics (prenatal and/or delivery) (%)	44.7
Practice income salary only (no salary) (%)	36.3
Practice Location (%):	
Rural	28.2
Urban	71.8
Years practicing same town ($\bar{x}$)	11.0
Number of patients (%):	
Too busy	29.8
Just enough	60.2
Not busy enough	8.6
Definitely or probably choose to be FP if had it to do over again (%)	82.4
Number of respondents	≈ 1,074

[†] Respondents were instructed to mark all that apply (thus total exceeds 100%).

Table 2: FP/GP Physician-Assisted Suicide Responses, Washington State Full-Time Clinical (1997)

	Percent	Confidence Interval (95%)*	Number of Responses
Patient requests for physician-assisted suicide during last year†:			867
0	88.1	85.9-90.3	
1-5	11.3	9.1-13.5	
6-10	0.3	0.0-0.7	
11-15	0.2	0.0-0.6	
	100.0‡		
Beliefs about physician-assisted suicide:			973
Perform physician-assisted suicide	24.8	22.1-27.5	
Withhold treatment to reduce suffering	67.0	64.1-69.9	
Every effort to preserve life	4.8	3.4-6.1	
Other	3.4	2.2-4.6	
	100.0		
Belief that physician-assisted suicide should be legal:			985
Yes	38.6	35.5-41.7	
No	43.6	40.5-46.7	
Don't know	17.9	15.6-20.3	
	100.0‡		
Perform if legal:			985
Yes	14.7	12.5-16.9	
No	57.9	54.8-61.0	
Don't know	27.4	26.7-30.1	
	100.0		
Suggested WAFP physician-assisted suicide policy:			967
Pursue legalizing	31.9	29.0-34.8	
Stay neutral	27.9	25.2-30.6	
Oppose legalization	36.5	33.6-39.4	
Other	3.7	2.5-4.9	
	100.0		

* Overall confidence intervals derived from two-tailed distribution.

† Mean requests equals 0.276 with 95% confidence interval of 0.199-0.352 (n = 867).

‡ Does not add to 100 because of rounding.

Table 3: FP/GP Physician-Assisted Suicide Responses by Age, Washington State Full-Time Clinical (1997)

	Preserve Life (%)	Withhold Treatment (%)	Assist Suicide (%)	Other (%)
General belief (overall p = 0.019):				
< 41	3.7	69.0	25.3	2.0
41-50	3.2	67.7	24.8	4.4
51-60	8.8	62.0	25.1	4.1
61 and older	10.4	65.7	22.4	1.5

	Yes (%)	No (%)	Don't Know (%)	Number of Responses
Should be legal (overall p = 0.467):				
< 41	40.1	40.7	19.2	297
41-50	37.8	44.6	17.6	442
51-60	38.6	45.6	15.8	171
61 and older	38.9	44.4	16.7	72

	Yes (%)	No (%)	Don't Know (%)	Number of Responses
Perform if legal (overall p = 0.281):				
< 41	15.5	57.6	26.9	297
41-50	13.2	58.7	28.1	441
51-60	14.5	59.9	25.6	172
61 and older	22.2	50.0	27.8	72

	Pursue Legalization (%)	Stay Neutral (%)	Oppose Legalization (%)	Other (%)
WAFP policy (overall p = 0.149):				
< 41	32.5	29.5	34.2	3.8
41-50	32.3	25.5	37.4	4.9
51-60	29.8	27.4	40.5	2.4
61 and older	32.9	37.0	30.1	0.0

Table 4: FP/GP Beliefs on Physician-Assisted Suicide, Washington State Full-Time Clinical (1997)

	Urban Females (%)	Rural Females (%)	Urban Males (%)	Rural Males (%)
Perform physician-assisted suicide	29.0	26.5	25.1	19.5
Withhold treatment to reduce suffering	63.4	61.2	67.3	71.0
Every effort to preserve life	1.6	8.2	5.2	5.9
Other	6.0	4.1	2.3	3.6
Total	100.0	100.0	100.0	100.0
Number of responses	183	49	517	221

Statistical significance per chi-square:

Overall: p = .031

Key: A = urban females, B = rural females, C = urban males, and D = rural males

A vs. B: p = .061
B vs. C: p = .336 (not consistent with hypothesized direction)
C vs. D: p = .158

B vs. D: p = .299 (not consistent with hypothesized direction)
A vs. C: p = .007
A vs. D: p = .008

Table 5: FP/GP Beliefs that Physician-Assisted Suicide Should Be Legal, Washington State Full-Time Clinical (1997)

	Urban Females (%)	Rural Females (%)	Urban Males (%)	Rural Males (%)
Yes	42.4	36.0	40.6	31.4
No	31.0	32.0	44.8	53.8
Don't know	26.6	32.0	14.7	14.8
Total	100.0	100.0	100.0	100.0
Number of responses	184	50	525	223

Statistical significance per chi-square:

Overall: $p < .001$

Key: A = urban females, B = rural females, C = urban males, and D = rural males

A vs. B: $p = .333$
B vs. C: $p = .003$ (not consistent with hypothesized direction)
C vs. D: $p = .023$

B vs. D: $p = .002$
A vs. C: $p < .001$
A vs. D: $p < .001$

Table 6: FP/GP Attitudes Toward Performing Physician-Assisted Suicide If It Were Legal, Washington State Full-Time Clinical (1997)

	Urban Females (%)	Rural Females (%)	Urban Males (%)	Rural Males (%)
Yes	17.5	16.0	14.8	12.1
No	49.2	50.0	58.6	65.0
Don't know	33.3	34.0	26.6	22.9
Total	100.0	100.0	100.0	100.0
Number of cases	183	50	526	223

Statistical significance per chi-square:

Overall: p = .032

Key: A = urban females, B = rural females, C = urban males, and D = rural males

A vs. B: p = .495
B vs. C: p = .233
C vs. D: p = .125

B vs. D: p = .068
A vs. C: p = .043
A vs. D: p = .003

Table 7: FP/GP Suggested WAFP Physician-Assisted Suicide Policy, Washington State Full-Time Clinical (1997)

	Urban Females (%)	Rural Females (%)	Urban Males (%)	Rural Males (%)
Pursue legalizing	36.7	40.4	32.6	24.0
Stay neutral	35.0	19.1	27.2	25.8
Oppose legalization	22.6	29.8	38.4	44.8
Other	5.6	10.6	1.7	5.4
Total	100.0	100.0	100.0	100.0
Number of respondents	177	47	518	221

Statistical significance per chi-square:

Overall: $p < .001$

Key: A = urban females, B = rural females, C = urban males, and D = rural males

A vs. B: $p = .077$ (not consistent with hypothesized direction)
B vs. C: $p = .001$
C vs. D: $p = .003$

B vs. D: $p = .020$
A vs. C: $p < .001$
A vs. D: $p < .001$

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