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Attitudes Regarding Physician-assisted Suicide Among Minnesota Family Medicine Physicians

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ATTITUDES REGARDING PHYSICIAN-ASSISTED SUICIDE AMONG MINNESOTA FAMILY MEDICINE PHYSICIANS

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ABSTRACT

An affinity for bioethics lead researchers to investigate the attitudes of physicians toward physician-assisted suicide amidst growing conversation regarding patient liberties. Physician-assisted suicide (PAS) refers to the prescription of a lethal dose of a drug to prematurely end a patient's life (Gather & Vollmann, 2013). The purpose of this study was to understand the attitudes of physicians toward PAS and thus, predict how their approach to end-of-life issues will change under its legalization. A case-based survey was created to determine the relationship between physician age and support for access to PAS, patient diagnosis and support for access to PAS, physician support for access to PAS and willingness to prescribe PAS, and patient diagnosis and physician willingness to prescribe PAS. The survey was distributed by email to members of the Minnesota Academy of Family Physicians and a total of 39 completed surveys were obtained that met inclusion criteria for statistical analysis. Statistical analysis was performed using Real Statistics Software on Microsoft Excel and included chi-squared and Fisher exact tests. A significant relationship was found between physician support for access to PAS and willingness to prescribe the lethal dose, indicating that a significant number of physicians believed patients should have access to PAS, but were not willing to prescribe the lethal dose. The explanation and implications of these results are discussed in Chapter 5.

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Chapter 1: Introduction

Introduction

In the United States, physician-assisted suicide continues to gain familiarity and provoke debate among physicians and the general public. The recent surge of discussion followed the case of Brittany Maynard, a young woman with an inoperable brain tumor, who relocated to Oregon to receive a lethal prescription to prematurely end her life (Death with Dignity, n.d.a.). Her story left a wake of ethical turmoil, particularly within family medicine, oncology, and palliative care settings. By understanding the attitudes of physicians toward physician-assisted suicide, one can better anticipate how their approach to end-of-life issues will change under its legalization.

Background

In order to understand the history of physician-assisted suicide legalization, one must first understand the topic being considered. Physician-assisted suicide (PAS) refers to the prescription of a lethal dose of a drug to prematurely end a patient's life (Gather & Vollmann, 2013). In comparison, active euthanasia refers to the direct act of a physician, in which he or she performs a lethal injection that causes death of a patient (Gather & Vollmann, 2013).

After multiple failed attempts to legalize PAS in Washington and California in 1991 and 1992, Oregon introduced the Oregon Measure 16 on the ballot in the 1994 general election (Death with Dignity, n.d.c.). The question posed to voters read as follows: "Shall the law allow terminally ill adult patients voluntary informed choice to obtain a physician's prescription for medication to end life" (Oregon "death with dignity," measure 16, n.d.). This measure was controversial at the time, but did pass by the narrow margin of 51.31%

to 48.69% (Oregon "death with dignity," measure 16, n.d.). The reason Measure 16 gained approval in Oregon was because Oregon chose to only legalize PAS and not euthanasia, making Oregon's measure unique from those proposed in Washington and California (Death with Dignity, n.d.c.). In Oregon, legalization of physician-assisted suicide was heavily challenged, which both delayed its implementation and lead to the introduction of Measure 51 in 1997. Measure 51 attempted to repeal Measure 16 and overturn the 1994 decision (Death with Dignity, n.d.c.). Measure 51 failed by a margin of 59.91% to 40.09% (Repeal of "death with dignity," measure 51, n.d.). Compared to its introduction in 1994, public support for PAS had grown stronger; and on October 27th, 1997, Oregon's Death with Dignity Act took effect (Death with dignity act, n.d.c.). This act states the following:

> An adult who is capable, is a resident of Oregon, and has been determined by the attending physician and consulting physician to be suffering from a terminal disease, and who has voluntarily expressed his or her wish to die, may make a written request for medication for the purpose of ending his or her life in a humane and dignified manner (Oregon Health Authority, n.d.b.).

Moving forward, Oregon has become the template for subsequent states to legalize similar Death with Dignity laws.

In 2008, Washington governor, Booth Gardner, led proponents of PAS to collect enough signatures for Measure I-100 to be on Washington's ballot. In response, Washington voters approved this measure and it went into effect in 2009 (Death with Dignity, n.d.e.). The trend traveled to the East Coast, where Vermont became the first state to legalize PAS through the state legislature in 2013 (Death with Dignity, n.d.b.). The Vermont ruling represents an important development in the legal history of PAS, as this

marked the first Death with Dignity law to be passed without a popular vote. In October 2015, California's ABX2-15 was signed, which made it the second state to legalize PAS through the legislative process (Death with Dignity, n.d.a.). As of 2018, PAS is legal in Oregon, Washington, Vermont, Montana, California, and Colorado. Currently, it is being considered in twenty states across the United States. (Death with Dignity, n.d.d.).

Problem Statement

The prospect of PAS is of consideration for individuals with terminal illness, as it is an expanding practice in the United States. Presently, twenty states including Minnesota, Wisconsin, Iowa, and Michigan are considering Death with Dignity laws during the current legislative session (Death with Dignity, n.d.d.). As legislative action and public support for PAS increases, physicians in the Midwest can reasonably expect to encounter questions and requests for PAS during their career. Physician attitudes regarding PAS are important, because they may influence how the patient perceives end-of-life issues. The problem outlined in this research is that minimal data exists on the attitudes of physicians in the Midwest, specifically Minnesota, toward PAS.

Purpose

End-of-life situations typically include diagnoses of cancer, AIDS, amyotrophic lateral sclerosis (ALS), and more recently, neurological illnesses such as, Alzheimer's disease (Lachman, 2010). Considering the frequency of these diagnoses in family medicine, one can predict patients will seek information on PAS. The purpose of this study is to identify whether family medicine physicians in Minnesota would participate in PAS should it become legal.

Significance of the Problem

Mention of PAS often heads an emotionally charged discussion among those involved, which is in part due to the ethical debate surrounding access to PAS. The clinical significance of PAS is growing in the United States, as the Midwest seeks to adopt this form of treatment. PAS has many implications for those in health care. Its legalization forces physicians to reevaluate their role as medical professionals in terms of scope of practice and patient relationship.

The ethical discussion is shaped by the following views, as addressed by Timothy E. Quill and Margaret P. Battin, Ph.D. of John Hopkins University (2004). Proponents believe that PAS respects the autonomy of the patient, giving him or her the choice to hasten death and avoid impending suffering related to his or her terminal illness (Quill & Battin, 2004). They argue that even expert palliative care can fall short of adequately alleviating symptoms, such as breathlessness, nausea, weakness and helplessness (Quill & Battin, 2004). Likewise, proponents believe that because patients have different perspectives on death, patients should be able to choose when and how they die (Quill & Battin, 2004). In other words, the idea of good death varies among individuals, whether it be a drawn out process of reflection and relational healing or a short and "dignified decision" (Quill & Battin, 2004). Proponents also argue that PAS may prevent patients from attempting other suicide methods, where third parties may be heavily burdened as a result (Gather & Vollmar, 2013). Lastly, PAS supporters believe in an unwavering commitment to the patient; and argue that physicians often abandon or distance themselves when treatment options run out (Quill & Battin, 2004). According to Marcia Angell, the editor in chief of the New England Journal of Medicine, as cited by Quill & Battin (2014), the availability of PAS would improve the physician's obligation to the patient and lead to less frequent

abandonment in the field of geriatric, palliative, and family medicine (Quill & Battin, 2004).

Opponents of PAS believe that PAS is killing and thus, its use is inherently wrong in all circumstances (Quill & Battin, 2004). Opponents argue that PAS undermines the integrity of the physician by violating the Hippocratic Oath, which is the medical professionals' promise to "do no harm" (Quill & Battin, 2004). Opponents are also fearful that legalizing PAS will lead to widespread abuse in the medical profession, such as lethal prescriptions for depression and individuals with disabilities, as well as misdiagnoses (Quill & Battin, 2004).

Finally, the disparity in healthcare and the treatment options available for those of various socioeconomic standings contributes to the discussion of PAS. As previously mentioned, many believe PAS should be implemented to preserve the dignity and independence of the patient (Quill & Battin, 2004). Yet, opponents argue that PAS is not indefinitely protecting the patient's rights, particularly for those of lower socioeconomic standings (Quill & Battin, 2004). While chemotherapy and other cancer treatments are an option for privileged Americans, minority and low income populations may be unable to obtain such care. In turn, these populations may find themselves pressured, either by themselves or healthcare plans, into seeking the most cost effective and convenient palliative care, such as PAS. In other words, the right to choose death may actually infringe on the right of others to choose life (Quill & Battin, 2004).

Furthermore, physicians must be aware of the factors that lead individuals to consider and pursue PAS. According to Smith, Harvath, Goy, and Ganzini (2015), the leading domains for pursuit of PAS include autonomy, spirituality/meaning, and hopelessness or

negative expectations of the future. Note that physical symptoms actually held less weight in one's consideration of PAS. This study by Smith et al. (2015), compared terminally ill patients in Oregon pursuing PAS to those uninterested in PAS. Based on statistical analysis, the strongest predictors for pursuit of PAS were low spirituality and hopelessness; and overall, PAS pursuers were more likely to have depression and dismissive attachment styles as well (Smith et al., 2015).

As the medicinal world continues to reap new forms of treatment and care, including PAS, its physicians deserve the opportunity to voice their thoughts on such changes. In the event of further legalization, preparedness to handle such situations will benefit the patient-physician relationship.

Definitions

The term suicide fosters many preconceived attitudes and opinions. Standing alone, "suicide is defined as death caused by self-directed injurious behavior with an intent to die as a result of the behavior "(CDC, 2016, p. 14). Physician-assisted suicide (PAS) describes when a physician prescribes a lethal drug for a patient, gives the patient the drug, and/or is present when the patient takes the drug (Gather & Vollmann, 2013). This study has chosen to use the term physician-assisted suicide, rather than physician-assisted death because it is more widely used; however, physician-assisted suicide and physician-assisted death (PAD) are synonymous. This study will remain neutral on this topic and use of PAS does not imply the personal agenda of the researchers. The term euthanasia is not synonymous with PAS or PAD. As previously mentioned, people may confuse PAS with euthanasia. Euthanasia originates from the Greek (eu-thanatos) meaning "good death." In medicine, this term refers to "accelerating patient death to avoid undue suffering from a disease"

(Vilela & Caramelli, 2009, p. 263). The most common variation used today is known as active euthanasia, which refers to "the direct act of a physician, in which he or she performs a lethal injection that achieves immediate or almost immediate death of a patient "(Vilela & Caramelli, 2009, p. 264). Euthanasia is currently not legal in the United States, and it will not be included in this study's data collection.

Limitations

One major limitation encountered during this study involved the sample population. While PAS concerns palliative care, oncology, and family medicine physicians, researchers faced limited access to those in palliative care and oncology. In turn, the results of this study do not reflect all areas of medicine that face end-of-life decisions. A limitation is dishonest answers among survey respondents. Despite it being anonymous, individuals completing the survey might not have answered one or both questions truthfully. Similarly, responses may have been influenced by the physician's emotional reaction to the topic, possibly due personal experience in handling death among patients and loved ones. For example, physicians who have experienced peaceful death of loved ones may be less supportive of PAS, while those who have not experienced peaceful death of loved ones may be more supportive of PAS (Malpas, Wilson, Rae, & Johnson, 2014).

Research Questions

Researchers hope to better understand the attitudes of physicians toward PAS by asking the following questions:

1. Does physician support for access to PAS differ based upon physician age?
2. Does physician support for access to PAS differ based upon patient diagnosis?

3. Is there a difference between physician support for access to PAS and physician willingness to prescribe a lethal dose?

4. Does physician willingness to prescribe a lethal dose differ based upon patient diagnosis?

Conclusion

The discussion surrounding physician-assisted suicide in the United States will likely remain at the forefront of legal issues in medicine throughout the careers of new physicians. PAS has elicited scrutiny, but also support. Its growing implementation will impact the patient-physician relationship, and therefore, it is imperative that it be addressed and thoroughly considered by healthcare professionals. Chapter 2 will discuss the current studies that have been performed to identify attitudes toward PAS among healthcare professionals and family members of patients pursuing PAS. Chapter 2 will also address how PAS effects the participating physicians and how attitudes toward PAS have changed.

Chapter 2: Literature Review

Introduction

The use of physician-assisted suicide (PAS) has warranted a strong debate across the United States. While the conversation thoroughly considers how PAS impacts patients, its acceptance among physicians and the other individuals involved is seldom discussed. This chapter will highlight previous research on the effects of PAS on participating physicians, as well as the existing attitudes of physicians and family members of terminally ill patients. This chapter will also address how attitudes toward PAS have changed, and the current status of its acceptance in the Midwest.

Effects of PAS on Participating Physicians

In 2006, the *Issues in Law and Medicine* published a literature review, "The Emotional and Psychological Effects of Physician-Assisted Suicide on Participating Physicians" (Stevens, 2006). Author Kenneth R. Stevens, Jr., M.D. noted,

> When new treatments or procedures in medicine are developed, they are scrutinized to determine if there are adverse or harmful effects associated with them. In the same way, physician-assisted suicide and euthanasia deserve to be evaluated to determine if they have adverse or harmful effects (2006, p.188).

Dr. Steven's review included two studies addressing the practice and response to PAS by physicians, at a time when it was only legal in Oregon. In 1998, Dr. Ezekiel J. Emanuel, an American oncologist and bioethicist, conducted a national survey of physicians interacting with end-of-life situations (Stevens, 2006). Physicians were asked to answer the questionnaire based on the most recent request for PAS that they had received (Stevens, 2006). The sample included 81 physician participants, 37 of whom fulfilled the patient's

request and wrote a lethal prescription (Stevens, 2006). The study found that 18% of physicians reported being uncomfortable with writing a lethal prescription; and 6% reported being very uncomfortable with writing a lethal prescription (Stevens, 2006). Also in 1998, Dr. Emanuel conducted telephone interviews with randomly selected United States oncologists who had admitted to participating in PAS (Stevens, 2006). Based on the telephone interviews, 53% of physicians believed they helped patients by prescribing PAS, 24% lamented their decision to perform PAS, and 16% reported that the emotional morbidity they experienced as a result of performing PAS negatively affected their medical career (Stevens, 2006). Since these studies were performed prior to PAS legalization except in Oregon, the regret of physicians may have been influenced by the fact that they committed an illegal act. Regardless, these studies provide a platform for further research on not only the attitudes of physicians toward PAS, but also the impact participation has on their medical practice.

As of 2006, according to Oregon Department of Human Services, Office of Disease Prevention and Epidemiology, 326 lethal prescriptions had been written, 208 which resulted in reported deaths since its legalization (Stevens, 2006). The accuracy of these statistics is questionable due to deficiency in the reporting of PAS in Oregon. The reason for the deficiency is that participating physicians are not required to identify themselves in a registry. In turn, minimal data addresses the effects of PAS on participating physicians (Stevens, 2006).

Most recently, in 2005, the *Omega Journal of Death and Dying* published a literature review, which collected data from 13 studies on attitudes of PAS across the U.S. The 13 studies had been conducted between 1991 and 2000. The study found that support for PAS

ranged from 31-57% in 10 of the 13 studies and one third of all physicians surveyed reported that they would be willing to participate in PAS (Dickinson, Clark, Winslow, & Marples, 2005). In fact, the following two specialties were consistently the highest supporters of legalization of PAS: emergency medicine with 69% support for legalization and psychiatry with 63% support for legalization (Dickinson et al., 2005). Further literature on the attitudes of emergency medicine physicians will be presented in this chapter.

Attitudes of Physicians in Oncology

Research indicates that a majority of patients who pursue PAS are dying from a cancer diagnosis, making the perspective of oncologists valuable (Emanuel, Onwuteaka-Philipsen, Urwin & Cohen, 2016). In 1996, a study from the *Lancet Journal* compared the opinions of oncologists, the general public, and oncology patients regarding PAS and euthanasia. The goal of the study was to compare how each group responded to different end-of-life situations with PAS as an option (Emanuel, Fairclough, Daniels, & Clarridge, 1996). The cohort of oncology patients included 155 individuals from the Boston, Massachusetts area. The cohort of oncologists included 355 participants from the American Society of Clinical Oncology; and the general public cohort was selected by random phone numbers from eastern Massachusetts (Emanuel et al., 1996).

Participants were asked whether they agreed with the use of PAS or euthanasia as it related to four different vignettes (Emanuel et al., 1996). The first vignette described a patient with metastatic cancer experiencing unremitting pain. The second vignette described a patient with terminal cancer who is competent, not depressed, and in no pain, but is no longer able to perform self-cares, and requests a life ending injection. The third

vignette described a patient with terminal cancer who is competent and not depressed, but is concerned about the burden of her disease on her family, and asks for a life ending injection. Finally, the fourth vignette described a patient with terminal cancer who is competent, not depressed, and in no pain, requests a life ending injecting because he no longer finds purpose in life (Emanuel et al., 1996). Note that Emanuel et al. (1996) did not use the terms PAS or euthanasia because of their emotional nature.

The study found that 45.5% of oncologists supported the use of PAS in the case of unremitting pain, 35.5% for functional debility, 22.9% for burden on the family, and 18.1% for cases where the patient views life as meaningless (Emanuel et al., 1996). Euthanasia had much lower support among oncologists with 22.7% supporting its use for the case of unremitting pain, 15% for functional debility, 6% for burden on the family, and 5.7% for viewing life as meaningless (Emanuel et al., 1996). In comparison, of the general public cohort, 66.5% supported PAS for a patient in unremitting pain, 48.1% for functional debility, 36.2% for burden on the family, and 32.8% for viewing life as meaningless (Emanuel et al., 1996). In the public, support for euthanasia was nearly the same as PAS with 65.6% supporting the use of euthanasia for a patient in unremitting pain, 49.2% for functional debility, 36.2% for burden on the family, and 29.3% for viewing life as meaningless (Emanuel et al., 1996). Among oncology patients, roughly 66% supported PAS and euthanasia for circumstances of unremitting pain; and the majority opposed both PAS and euthanasia for burden on the family and viewing life as meaningless (Emanuel et al., 1996). Also noteworthy was that 25% of oncology patients reported considering PAS and/or euthanasia and 12% reported discussing these options with their physicians (Emanuel et al., 1996). Overall, Emanuel et al. (1996) concluded that support for

euthanasia was considerably lower than support for PAS among oncologists, support for PAS and euthanasia was about equal in the general public, and oncology patients were most likely to support PAS and euthanasia in the case of unremitting pain.

In 1998, the American Society of Clinical Oncology was surveyed again, this time with a focus on pediatric oncologists (Hilden et al., 2001). The 228 pediatric oncologists who participated were given a case about a 63-year old man suffering from metastatic prostate cancer with uncontrolled pain (Hilden et al., 2001). Participants were asked if PAS and euthanasia were acceptable in this situation. The results were 30.2% in favor of PAS and 13.6% in favor of euthanasia (Hilden et al., 2001). Reasons for this opposition may include that pediatric oncologists are not familiar with caring for the adult population, and therefore, found it difficult to imagine themselves in such a position.

Furthermore, the *Annals of Internal Medicine* published a study in 2000 that gathered the opinions regarding PAS and euthanasia amongst oncology physicians and oncology specialists. The goal was to determine how the practices of PAS and euthanasia "relate to optimal end-of-life care" (Emanuel et al., 2000, p. 527). A sample population included all 8715 members of the American Society of Clinical Oncology, as well as a selection of 1273 specialists from the following fields: medical, surgical, radiation, and pediatric oncology (Emanuel et al., 2000). The survey addressed requests for PAS and euthanasia, personal willingness to provide PAS and euthanasia, support for the use of PAS and euthanasia, and whether or not the physician had performed PAS/euthanasia for a patient in excruciating pain (Emanuel et al., 2000). The survey also collected demographic information about the survey participants.

Responses of oncology physicians and oncology specialists were combined for statistical analysis due to insignificant differences. Results concluded that 22.5% supported PAS, while only 6.5% supported euthanasia (Emanuel et al., 2000). Yet, only 15.5% of physicians said they would be personally willing to prescribe PAS, and only 2% said they would be willing to personally provide euthanasia (Emanuel et al., 2000). Statistical analysis demonstrated that the following variables were associated with lower support for PAS and euthanasia:

> Reluctance to increase the intravenous morphine dose for a patient with metastatic breast cancer who was experiencing pain and requested relief, reporting that they had sufficient time to talk to dying patients about end-of-life care issues, viewing themselves as religious, and being Catholic (Emanuel et al., 2000).

These results demonstrated that the majority of oncologists were not in favor using of PAS in 2000.

Attitudes of Physicians in South Carolina and Washington

Just following its legalization in 1994 in Washington, the *New England Journal of Medicine (NEJM)* examined the opinions of physicians who lived in WA, toward PAS and euthanasia (Cohen, Fihn, Boyko, Jonsen & Wood, 1994). Cohen et al. surveyed 938 physicians from various specialties in Washington state and found that 53% of participants supported PAS and 54% supported euthanasia in certain situations (1994). Furthermore, the study noted that support for PAS and euthanasia was highest among psychiatrists and lowest among oncologists and hematologists (Cohen et al., 1994). This study indicated that support for PAS is indeed related to the specialty in which the patient is seeking care.

In 1997, the NEJM study above was replicated in South Carolina (Dickinson, Lancaster, Sumner & Cohen, 1997). This replication was an attempt to identify the views of physicians on PAS on the East Coast, as the use of PAS was generally associated with the West Coast. Based on a sample population of 1,084 physicians practicing in South Carolina, 48% found PAS acceptable. This acceptance rate was slightly lower than the 53% of physicians practicing in Washington (Dickinson et al., 1997). Similar to Washington, the demographic analysis demonstrated that psychiatrists were the most supportive of PAS. Internal medicine physicians in South Carolina were the least likely to support the use of PAS (Dickinson et al., 1997).

Attitudes of Physicians in Oregon

Between 1994, when Oregon passed the Death with Dignity Act, and 1997, when it was implemented, the *Journal of Academic Emergency Medicine* published a study on the opinions of physicians working in emergency medicine in Oregon toward PAS. Essentially, this study was a response to the new legalization and implementation. The study surveyed 248 Emergency Medicine physicians and found that 69% believed PAS should be legal (Schmidt et al., 1996). Additionally, they found that holding a religious affiliation was the single factor that significantly changed support for PAS (Schmidt et al., 1996).

More recently, in 2004, the *Journal of Palliative Medicine* published a qualitative study on the response to patient requests for PAS of 35 physicians in Oregon (Stevens, 2006). Interviews revealed that participating physicians experienced emotional discomfort in their decision to prescribe PAS, even when they felt it was appropriate (Stevens, 2006). The authors noted multiple responses similar to the following, “I wonder if I have the necessary emotional peace to continue to participate,” and, “I find I can’t turn off my

feelings at work as easily…because it does go against what I wanted to do as a physician" (Stevens, 2006, p. 192). Similar to the data gathered at the national level, the adverse effects of PAS on one's medical practice are noteworthy. Ultimately, a physician's choice to participate in PAS must be thoroughly explained to (1) ensure that it is based on sound rationale, and (2) ensure that all attempts to prevent adverse effects have been made (Stevens, 2006).

Stability of Attitudes among Physicians

In 2015, Minnesota legislators withdrew the bill to legalize physician-assisted suicide from the agenda, as they were fearful it lacked the support in the Republican controlled Minnesota House of Representatives. In order for PAS to pass in the future, the attitudes of Representatives need to shifted toward support. Research on the stability of the attitudes toward PAS can aid in predicting the outcomes in future legislative sessions (Wolfe et al., 1999).

Unfortunately, the data on stability of attitudes is sparse, and this is likely due to difficulty in return rate of follow-up surveys. However, the *Journal of Clinical Oncology* published a study to identify how the attitudes toward PAS among physicians and oncology patients had changed between 1996 and 1999 in Oregon. In 1996 and 1999, participants were asked to read four vignettes and determine whether PAS was ethical in each (Wolfe et al., 1999). Each vignette described an adult with terminal cancer in one of the following circumstances: unremitting pain, debilitated and unable to provide self-care, concerned with being a burden to his or her family, or finding life meaningless and purposeless (Wolfe et al., 1999). Compared to the 1996 study, the 1999 study found that one third of physicians had changed from acceptance to opposition, while attitudes of oncology patients

remained stable (Wolfe et al., 1999). More specifically, the vignette with the greatest instability among physicians was a change toward opposing PAS for patients with unremitting pain, which authors speculate demonstrates a growing belief in aggressive palliative care (Wolfe et al., 1999). This study illustrates a rising opposition of PAS among physicians that existed specifically between 1996 and 1999. According to Wolf et al., "these findings suggest the need for rigorous guidelines requiring patients to be evaluated over time before granting a request for PAS or euthanasia" (1999, p. 1279).

The evolving attitudes toward PAS has been most recently assessed by the "Medscape Ethics 2014 Report" (Kane). The Medscape polls encompassed roughly 17,000 U.S. physicians and 4,000 European physicians. Physicians could respond Yes, No, or It Depends to the following question: "Should physician-assisted suicide be allowed?" (Kane, 2014). Polls revealed an 8% increase in Yes responses (46-54%); 10% decrease in No responses (41-31%); and a 1% increase in It Depends responses (14%-15%) between 2010 and 2014 (Kane, 2014). This four-year comparison indicates a growing acceptance toward PAS amongst physicians, which is not consistent with the trend between 1996 and 1999.

Similarly, Medscape asked, "Would you give life-sustaining therapy if you considered it futile?" With this question, 46% of voters responded It Depends, while 35% responded No. Many voters believed life-sustaining therapy can bring closure to family members, and others believed it leads to exponential healthcare costs (Kane, 2014). More specifically, 42% of Cardiologists, 39% of Oncologists, and 46% of Emergency Medicine doctors answered "It Depends;" and 40% of Cardiologists, 47% of Oncologists, and 27% of

EM doctors responded "No" (Kane, 2014). The results of this survey indicates that a physician's choice to provide life-sustaining therapy is highly dependent on the situation.

Attitudes of Healthcare Professionals other than Physicians

The views of other medical professionals reveal the impact of physician-assisted suicide as well. This segment will address those of nurses, specifically in hospice centers, where the patient population is terminally ill. Firstly, 90% of individuals who receive PAS are actually enrolled in hospice care programs (Campbell & Black, 2014). In 2014, the *Journal of Pain and Symptom Management* published an original study on the perspectives of PAS in hospices located in Washington, where PAS has been legal since 2009. Despite differences in hospice centers locally and nationally, authors define hospice philosophy to include the following at a minimum:

1. A view of dying as a natural process
2. A moral precept to neither prolong nor hasten dying
3. Compassionate provision of methods to relieve pain (the principle of beneficence)
4. Patient (and family) participation in decision making
5. Fidelity to patient welfare that includes non-abandonment of both patients and families (the principles of beneficence and non-maleficence) (Campbell & Black, 2014, p. 140).

While the National Hospice and Palliative Care Organization does not support legalization of PAS, the Hospice and Palliative Nurses Association has stated that, "nurses are to be advocates for humane and ethical care for the alleviation of suffering at the end of life and ensuring that patients who request aid in dying are not abandoned" (Campbell &

Black, 2014, p. 140). This study collected documents from 30 hospice programs in WA, which were used to answer policy questions on PAS. Out of these 30 hospice programs, 20 believed that PAS did not have a place in hospice care (Campbell & Black, 2014). Note that while hospice programs may not support PAS, WA hospice centers cannot prohibit its use because PAS is legal (Campbell & Black, 2014).

Hospices in WA must also decide whether to allow staff presence during ingestion of the lethal drug. Twenty-six of the 30 hospice programs do not permit staff presence on ingestion of PAS (Campbell & Black, 2014). The article reads, "Some policies indicate that witnessing a patient's action of medication ingestion is outside the scope of hospice practice. Others maintain that it is the equivalent of 'condoning the practice' and thus compromises hospice integrity" (Campbell & Black, 2014, p. 146). For those who do permit presence, the policy stresses the value of non-abandonment (Campbell & Black, 2014). Ultimately, hospice programs have been forced to consider a new breadth of end-of-life situations with the legalization of PAS.

Previously in 2001, a qualitative study was performed on the experiences of oncology nurses caring for terminally ill patients requesting PAS (Volker). The study analyzed 48 stories from oncology RNs in Oregon. The stories collectively included requests for PAS from the patient and/or family members when patients had reported anticipating fear of deterioration and unremitting pain (Volker, 2001). The study concluded by addressing the need for further education for nurses on how to handle these situations with respect to one's own values and the patient's autonomy (Volker, 2001).

Attitudes of Family Members affected by PAS

In addition to physicians and other healthcare organizations, such as hospice, the impact of PAS extends to the family members of terminally ill patients as well. These attitudes are rooted in a variety of circumstantial factors, eliciting both support and opposition. In 2006, the *Journal of Pain and Symptom Management* published an original study on the perspectives of PAS among family members of oncology patients in Oregon (Ganzini, Beer, & Brouns, 2006). The study argued that opinions of family members are significant, because they may positively or negatively influence the patient's choice to request or oppose PAS (Ganzini et al., 2006). For example, family members may support PAS in order to relieve the financial and emotional strain of caring for the patient (Ganzini et al., 2006). In comparison, family members may oppose PAS, fearful of experiencing guilt and regret (Ganzini et al., 2006). Ganzini et al. believed that improved communication regarding PAS among family members and patients may lower the mental morbidity experienced by the family members should the patient choose PAS (Ganzini et al., 2006).

Participants included 161 oncology patients from the Portland Veterans Medical Center and Oregon Health and Sciences University, who had been diagnosed for at least two months and had been given a 50% prognosis of dying in the next 2 years (Ganzini et al., 2006). Oncology patients were also asked to recruit the family member that assisted them the most, either a spouse, sibling, parent, or child of at least 18 years old (Ganzini et al., 2006). Family members completed a survey which asked (1) the amount of care they performed for the patient; (2) the degree to which the family member feels burdened by the patient; (3) the amount of social support the family member receives; and (4) the importance of religion to the family member (Ganzini et al., 2006). He or she was also

asked to (1) rate the patient's suffering and pain; (2) rate the patient's desire to die; (3) rate the likelihood the patient would request PAS; and (4) indicate his or her own position on PAS (Ganzini et al., 2006).

The study found that 51% of family members supported legalization of PAS, 19% were undecided, and 30% opposed PAS legalization (Ganzini et al., 2006). Yet, family members were inaccurate in predicting their loved one's interest in receiving a lethal prescription at the time of the survey (Ganzini et al., 2006). Finally, this study found that support for PAS among family members was correlated with decreased religiousness and increased concern for their own health needs (Ganzini et al., 2006). Results of this study continue to support the idea that religiousness has an impact on one's decision to support PAS, among both family members or physicians. This correlation is somewhat limited, because various denominations are not clearly defined.

Attitudes of Physicians in the Midwest

As previously mentioned, studies regarding attitudes toward PAS are often either national or focused on states where PAS is legal. Inevitably, this leaves a gap in the research. PAS has maintained a presence in medical ethics debates and upcoming elections in states such as, Michigan, Minnesota, and Wisconsin. In fact, the well-known euthanasia activist, Dr. Jack Kevorkian was a Midwest native. His extreme protest for people's right to die may have had an impact on how Midwesterners view PAS, thus highlighting the need to explore support for PAS in the Midwest. In 1996, a study was conducted involving Michigan physicians' attitudes on PAS. The study raised the following question with regard to its legalization, "are the gains of the practice worth the risks" (Bachman et al., 1996, p. 303)?

To begin, the study mentioned that, "public support in the United States for legalizing PAS seems to be increasing; our findings with respect to Michigan are consistent with that trend" (Bachman et al., 1996, p. 308). The medical specialties who were surveyed included family medicine, internal medicine, surgery, anesthesiology, and other. In Bachman et al. (1996), Michigan physicians were surveyed to see whether PAS should be completely legalized or banned by legislature, and whether they were in favor of participating in PAS, if it was to become legalized. The distributed questionnaires stated background information on both supportive and oppositional arguments for PAS (Bachmann et al., 1996). Participants were asked whether they believed PAS should be definitely legalized, definitely banned, probably legalized, or probably banned. Responses indicated that 29% of physicians in Michigan believed legislature should definitely ban PAS, and 8% believed legislature should probably ban PAS (Bachman et al., 1996). When asked if they would participate in PAS should it become legal, 52% of physicians in Michigan responded that they would not participate in any form of PAS, while 13% responded that they might be willing to participate in PAS, and 22% responded that they might be willing to participate with either PAS and/or euthanasia (Bachman et al., 1996, p. 304).

Bachman et al. (1996) did not demonstrate notable consistency of attitudes among specialties. Interestingly, the study stated that, "doctors who frequently treated terminally ill patients were less likely to support legalization of the practice, but not less likely to be willing to participate in PAS, if it became legal" (Bachman et al., 1996, p. 308). Similarly, physicians with the least experience and fewest encounters with terminally ill patients were less likely to support the legalization of PAS (Bachman et al., 1996).

As previously mentioned, Bachman et al. (1996) found that out of 998 physicians in Michigan, more than half would not participate in PAS should if become legal. Bachman et al. (1996) also asked that if the physician was against PAS, would he or she refer the patient to a participating physician. The study reads,

> Among the 52% who would not participate themselves, many indicated that they would be willing to refer patients to practitioners who would. This parallels attitudes toward abortion in some respects; many physicians who oppose medical action on moral grounds are nevertheless willing to make referrals out of respect for a patient's autonomy (Bachman et al., 1996, p. 308).

The physician's willingness to refer is critical in predicting from which factors a physician may oppose PAS. Bachman et al. (1996) found that the greatest contributing factor to a physician's attitude on PAS was religion. In fact, roughly 96% of those surveyed affirmed that the importance of religion was either pretty or very important in deciding their view on PAS (Bachman et al., 1996). Furthermore,

> The widely replicated finding that strongly religious people are the most likely group to oppose such legalization was as evident in our study among physicians as among all adults in Michigan. Of the doctors who were asked about the importance of religion in their lives, those who said it was very important were the least likely to support legalization (Bachman et al., 1996, p. 308).

Ultimately, Michigan is divided in its support and opposition of PAS; and given its Midwestern location, one may predict this to be the case in Minnesota as well.

Conclusion

As shown above, the attitudes of healthcare professionals toward PAS have been studied predominately in regions of the country where PAS is legal. The goal of this research is to identify the distribution of views toward PAS present among physicians in Minnesota. This research is timely, in that Minnesota legislature will likely continue to vote on PAS in future years. The hope is that by identifying attitudes of physicians in Minnesota toward PAS, one can anticipate and more effectively handle future encounters with end-of-life issues.

Chapter 3: Methodology

Introduction

The purpose of this study was to gain knowledge about the opinions of Minnesota family medicine physicians toward PAS. An emphasis of the study was placed on determining whether patient diagnosis influences PAS permissibility. To accomplish this study, participants were asked whether or not they believe a patient should have access to PAS and how likely they would be to prescribe PAS at a patient's request in the context of three different situations. Included in this chapter are details about the participants, survey used, study design, procedures, limitations, and statistical methods of the study. This study hopes to address the following research questions:

1. Does physician support for access to PAS differ based upon physician age?
2. Does physician support for access to PAS differ based upon patient diagnosis?
3. Is there a difference between physician support for access to PAS and physician willingness to prescribe a lethal dose?
4. Does physician willingness to prescribe a lethal dose differ based upon patient diagnosis?

Participants

The researchers received permission from the Minnesota Academy of Family Physicians to survey its members. This population was selected for two primary reasons. First, family medicine physicians play an important role is the process of PAS, as they are the often the patient's first point of contact in the discussion of end of life issues. Second, current legislation in the United States allows only physicians to prescribe medications for PAS; PAs and NPs cannot.

Survey Tool

The researchers created three case studies to be included in the survey. The completed survey was subject to an expert panel of Bethel University faculty to ensure that the cases were realistic and to establish readability. The cases included patients facing end of life due to three different diagnoses: metastatic bone cancer, an inoperable brain tumor, and multiple sclerosis. Patient diagnosis was the only changing variable across each case study. For each case, the participants were asked whether PAS should be available to the patient, and if so, how likely would they be to prescribe the lethal dose of medication. The survey tool can be viewed in Appendix B.

A case-based format has been used by previous studies examining attitudes concerning physician-assisted suicide, which is thought to contribute to the validity of this survey. This survey is unique to this research; and therefore, lacks established reliability.

Study Design

This research was a quantitative cross-sectional study of the attitudes of physicians toward physician-assisted suicide. This research gathered numerical data to quantify the number of practicing family medicine physicians who find PAS permissible, as well as those who do not with regard to three different patient cases. This was a cross-sectional study, because data was collected at a specific point in time; and the group of participants included family medicine physicians with various years of practicing experience. Inclusion criteria for participation included being a member of MAFP and a practicing family medicine physician. Exclusion criteria included being a non-practicing family medicine physician.

Procedure

Researchers first received approval from a family medicine physician, a member of Minnesota Academy of Family Physicians, to co-chair their research committee. With the family medicine physician's collaboration, researchers met the criteria to request distribution of their survey to MAFP members at large. Researchers completed an IRB application for Bethel University (Appendix F). Researchers were also in contact with the Director of Resident and Medical Student Initiatives and Continuing Medical Education Accreditation at MAFP, who provided the MAFP Research Survey Request form for researchers to complete. This request form can be viewed in Appendix A. Upon approval from Bethel University's IRB and MAFP, this survey was distributed to MAFP members. Bethel University's IRB Approval Letter can be viewed in Appendix G.

As previously described, the participants included practicing family medicine physicians who were members of MAFP. The participants received a quarterly Newsflash email from MAFP, which included the hyperlink to the survey. It was thought that because a student-research survey was routinely included in this Newsflash email, members were accustomed to completing student-research surveys. When participants clicked on the survey hyperlink, they were first presented with an Informed Consent letter, which reminded the participants that the survey was optional and that it could be discontinued at any time without consequences. The Informed Consent also stated that the researchers believed there was minimal amount of risk associated with taking this survey, which included upsetting and/or distressing emotions and feelings due to the sensitive content of PAS. If the participants experienced anxiety, depression, or suicidal thoughts as a result of this survey, they were advised to call the National Disaster Distress hotline at 1-800-985-5990 or 911. The Informed Consent can be viewed in Appendix C. MAFP was not able to

accommodate a reminder email. Due to low response rate, researchers requested a second release of the survey. Instead, the Research and Quality Improvement Committee at MAFP agreed to distribute the survey to the Minnesota Academy of Family Physicians Research Network (MAFPRN). MAFPRN is a specialized group of MAFP members with an affinity for research. The correspondence with the MAFP contact can be viewed in Appendix D.

The electronic data, while being collected and analyzed, was kept on a password-protected computer owned by the researchers. Responses from non-practicing physicians were not included in the data analysis. After completion of this study, the data was kept on an external storage device locked in the PA program office for a minimum of five years, per securing requirements for Bethel University's Physician Assistant Program.

Limitations

The following are limitations the researchers believe may contribute to possible weakness of this study.

1. PAS does not only concern family medicine physicians, but also those in palliative care and oncology. The researchers did not have access to palliative care or oncology physicians for this study.
2. This survey asks participants to make serious medical decisions based on written information about the patient. Researchers recognize that the accuracy of responses are limited by the participants' inability to visualize and speak with the patient.
3. This study uses the term physician-assisted suicide. Researchers recognize that this term may elicit an underlying negative response from participants. In other

words, the negative connotation associated with the term suicide may prompt participants to answer survey questions in opposition of PAS access.

4. Participants may also experience upsetting and/or distressing thoughts and feelings due to the sensitive research topic, which may influence their responses.
5. This research will gather data on attitudes of physicians; and attitudes can be dynamic over time. This dynamic element limits the integrity of this data; and encourages future research on this topic.

Statistical Methods

An initial sample size of 44 participants was observed. Data received from the online survey underwent analysis using Real Statistics software for Microsoft Excel. Statistical analysis included chi-squared with a p-value and the Fisher exact test. Survey responses were presented in written and graphical form. Statistical findings were presented in written form and using tables.

Conclusion

In conclusion, this study was performed to identify the attitudes of practicing family medicine physicians in Minnesota on the use of physician-assisted suicide. Researchers created a survey tool to distribute to MAFP, which included case-based questions with the hopes of eliciting the most accurate responses. Despite the limitations of this study, researchers were confident that survey responses would provide a better understanding of how accepting family medicine physicians in Minnesota are of PAS, which would be helpful in navigating dialogue on this timely medical issue. Chapter 4 will provide the results per the statistical analysis described above and Chapter 5 will provide a discussion of the results.

Chapter 4: Results

Introduction

Chapter four contains the results of data analysis and is organized by demographic information, data collection modification, research questions with null hypotheses, survey question responses, and statistical analysis. The purpose of this section is to answer the proposed research questions. The survey responses will be displayed in written and graphical form. The statistical analysis will be displayed in written form and using tables. Statistical analysis was completed using Real Statistics software for Microsoft Excel. Statistical analysis included chi-squared with a p-value and the Fisher exact test.

Demographic Information

In total, 44 surveys were collected. Five surveys were removed on the basis of failing to meet criteria as practicing family medicine physicians. Data analysis was based on the 39 remaining surveys completed by family medicine physicians. One survey was completed without identifying age. This survey was removed from the analysis of physician support for access to PAS compared to physician age. It was included for the remaining analyses, as the participant met the inclusion criteria. In total, 39 surveys included responses from four individuals 29-40 years old, four individuals 41-50 years old, fourteen individuals 51-60, sixteen individuals 60 years old or older, and one of unknown age. The distribution of physician support for access to PAS according to physician age is displayed in Figures 1-3.

Data Collection

The survey requested participants to rate their willingness to prescribe a lethal dose to prematurely end a patient's life on a Likert scale. Due to the small sample size, the

responses of the Likert scale were translated into Yes and No. The Yes category includes the responses Very Likely and Likely, while the No category includes the responses Very Unlikely and Unlikely. Researchers have made the assumption that a participant who responded Very Likely or Likely would have responded Yes given the option. Likewise, researchers have made the assumption that a participant who responded Very Unlikely or Unlikely would have responded No given the option. Note that the Likert Scale did not include a neutral option.

Research Questions

1. Does physician support for access to PAS differ based upon physician age?

   Null hypothesis 1: Physician support for access to PAS does not differ based upon physician age.

   Hypothesis 1: Physician support for access to PAS does differ based upon physician age.

2. Does physician support for access to PAS differ based upon patient diagnosis?

   Null hypothesis 2: Physician support for access to PAS does not differ based upon patient diagnosis.

   Hypothesis 2: Physician support for access to PAS does differ based upon patient diagnosis.

3. Is there a difference between physician support for access to PAS and physician willingness to prescribe a lethal dose?

   Null hypothesis 3: There is no difference between physician support for access to PAS and physician willingness to prescribe a lethal dose.

Hypothesis 3: There is a difference between physician support for access to PAS and physician willingness to prescribe a lethal dose.

4. Does physician willingness to prescribe a lethal dose differ based upon patient diagnosis?

   Null hypothesis 4: Physician willingness to prescribe a lethal dose does not differ based upon patient diagnosis.

   Hypothesis 4: Physician willingness to prescribe a lethal dose does differ based upon patient diagnosis.

Responses

For the following section note that survey question 1 refers to the question, "Do you believe this patient should have access to a lethal dose of a drug to prematurely end his or her life (PAS)?" Survey question 2 refers to the question, "At the patient's request, how likely would you be to prescribe a lethal dose of a drug to prematurely end this patient's life (PAS)?"

The responses to Survey question 1 or each patient are quantified in Figures 1-3. Note that the amount of No and Yes responses among the four 29-40 years olds were consistent for each patient with three No's and one Yes of each. Likewise, the responses among the four individuals 41-50 years old were also consistent for each patient with one No and three Yes' of each.

In response to the Survey question 2, physician responses are illustrated in Figures 4-6. For Patient 1, 19 physicians responded No and 20 physicians responded Yes. For Patient 2, 24 responded No and 15 responded Yes. For Patient 3, 23 responded No and 16 responded Yes. Refer to Figures 4-6.

In response to the Survey question 3, responses were arranged into Yes and No categories. Those who responded Very Likely or Likely were grouped into the Yes category. Those who responded Very Unlikely and Unlikely were grouped into the No category. Using these adjusted categories, physician responses are illustrated in Figures 4-6. For each patient, the response majority was No. For Patient 1, 29 physicians responded No and 10 physicians responded Yes. For Patient 2, 32 responded No and 7 responded Yes. For Patient 3, 31 responded No and 8 responded Yes.

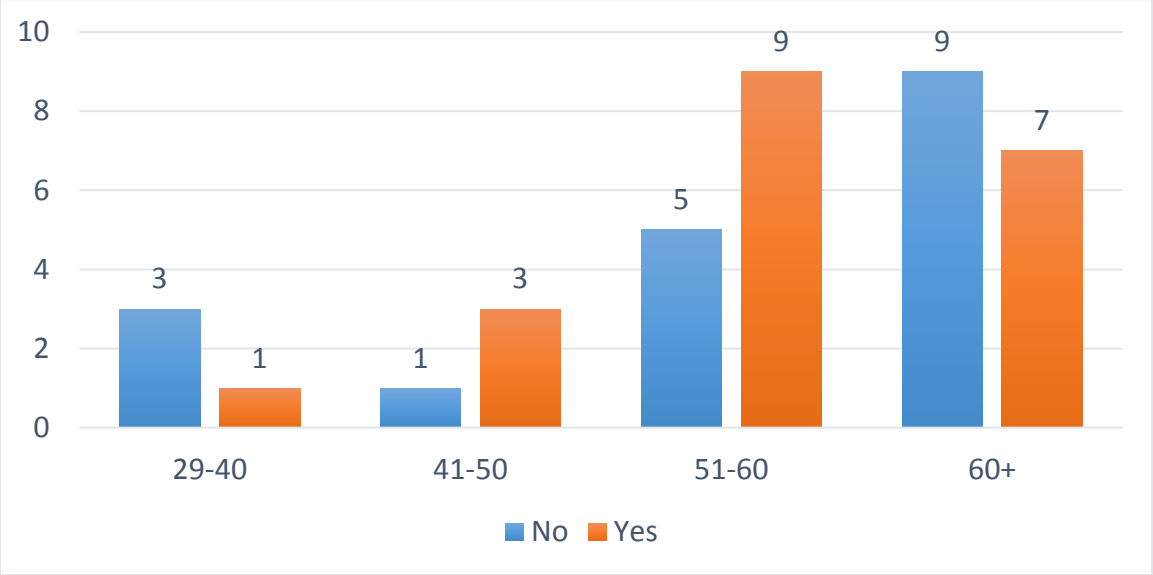

Figure 1. A comparison of physician support for access to PAS and physician age. This figure illustrates physician support for access to PAS based upon physician age for a patient with metastatic bone cancer (p-value = 0.376, alpha-value = 0.05).

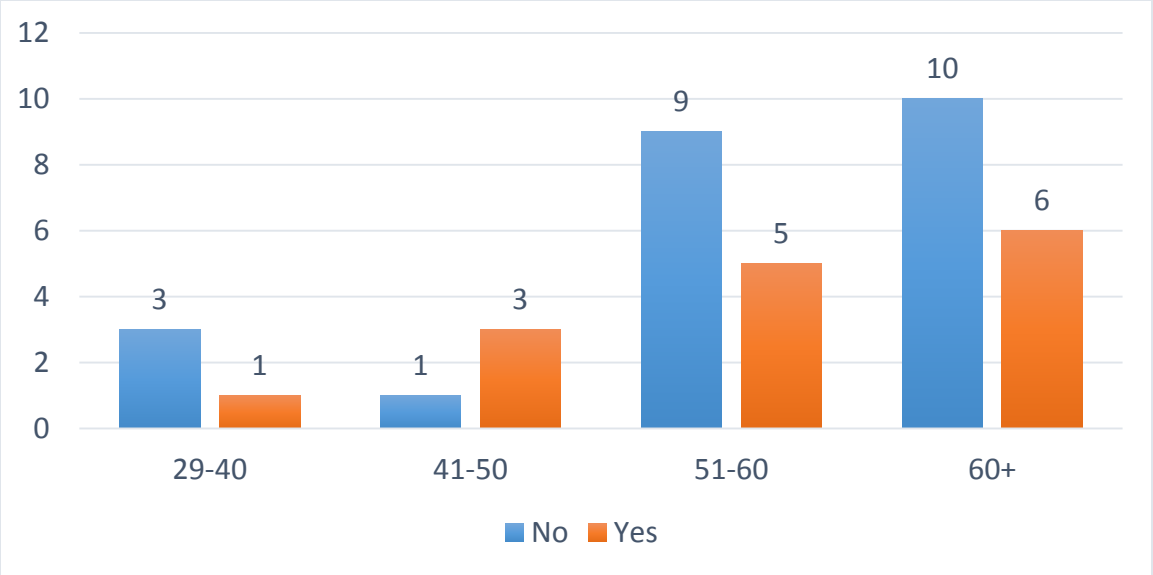

Figure 2. A comparison of physician support for access to PAS and physician age. This figure illustrates physician support for access to PAS based upon physician age for a patient with progressive multiple sclerosis (p-value = 0.583, alpha-value = 0.05).

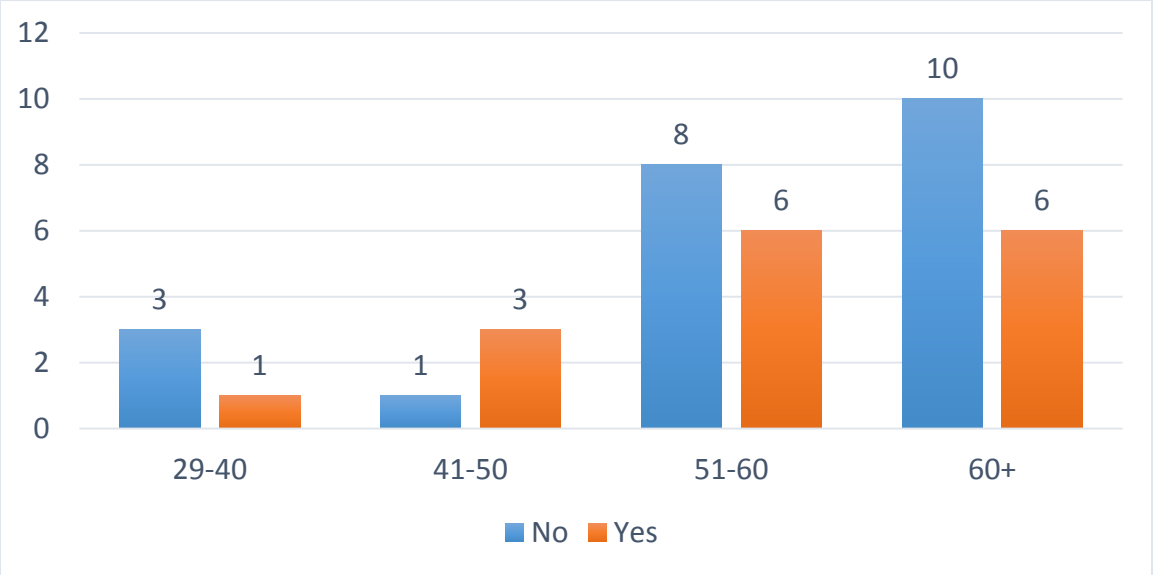

Figure 3. A comparison of physician support for access to PAS and physician age. This figure illustrates physician support for access to PAS based upon physician age for a patient with an inoperable brain tumor (p-value = 0.634, alpha-value = 0.05).

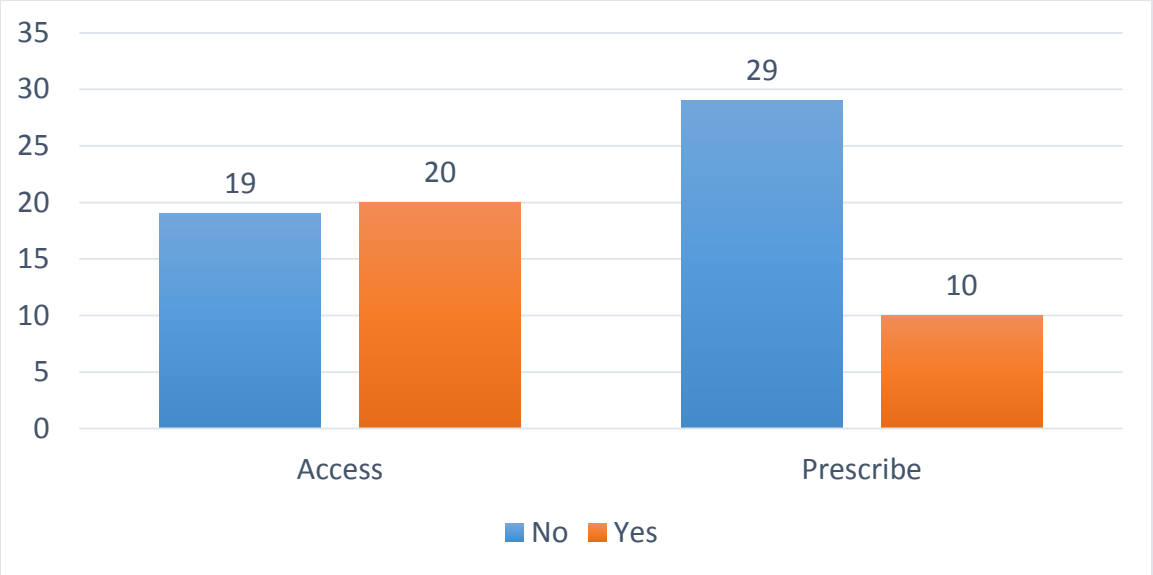

Figure 4. A comparison of physician support for access to PAS and willingness to prescribe a lethal dose to a patient with metastatic bone cancer. This figure illustrates a significant difference between physician support for access to PAS and willingness to prescribe a lethal dose to a patient with metastatic bone cancer (p-value = 0.000436, alpha-value = 0.05).

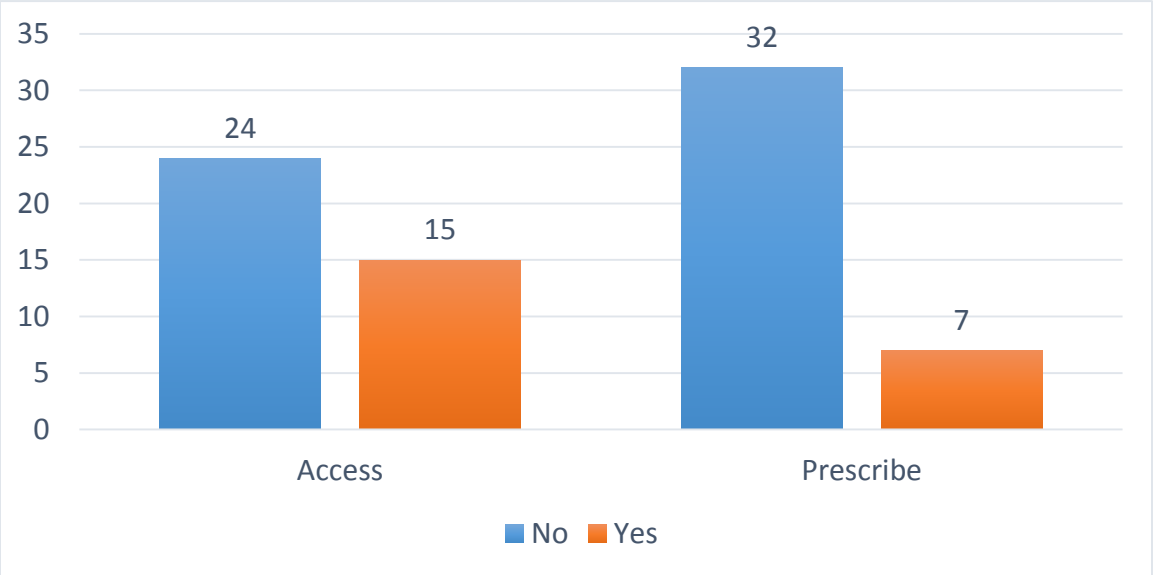

Figure 5. A comparison of physician support for access to PAS and willingness to prescribe a lethal dose to a patient with progressive multiple sclerosis. This figure illustrates a significant difference between physician support for access to PAS and willingness to prescribe a lethal dose to a patient with progressive multiple sclerosis (p-value = 0.000418, alpha-value = 0.05).

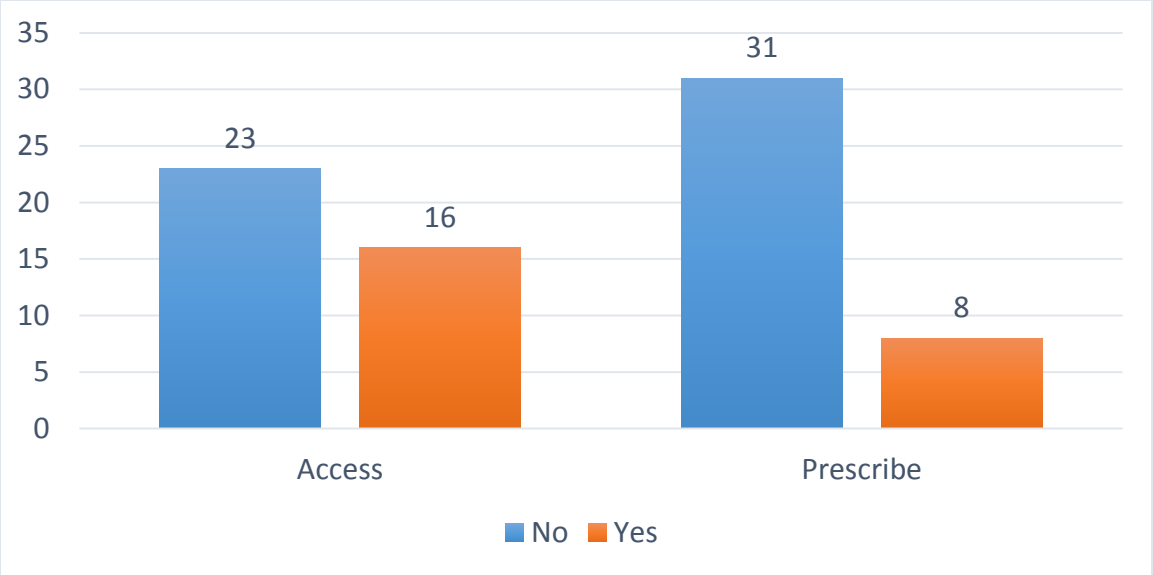

Figure 6. A comparison of physician support for access to PAS and willingness to prescribe a lethal dose to a patient with an inoperable brain tumor. This figure illustrates a significant difference between physician support for access to PAS and willingness to prescribe a lethal dose to a patient with an inoperable brain tumor (p-value = 0.000209, alpha-value = 0.05).

Statistical Findings

This was a cross-sectional study in which nominal data was evaluated. Nominal data does not have numerical value, but rather represents categories. Categorical data is best analyzed using a Chi-square calculation. Chi-squared calculations with corresponding p-values were used to determine whether physician support for access to PAS differs based upon physician age, whether physician support for access to PAS differs based upon patient diagnosis, whether there is a difference between physician support for access to PAS and willingness to prescribe a lethal dose, and whether physician willingness to prescribe a lethal dose differs based upon patient diagnosis. In addition, the Fisher Exact test was used for each chi-squared calculation with expected values under 5. This included the analysis determining whether physician support for access to PAS differs based upon physician age ,

as well as the difference between physician support for access to PAS and willingness to prescribe a lethal dose.

A chi-squared calculation based on three degrees of freedom was completed for each patient scenario to determine whether physician support for access to PAS differs based upon physician age. When converted into percentage form, the p-value indicates the probability that the observed data distribution was due to chance. For each patient, the p-value was greater than 0.05, indicating that the observed data distribution was due to chance more than 50% of the time. This is insignificant and therefore, the null hypothesis cannot be rejected (Table 1). Ultimately, physician support for access to PAS does not differ based upon physician age.

Table 1. Physician support for access to physician-assisted suicide related to physician age. This table illustrates the results of statistical analysis in determining whether physician support for access to PAS differs based upon physician age.

	Patient 1	Patient 2	Patient 3
Chi-squared	3.297	2.573	2.398
p-value	0.376	0.583	0.634
Significance	None	None	None

Addressing research question 2, statistical analysis comparing physician support for access to PAS and patient diagnosis revealed that the observed data distribution was due to chance 48.2% of the time and therefore, the null hypothesis cannot be rejected (Table 2). Physician support for PAS does not differ based upon patient diagnosis.

Table 2. Physician support for access to physician-assisted suicide and willingness to prescribe a lethal dose compared across three different diagnoses. This table illustrates the results of statistical analysis in determining whether physician support for access to PAS and willingness to prescribe a lethal dose differs based patient diagnosis.

	Support for PAS Access	Willingness to Prescribe a lethal dose
Chi-squared	1.460	0.712
p-value	0.482	0.700
Significance	None	None

Statistical analysis comparing physician support for PAS and willingness to prescribe a lethal dose for a patient with metastatic bone cancer revealed that that the observed data distribution was due to chance only 0.0436% of the time (Table 3). In this case, the null hypothesis must be rejected. There is a significant difference between physician support for access to PAS and willingness to prescribe a lethal dose for patient 1.

For the second case concerning a patient with progressive multiple sclerosis, statistical analysis revealed that the observed data distribution was due to chance only 0.0418% of the time (Table 3). Ultimately, the null hypothesis must be rejected. There is a significant difference between physician support for access to PAS and willingness to prescribe a lethal dose for patient 2.

Finally, statistical analysis comparing physician support for access to PAS and willingness to prescribe a lethal dose for patient with an inoperable brain tumor demonstrated that the observed data distribution was due to chance 0.0209% of the time (Table 3). Once again, the null hypothesis must be rejected. There is a significant difference between physician support for access to PAS and willingness to prescribe a lethal dose for patient 3.

Table 3. Physician support for access to PAS related to willingness to prescribe a lethal dose. This table illustrates the significant difference between physician support for access to PAS and willingness to prescribe a lethal dose for each patient diagnosis.

	Patient 1	Patient 2	Patient 3
Chi-squared	12.776	13.65	14.468
p-value	0.000436	0.000418	0.000209
Significance	Yes	Yes	Yes

Addressing research question 4, statistical analysis comparing physician willingness to prescribe a lethal dose and patient diagnosis revealed that the observed data distribution was due to chance 70.0% of the time and therefore, the null hypothesis cannot be rejected (Table 2). Physician willingness to prescribe a lethal dose does not differ based upon patient diagnosis.

Chapter 5: Discussion and Conclusion

Introduction

The purpose of this study was to better understand how Minnesota family practice physicians view physician-assisted suicide. A survey was distributed to members of the Minnesota Academy of Family Physicians. Respondents included physicians of all different ages. This chapter will discuss the implications of the statistical findings, the limitations of the study, as well as opportunities for further research related to PAS.

Summary of Results

The first research question sought to determine whether physician support for access to PAS differs based upon physician age. During the literature review process, researchers realized that little data had been collected to determine the relationship between these two variables. The data collected in this study found that physician support for access to PAS does not differ based upon physician age (p-values = 0.376, 0.583, and 0.634 for patients 1, 2, and 3 respectively). Researchers had expected to find increased support among younger physicians in comparison to older physicians. Researchers expected this because PAS has been growing in acceptance in the general population over time, as evidenced by the recent acceleration in legalization of PAS throughout the country. The lack of a significant difference among physician support for access to PAS based upon physician age suggests two different conclusions: (1) the change in acceptance in the general population is due to increasing influence of younger individuals, but this trend is not reflected in Minnesota family physicians, or (2) the change in acceptance in the general population may be due to dynamic opinions of individuals regardless of age, rather than an increasing influence of younger individuals. It is also important to note that the sample size

in each age group was not equal, which compromises the validity of the calculation. In fact, 4 physicians were 25-29, while 16 physicians were 60 years and older (Figures 1-3). If there were equal respondents per physician age category, then this lack of relationship would be more reliable.

The second research question sought to determine whether physician support for access to PAS differs based upon patient diagnosis. For example, do physicians find the diagnosis of chronic pain due to bone cancer a reasonable situation for PAS us, but not worsening multiple sclerosis? Ultimately, the data collected in this study revealed no significant difference between these two variables (p-value = 0.482). This was surprising to the researchers given the results of Emanuel et al. (1996), which illustrated a significant difference of opinion regarding access to PAS between patients with similar diagnoses to those used in the survey tool of this study. Since Emanuel et al. (1996) obtained a larger sample size, they were more likely to discern a statistical difference. Sample size is a limitation of this study. Furthermore, Emanuel et al. (1996) surveyed oncologists rather than family physicians, which may contribute to the difference in results.

The third research question sought to determine whether a difference exists between physician support for patient access to PAS and willingness to prescribe a lethal dose of medication to assist the patient in ending his or her life. The analysis revealed interesting results. A chi-squared test revealed a significant difference between the belief that a patient should have access to PAS and willingness to prescribe the medication for all three patients. For patient one, 20 respondents believed that the patient should have access to PAS, while only 10 said they would prescribe a lethal dose (p-value = 0.000436). For patient two, 15 respondents believed the patient should have access to PAS, while only 7

said they would prescribe a lethal dose (p-value = 0.000418). For patient three, 16 respondents said the patient should have access to PAS but only 8 said they would prescribe (p-value = 0.000209). This is similar to the findings of Emanuel et al., 2000 which found that 22.5 percent of oncology physicians were supportive of PAS while only 15.5 percent were willing to personally prescribe the medication. The results of this study indicate that physician support for access to PAS does not imply physician willingness to prescribe a lethal dose.

One possible explanation for this difference may be a preference to defer this responsibility to oncologists and palliative care physicians. Family physicians in support of access to PAS may assume the specialist is more knowledgeable and experienced with physician-assisted suicide requests and actions. Another similar explanation may be that physicians answered Yes to support for access to PAS because they highly value patient autonomy. Just as they believe patients have the right to do what they want with their bodies, physicians have the right to follow their own convictions and practice within the scope they feel comfortable. These physicians may be personally opposed to prescribing the lethal medication, but still believe patients should have this choice if they find a physician who is willing. Further research may consider asking physicians if they would be willing to refer a patient to a prescribing physician. Responses to this question would strengthen the conclusions of this study. Ultimately, these statistical findings support the relationship and dual decision making between the patient and physician. This result explains why the utilization of PAS continues to remain low, despite it becoming legal in more states across the country.

The fourth research question sought to determine whether physician willingness to prescribe a lethal dose differs based upon patient diagnosis. Statistical analysis demonstrated no significant difference between these two variables (p-value= 0.700). This indicates that physician willingness to prescribe a lethal dose is not dependent on patient diagnosis. This is consistent with the finding that physician support for access to PAS does not differ based upon patient diagnosis. One may understand this result to suggest that physicians do not make the decision to prescribe PAS based on the situation and instead, are either willing or not willing. It is important to note that originally, physicians responded Very unlikely, Unlikely, Likely, and Very likely. As mentioned previously, due to the small sample size the four Likert Scale responses were organized into Yes and No. Researchers chose to use a Likert Scale because they understood the importance of the situation in decision-making. It is possible that results would be different had the analysis been based on the Likert Scale responses. Furthermore, it is possible that physicians answered similarly to each case because the diagnoses used in this survey tool were also similar. This means that the results are limited to the diagnoses presented in this study.

Limitations

There were multiple limitations of this study. The greatest limitations were sample population and size. While PAS may be more prevalent among oncology and palliative care physicians, researchers were unable to obtain data from physicians within these specialties in Minnesota. Family medicine physicians may or may not be first line to discuss PAS, but they are abundant in Minnesota and therefore, made a feasible study population. Expanding the research to understand how PAS is viewed within these specialties may be

more helpful and accurate in understanding how PAS will be approached in Minnesota, should it become legal in Minnesota.

Same size was another limitation. Of 44 total surveys collected, only 39 met inclusion criteria and only 38 identified their age. Researchers goal was a sample size of 50, but more than 50 would have been ideal. Researchers cannot assume that these results reflect the attitudes of family physicians at large. Another limitation was the form of survey distribution. The survey was delivered via email within a MAFP newsletter. More specifically, the survey link was included at the end of the newsletter. There may be selection bias to those who receive the electronic newsletter, as well as those who participate in the surveys. Likewise, many family physicians who received the newsletter email may not have read the complete newsletter and thus, failed to complete the survey. Furthermore, responses may have been influenced by the physicians' emotional reactions to the survey questions, as this was a sensitive topic with the possibility of eliciting upsetting and/or distressing thoughts and feelings, especially if an individual has personal experience with PAS use by a friend or family member. Researchers were aware that responses would be shaped by the physicians' careers and personal life experiences, which is a natural component of decision-making. Overall, future researchers may be able to expand on the findings of this study by eliminating these limitations.

Recommendations for Further Research

Review of this study allows researchers to suggest recommendations for future research on the attitudes of physicians toward physician-assisted suicide. The first recommendation would be to obtain a larger sample size. The purpose of a larger sample size is to demonstrate a more accurate representation of physician attitudes and thus,

improve the statistical power of the results. A larger sample size may be obtained by reaching out to a health system and/or multiple physician organizations in addition to MAFP. Another method to increase sample size would be to obtain a higher response rate. It is possible that members missed the Newsletter email and thus, never completed the survey. Response rate may also be improved by distributing surveys in personal to multiple clinics throughout Minnesota. The thought is that personal delivery may improve response rate. Unfortunately, this may interfere with keeping the data anonymous to the researchers. Efforts would need to be made to deliver the surveys in such a way that responses are kept anonymous. Future research may also consider expanding the population to other Midwest states.

Furthermore, future studies may address new research questions, such as what is the greatest predicting factor for physician support for access to PAS and/or physician willingness to prescribe a lethal dose? Rather than hypothesizing why many physicians in this study responded Yes to support for access to PAS, but No to willingness to prescribe a lethal dose, future research may reveal physician reasoning. Other research questions may include the following: Does physician support for access to PAS differ based upon physician gender? Does physician willingness to prescribe a lethal dose differ based upon years of practice? Does physician support for access to PAS differ based upon physician spirituality? The authors of this study believe that future research will continue to be relevant and necessary as physician-assisted suicide expands across the United States.

Conclusion

Based on the collected data, the attitudes of family physicians toward physician-assisted suicide were evaluated. The data was collected using the survey tool designed for

this unique study. The sample population included 39 members of the Minnesota Academy of Family Physicians, who were currently practicing physicians. Data analysis was performed using chi-squared calculations with corresponding p-values.

Despite the small sample size, a significant difference was found to exist between physician support for access to PAS and willingness to prescribe a lethal dose for each patient diagnosis (p-values = 0.000436, 0.000418, and 0.000209 for Patients 1, 2, and 3 respectively). This suggests that physicians may (1) prefer to defer the responsibility to prescribe a lethal dose to oncologists or palliative care physicians and/or (2) value patient autonomy without compromising their own moral convictions. As suggested above, this survey tool may be altered to include a question about whether the physician would refer a patient requesting PAS to a prescribing provider.

In comparison, no difference was found to exist between physician support for access to PAS based upon physician age (p-values = 0.376, 0.583, and 0.634 for patients 1, 2, and 3 respectively). No difference was found to exist between physician support for access to PAS based upon patient diagnosis (p-value = 0.482); and finally, no difference was found to exist between physician willingness to prescribe a lethal dose based upon patient diagnosis (p-value = 0.700). The lack of significance among these variables may be due to the sample size. The patient diagnoses and situations may also be too similar and thus, elicit comparable responses.

Over the course of this study, physician-assisted suicide did not pass through legalization in Minnesota. However, researchers anticipate PAS to continue to be of discussion in upcoming legislative seasons. The goal of this study was to clarify current attitudes of Minnesota family physicians, and hopefully drive further research of this

important topic. While PAS is not currently legal in Minnesota, preparedness to handle such situations will benefit the patient-physician relationship. This study has only scraped the surface of understanding how physicians view PAS. Given its limitations, future research is necessary to fully grasp the breadth of physician attitudes toward PAS.

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APPENDIX A: Survey Request Form for Minnesota Academy of Family Physicians

MAFP Research Survey Request

Please use this form to request to have a link to your research survey placed in the Minnesota Academy of Family Physicians Newsflash Email OR to receive mailing label data for your survey. Please refer to the Guidelines for MAFP Collaboration on Research Projects when considering your request.

Please save this form to your computer, complete, and email as an attachment to lregehr@mafp.org

Topics
Projects should contain original research and be relevant to family medicine. All categories of research will be considered, including practice-based, community-oriented and participatory projects, and descriptive studies. Quality Improvement projects, clinical case presentations, and literature reviews are acceptable *if* they generate original conclusions.

Title of Research Project Attitudes Regarding Physician-Assisted Suicide Among Minnesota Family Medicine Physicians

Researcher Information

Name (include designation, M.D., Ph.D., etc.) Lauren Cooke PA-S, Lindsay Emmerich PA-S, and Sam Feyder PA-S

Email lmc39273@bethel.edu, lrb5579@bethel.edu, and stf45596@bethel.edu

Phone (248)-990-1478, (630)-408-2826, (218)-839-7574

Address 2 Pine Tree Drive, Arden Hills, MN 55112

Other Authors/Investigators (include designation, M.D., Ph.D., etc.) N/A

Objective or Hypothesis This study will address the following research questions:
1. Does age of the physician correlate with support for physician-assisted suicide?
2. Does the diagnosis of the patient correlate with support for physician-assisted suicide?
3. If a physician believes a patient should have access to physician-assisted suicide, how likely is he or she to prescribe the lethal dose?

This research is a quantitative cross-sectional study of the attitudes of physicians towards physician-assisted suicide. This research will gather numerical data to quantify the number of practicing family medicine physicians who find PAS permissible, as well as those who do not with regard to three different patient cases.

Population Practicing Family Medicine Physicians. Our goal is 50 or more participants.

Methodology Survey

IRB Approval ☒ OR **IRB Exemption** ☐

HIPAA Compliance ☒

Mentor(s) Research chair: Christy Hanson PA-C, c-hanson@bethel.edu

Reader and MAFP/ AAFP member: Dr. Herb Holman, Herbert.A.Holman@lakeview.org

Funding Sources N/A

Please attach an example of the survey.

APPENDIX B: Survey tool

Please read the following definition before completing the survey.

Physician-assisted suicide (PAS) refers to the prescription of a lethal dose of a drug to prematurely end a patient's life. The patient must be able to ingest the medication him/herself. This does not include a medical professional administering a lethal injection that causes death of a patient.

Age
_____29-40
_____41-50
_____51-60
_____60+

Are you currently a practicing physician?
_____ Yes
_____ No

In what area of medicine do you currently practice?
_____ Family Medicine
_____ Other, please comment _____

Please read the following vignettes and answer the corresponding questions. For the quality of our research, we ask for your full honesty. If this survey becomes distressing, please remember you can discontinue at any time without repercussions.

1. A 70-year old patient with metastatic bone cancer is in excruciating pain. The patient's prognosis is less than 6 months. All palliative care options have failed to control the pain. The patient is well-informed regarding his/her condition and treatment options, including PAS. The patient and his/her family have discussed the options and are requesting a prescription for PAS.

Do you believe this patient should have access to a lethal dose of a drug to prematurely end his or her life (PAS)?
____ Yes
____ No

At the patient's request, how likely would you be to prescribe a lethal dose of a drug to prematurely end this patient's life (PAS)?
_____ Very likely
_____ Likely
_____ Unlikely
_____ Very unlikely

2. A 70-year old patient with a 30-year history of multiple sclerosis is experiencing rapid decline in quality of life. The patient is no longer ambulatory and is fearful of the emanating physical decline associated with MS. The patient's prognosis is less than 6 months. The patient is well-informed regarding his/her condition and treatment options, including PAS. The patient and his/her family have discussed the options and are requesting a prescription for PAS.

Do you believe this patient should have access to a lethal dose of a drug to prematurely end his or her life (PAS)?
____ Yes
____ No

At the patient's request, how likely would you be to prescribe a lethal dose of a drug to prematurely end this patient's life (PAS)?
_____ Very likely
_____ Likely
_____ Unlikely
_____ Very unlikely

3. A 70-year patient was recently diagnosed with an inoperable brain tumor. The patient's prognosis is less than 6 months. The patient is fearful of the mental decline that will likely occur before death. The patient is well-informed regarding his/her condition and treatment options, including PAS. The patient and his/her family have discussed the options and are requesting a prescription for PAS.

Do you believe this patient should have access to a lethal dose of a drug to prematurely end his or her life (PAS)?
____ Yes
____ No

At the patient's request, how likely would you be to prescribe a lethal dose of a drug to prematurely end this patient's life (PAS)?
_____ Very likely
_____ Likely
_____ Unlikely
_____ Very unlikely

Thank you. We appreciate your participation!

APPENDIX C: Informed Consent

Dear Minnesota Academy of Family Physicians member,

We are physician assistant students from Bethel University's Physician Assistant Program, conducting research in partial fulfillment of the requirements for a Masters Degree in Physician Assistant Studies. Our study is investigating the attitudes of family medicine physicians on physician-assisted suicide. We hope to learn whether the attitudes of family medicine physicians on physician-assisted suicide change based on the patient's diagnosis.

You were selected as a possible participant in this study because you are a member of MAFP. The student researchers are interested in family medicine, which prompted their choice of topic.

Attached is a survey to gather necessary information to complete the data collection of this research. The survey will take approximately 5-10 minutes to complete. By completing this survey, you are indicating informed consent to participate in this study. Your participation in this study is voluntary and you can withdraw at any time. You are free to omit any question. Your decision whether or not to participate will not affect your future relations with Minnesota Academy of Family Physicians or Bethel University in any way.

We believe there is greater than minimal risk associated with taking this survey, as it does include sensitive topics and may elicit upsetting and/or distressing thoughts and feelings. If you experience anxiety, depression, or suicidal thoughts as a result of this survey, please call the National Disaster Distress hotline at 1-800-985-5990 or 911.

This is an anonymous survey. No identifying information will be collected from this survey or MAFP.

This research project has been reviewed and approved in accordance with Bethel University's Levels of Review for Research with Humans. If you have any questions about the research and/or research participants' rights or wish to report a research related injury, please contact Sam Feyder PA-S researcher at stf45596@bethel.edu or Christy Hanson PA-C, research chair at c-hanson@bethel.edu.

A copy of this form will be available upon request to Minnesota Academy of Family Physicians.

We understand that you have an extremely busy schedule and your time is limited. Please realize that your participation is vital to the success of this research. The information that you provide is essential to the validity of this study. Thank you in advance for your prompt response to this study. Please complete the survey by October 31, 2017. If you have any questions, please contact Sam Feyder PA-S researcher at stf45596@bethel.edu or Christy Hanson at c-hanson@bethel.edu.

Thank you again for your help.
Sincerely,

Lauren Cooke PA-S
Lindsay Emmerich PA-S
Sam Feyder PA-S

APPENDIX D: Email Correspondence with MAFP

Request for Research Survey Collaboration

Inbox x

Lindsay Bartkowiak <lrb55769@bethel.edu> 1/20/17
to lregehr

Hi Lisa,

My name is Lindsay Emmerich and I am a PA student at Bethel University. My teacher, Lisa Naser, emailed you previously about the potential for surveying MAFP members for my group's research project. I have read the attachment you included with the guidelines. We do have a MAFP member who has agreed to collaborate with us, Herb Holman. I am wondering if there is an application that I need to fill out in order to move forward. It is my understanding that surveys are included in a quarterly newsletter on a first-come first-serve basis. Am I understanding correctly? Thank you for your time. Look forward to hearing from you!

Sincerely,

Lisa Regehr <lregehr@mafp.org> 1/20/17
to me

That's wonderful news, Lindsay! The next step to take is to complete the survey request form attached.

From: Lindsay Bartkowiak [mailto:lrb55769@bethel.edu]
Sent: Friday, January 20, 2017 1:39 PM
To: Lisa Regehr <lregehr@mafp.org>
Subject: Request for Research Survey Collaboration

Lindsay Bartkowiak <lrb55769@bethel.edu> 5/1/17
to Lisa

Hi Lisa,

It has been a while since we last corresponded. To remind you, I'm a PA student at Bethel University and my research group is hoping to distribute our survey to MAFP members. At this time, we are near ready to submit our project to the IRB at Bethel University. We will be emailing you a completed MAFP application shortly. We are wondering when the the Quarterly Newsflash emails are released to your members (month and date)? We want to include this information in our formal IRB application. Thank you in advance!

Sincerely,
Lindsay

Lisa Regehr <lregehr@mafp.org> 5/1/17
to me

They usually go out every two weeks although we only sent out requests on a quarterly basis. Yours would be the first one we have had in a while so tell us your schedule and we can start from there. Did you send the request for survey form back yet?

From: Lindsay Bartkowiak [mailto:lrb55769@bethel.edu]
Sent: Monday, May 1, 2017 10:29 AM
To: Lisa Regehr <lregehr@mafp.org>
Subject: Re: Request for Research Survey Collaboration

Lindsay Bartkowiak <lrb55769@bethel.edu> 5/1/17
to Lisa

I've attached the completed survey request form, as well as our survey tool with the Informed Consent. Our Informed Consent reads Oct 31, 2017 as the final day to collect data, but this is an ambiguous date and can be changed. We will also put our survey into an online form (Qualtrics) for easy distribution via email. Is this what you would suggest?

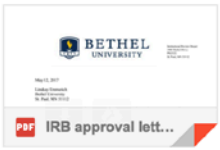
My group is planning to send our project to Bethel's IRB this week. I believe the board meets on May 11, so if our project is approved, then we would be set to distribute the survey and collect our data any time after June 1. The sooner the better! Let me know your thoughts.

2 Attachments

Lindsay Bartkowiak <lrb55769@bethel.edu> 5/12/17
to Lisa

Hello Lisa,

I have attached the letter I received from Bethel's IRB granting approval to pursue this research study. Bethel's approval is only pending formal approval by MAFP. Let me know what we can do next! Thank you.



Lisa Regehr <lregehr@mafp.org> 5/12/17
to me

Great Lindsay I needed that before I could send it on I'll do that on Monday

- Lisa Regehr
Director of Resident & Medical Student Initiatives and Continuing Medical Education Accreditation
Minnesota Academy of Family Physicians
600 S. Highway 169, Suite 1680
St. Louis Park, MN 55426
952-224-3875
lisa@mafp.org
www.mafp.org

Lisa Regehr <lregehr@mafp.org> 5/22/17
to me

Lindsay – I have sent your request for survey participation out to our review committee. I just want to make sure that as stated on the survey request form that the link is placed in our newsflash email. We cannot guarantee open rate or participation rate.

From: Lindsay Bartkowiak [mailto:lrb55769@bethel.edu]
Sent: Monday, May 1, 2017 2:13 PM

From: Lindsay Bartkowiak [mailto:lrb55769@bethel.edu]
Sent: Wednesday, June 7, 2017 9:54 PM
To: Lisa Regehr <lregehr@mafp.org>
Subject: Bethel University Research

Hi Lisa!

I'm sorry for the delay in this email. I was waiting for the OK from my professor. Please let me know if this excerpt is too long. Also, I was wondering if it is possible to include a "follow-up reminder" in a later newsletter? These reminders seem standard, at least in surveys distributed to us, students.

To be included in the newsletter:

This survey was created by physician assistant students at Bethel University as part of their capstone research project. The goal of this survey is to investigate the attitudes of family medicine physicians on physician assisted suicide. While physician assisted suicide is not currently legal in Minnesota, it continues to appear in legislation, making it a relevant issue. This survey should take approximately 3-5 minutes to complete. All responses are anonymous and confidential. Please consider taking the time to complete this survey.

Here is our survey link : Click here for Bethel Physician Assisted Suicide survey

Thank you!

On Thu, Jun 8, 2017 at 7:57 AM Lisa Regehr <lregehr@mafp.org> wrote:

> I think this has come together well. I don't have any changes here. Are you ready for me to send it to our communications manager? One was sent earlier this week. I will let you know the exact date when I hear back from her.
>
> As to a reminder - we have not done that in the past but I can propose it.

On Fri, Jun 9, 2017 at 9:08 AM, Lisa Regehr <lregehr@mafp.org> wrote:

> The next NN is scheduled for Wed, 6/28 your survey will be listed there.

From: Lindsay Bartkowiak [mailto:lrb55769@bethel.edu]
Sent: Monday, July 10, 2017 2:27 PM
To: Lisa Regehr <lregehr@mafp.org>
Subject: Re: Bethel University Research

Hi Lisa,

I hope this email finds you well. I am wondering if it is possible to send a reminder email to MAFP members with our survey link? Or if our survey link could be included in the next newsletter? It was released on June 28th, but our response rate was low. We knew this was likely, but a reminder may provide a few more responses to strengthen our data. Let me know if this is possible. Thank you!

Sincerely,
Lindsay Emmerich

On Mon, Jul 10, 2017 at 4:23 PM, Lisa Regehr <lregehr@mafp.org> wrote:

> We will not be able to accommodate a reminder on the survey. I can tell you that your survey had one of the highest response rates in the news now. I am going to recommend to the Research & Quality Improvement Committee that we discontinue the survey placement in our news now as the response rate is not useful for studies.
>
> What is your deadline for collecting data on this?
>
> - Lisa

From: Lindsay Bartkowiak [mailto:lrb55769@bethel.edu]
Sent: Tuesday, July 11, 2017 11:45 AM

To: Lisa Regehr <lregehr@mafp.org>
Subject: Re: Bethel University Research

Lisa,

We do not have a set deadline, but no later than December. We really appreciate all the effort you have put in to help us! If MAFP would be willing to reenter our survey in an upcoming newsletter, that would be great. If not, we completely understand. Thank you again.

Lindsay

On Tue, Jul 11, 2017 at 11:50 AM, Lisa Regehr <lregehr@mafp.org> wrote:

> So I am going to approach the RQI Committee about redirecting this to our specialized research group where we can track and remind.

From: Lindsay Bartkowiak [mailto:lrb55769@bethel.edu]
Sent: Thursday, August 31, 2017 12:49 PM
To: Lisa Regehr <lregehr@mafp.org>
Subject: Re: Bethel University Research

Hi Lisa!

It has been awhile since we last spoke. It sounds like summer was busy for you. I am currently in the midst of rotations, so my research project has been put on the back burner. I'm wondering if there is still a possibility to redirect my project to the specialized research group, where I could hopefully gain more responses. Let me know if this still in the cards. I appreciate your help and respect that you have greater items on your agenda. If this is not doable, I won't take up any more of your time. Let me know.

Sincerely,

Lindsay Emmerich

Lisa Regehr <lregehr@mafp.org> 9/19/17

to me

Lindsay – Do you have time to call me today maybe at 3:00 pm OR later? We should just go ahead and send this out. I just need to make time for it and today would be the day.

Lindsay Bartkowiak <lrb55769@bethel.edu> Mar 31 (1 day ago)

to Lisa

Hi Lisa!

I hope you are doing well. We last spoke over the phone awhile ago! At this time, I am approaching graduation and wrapping up my research paper. As you may recall, my research survey was distributed to MAFP members at large and then to a subgroup of members who volunteer to complete research surveys. I am wondering if you can confirm the title of this subgroup, as I need it for documentation. Also, do you by chance have the date that my survey was distributed to both MAFP members at large and then to the subgroup. Thank you so much!

Sincerely,

Lisa Regehr 5:31 PM (21 hours ago)

to me

MAFPRN is the acronym Minnesota Academy of Family Physicians Research Network.

Congrats on your graduation!

Get Outlook for iOS

From: Lindsay Bartkowiak <lrb55769@bethel.edu>
Sent: Saturday, March 31, 2018 12:43 PM
Subject: Re: Lindsay can you call Lisa at the MAFP today? - Bethel University Research
To: Lisa Regehr <lregehr@mafp.org>

APPENDIX E: Excerpt included in Newsflash Email

This survey was created by physician assistant students at Bethel University as part of their capstone research project. The goal of this survey is to investigate the attitudes of family medicine physicians on physician assisted suicide. While physician assisted suicide is not currently legal in Minnesota, it continues to appear in legislation, making it a relevant issue. This survey should take approximately 3-5 minutes to complete. All responses are anonymous and confidential. Please consider taking the time to complete this survey.

Survey link : Click here for Bethel Physician Assisted Suicide survey

APPENDIX F: Bethel University IRB Application

For office use only:
Code number _____ Action:
Date reviewed _____

Request for Approval of Research with Human Participants In Social and Behavioral Research

Institutional Review Board for Research with Humans
Bethel University
P.O. Box 2322
3900 Bethel Drive
St. Paul, MN 55112

College and Federal policies require that each project involving studies on humans be reviewed to consider 1) the rights and welfare of the individuals involved; 2) the appropriateness of the methods used to secure informed consent; and 3) the risk and potential benefits of the investigation. Bethel has a three-level review structure, such that not all research proposals need to come to the IRB committee. The levels of review and their associated criteria may be viewed on Bethel's website. **Research may not be initiated prior to formal, written approval by the appropriate committee or person.**

The information on the following pages is necessary for review. Answer each item thoroughly, and put N/A for those that do not apply. Label each piece of information by section letter (A – G), item number (1, 2, etc.), and the boldface headers for each item. **Proposals lacking information will be returned without review**. Attach your typewritten pages to this cover sheet.

Submit the completed form to the committee, either at the above address or, if this is Bethel student research, to your research advisor. You *will not* receive this proposal back, so be sure you keep a copy of the materials you submit. You will be notified by letter of the committee's decision.

A. Identifying Information

1) **Date** – May 8, 2017
2) **Principal Investigator** – Sam Feyder PA-S, Bethel University Physician Assistant Program, 2 Pine Tree Drive, Arden Hills, MN 55112, (218)-839-7574, and stf45596@bethel.edu
3) **Co-investigators** – Lindsay Emmerich PA-S, Bethel University Physician Assistant Program, 2 Pine Tree Drive, Arden Hills, MN 55112, (630)-408-2826, and lrb5579@bethel.edu

   Lauren Cooke PA-S, Bethel University Physician Assistant Program, 2 Pine Tree Drive, Arden Hills, MN 55112, (248)-990-1478, and lmc39273@bethel.edu

4) **Project Title** –Attitudes Regarding Physician-Assisted Suicide Among Minnesota Family Medicine Physicians
5) **Key Words** – Physician-assisted suicide, physician-assisted death, death with dignity
6) **Inclusive Dates of Project** – May 8, 2017 - August 1, 2018.
7) **Research Advisor** – Christy Hanson PA-C, Bethel University Physician Assistant Program, 2 Pine Tree Drive, Arden Hills, MN 55112, c-hanson@bethel.edu.

   Dr. Herb Holman MD, Minnesota Academy of Family Physicians, Herbert.A.Holman@lakeview.org.

8) **Funding Agency** – N/A
9) **Investigational Agents** – N/A

B. Participants

1) **Type of Participants** – Practicing Family Medicine Physicians who are members of Minnesota Academy of Family Physicians
2) **Institutional Affiliation** – Minnesota Academy of Family Physicians
3) **Approximate Number of Participants** – 30
4) **How Participants are Chosen** – Researchers first received approval from a family medicine physician, a member of Minnesota Academy of Family Physicians, MAFP, to co-chair their research committee. With the family medicine physician's collaboration, researchers met the criteria to request inclusion of their survey to MAFP members at large. The researchers will receive formal permission from the Minnesota Academy of Family Physicians to survey its members once IRB permission from Bethel University is obtained. This population was selected for two primary reasons. First, family medicine physicians play an important role in the process of PAS, as they are the often the patient's first point of contact in the discussion of end of life issues. Second, current legislation in the United States allows only physicians to prescribe medications for PAS; PAs and NPs cannot.
5) **How Participants are Contacted** – The participants will receive a quarterly Newsflash email from MAFP, which will include the hyperlink to the survey tool. It was thought that because a student-research survey is routinely included in this Newsflash email, members are accustomed to completing student-research surveys.
6) **Inducements** – N/A

7) **Monetary Charges** – N/A

C. Informed Consent – See attached document

D. Abstract and Protocol

1. **Hypothesis and Research Design** – This study will address the following research questions:
    1. Does age of the physician correlate with support for physician-assisted suicide?
    2. Does the diagnosis of the patient correlate with support for physician-assisted suicide?
    3. If a physician believes a patient should have access to physician-assisted suicide, how likely is he or she to prescribe the lethal dose?

    This research is a quantitative cross-sectional study of the attitudes of physicians towards physician-assisted suicide. This research will gather numerical data to quantify the number of practicing family medicine physicians who find PAS permissible, as well as those who do not with regard to three different patient cases.

1) **Protocol** – We received temporary permission from MAFP to distribute our survey to its members pending Bethel's IRB approval. We have also completed a formal application to submit to MAFP following approval to pursue this study. A link to the survey will be included in the MAFP Quarterly Newsflash email for MAFP members to complete. An informed consent letter will proceed the survey. We hope to send a reminder email one month after the Quarterly Newsflash email pending MAFP approval. The data will be stored on a password-protected computer owned by the researchers. After completion of this study, the data will be kept on an external storage device locked in the PA program office for a minimum of five years, per securing requirements for Bethel University's Physician Assistant Program.

E. Risks

1) **Privacy** – This survey is anonymous. It will not collect any identifying information about the participant. The electronic data, while being collected and analyzed, will be kept on a password-protected computer owned by the researchers. After completion of this study, the data will be kept on an external storage device locked in the PA program office for a minimum of five years, per securing requirements for Bethel University's Physician Assistant Program.
2) **Physical stimuli** – No known risk identified.
3) **Deprivation** – No known risk identified.
4) **Deception** – No known risk identified.
5) **Sensitive information** – When participants click on the survey hyperlink, they will first be presented with an Informed Consent letter, which will remind the participants that the survey is optional and that it can be discontinued at any time without consequences. The Informed Consent letter will state that the researchers believe there is greater than minimal risk associated with taking this survey, as it includes upsetting and/or distressing emotions and feelings due to the sensitive content of PAS. If the participants experience

anxiety, depression, or suicidal thoughts as a result of this survey, they are advised to call the National Disaster Distress hotline at 1-800-985-5990 or 911.

6) **Offensive materials** – No known risk identified.
7) **Physical exertion** – No known risk identified.

F. Confidentiality – This survey is anonymous. It will not collect any identifying information about the participant. The electronic data, while being collected and analyzed, will be kept on a password-protected computer owned by the researchers. Responses from non-practicing physicians will not be included in the data analysis. After completion of this study, the data will be kept on an external storage device locked in the PA program office for a minimum of five years, per securing requirements for Bethel University's Physician Assistant Program.

G. Signatures – "I certify that the information furnished concerning the procedures to be taken for the protection of human participants is correct. I will seek and obtain prior approval for any substantive modification in the proposal and will report promptly any unexpected or otherwise significant adverse effects in the course of this study."
4/10/17

Researcher: Cooke, Lauren PA-S Date

Researcher: Emmerich, Lindsay PA-S Date

Researcher: Feyder, Sam PA-S Date

Research Chair: Hanson, Christy PA-C Date

Email correspondence with Minnesota Academy of Family Physicians

---------- Forwarded message ----------
From: **Lisa Regehr** <lregehr@mafp.org>
Date: Tue, Nov 15, 2016 at 10:11 AM
Subject: MN Academy of Family Physicians - Request for Research Survey Collaboration
To: "l-naser@bethel.edu" <l-naser@bethel.edu>
Cc: Missy Machkhashvili <missy@mafp.org>, "Maria Huntley, CAE" <mhuntley@mafp.org>

Dear Ms. Naser,

Thank you for contacting us regarding participation by the Minnesota Academy of Family Physicians in your survey on understanding the attitudes of family medicine physicians regarding physician assisted suicide. Your request was reviewed by our Research and Quality Improvement committee on Thursday, November 10. I have attached a copy of our guidelines for research collaboration for your review.

A requirement of collaboration is that one of the investigators on the project must be a member of the Academy of Family Physicians. If you currently have a family physician member involved in the project, or if there is the possibility of including someone, we would be interested in further reviewing the project. The committee agrees that this is an interesting issue.

Please let me know if you have any questions at this time.

- Lisa

Lisa Regehr
Director of Resident & Medical Student Initiatives and Continuing Medical Education Accreditation
Minnesota Academy of Family Physicians
600 S. Hwy. 169, Suite 1680
St. Louis Park, MN 55426
952-224-3875
lisa@mafp.org
www.mafp.org

MINNESOTA ACADEMY OF FAMILY PHYSICIANS

Request for Research Survey Collaboration Inbox x

Lindsay Bartkowiak <lrb55769@bethel.edu> Jan 20
to lregehr

Hi Lisa,

My name is Lindsay Emmerich and I am a PA student at Bethel University. My teacher, Lisa Naser, emailed you previously about the potential for surveying MAFP members for my group's research project. I have read the attachment you included with the guidelines. We do have a MAFP member who has agreed to collaborate with us, Herb Holman. I am wondering if there is an application that I need to fill out in order to move forward. It is my understanding that surveys are included in a quarterly newsletter on a first-come first-serve basis. Am I understanding correctly? Thank you for your time. Look forward to hearing from you!

Sincerely,

Lisa Regehr <lregehr@mafp.org> Jan 20
to me

That's wonderful news, Lindsay! The next step to take is to complete the survey request form attached.

From: Lindsay Bartkowiak [mailto:lrb55769@bethel.edu]
Sent: Friday, January 20, 2017 1:39 PM
To: Lisa Regehr <lregehr@mafp.org>
Subject: Request for Research Survey Collaboration

People (4)
Lisa Regehr
Add to circles
Show details

Permission form from Minnesota Academy of Family Physicians

MAFP Research Survey Request

Please use this form to request to have a link to your research survey placed in the Minnesota Academy of Family Physicians Newsflash Email OR to receive mailing label data for your survey. Please refer to the Guidelines for MAFP Collaboration on Research Projects when considering your request.

Please save this form to your computer, complete, and email as an attachment to lregehr@mafp.org

Topics
Projects should contain original research and be relevant to family medicine. All categories of research will be considered, including practice-based, community-oriented and participatory projects, and descriptive studies. Quality Improvement projects, clinical case presentations, and literature reviews are acceptable *if* they generate original conclusions.

Title of Research Project Attitudes Regarding Physician-Assisted Suicide Among Minnesota Family Medicine Physicians

Researcher Information

Name (include designation, M.D., Ph.D., etc.) Lauren Cooke PA-S, Lindsay Emmerich PA-S, and Sam Feyder PA-S

Email lmc39273@bethel.edu, lrb5579@bethel.edu, and stf45596@bethel.edu

Phone (248)-990-1478, (630)-408-2826, (218)-839-7574

Address 2 Pine Tree Drive, Arden Hills, MN 55112

Other Authors/Investigators (include designation, M.D., Ph.D., etc.) N/A

Objective or Hypothesis This study will address the following research questions:
1. Does age of the physician correlate with support for physician-assisted suicide?
2. Does the diagnosis of the patient correlate with support for physician-assisted suicide?
3. If a physician believes a patient should have access to physician-assisted suicide, how likely is he or she to prescribe the lethal dose?

This research is a quantitative cross-sectional study of the attitudes of physicians towards physician-assisted suicide. This research will gather numerical data to quantify the number of practicing family medicine physicians who find PAS permissible, as well as those who do not with regard to three different patient cases.

Population Practicing Family Medicine Physicians. Our goal is 50 or more participants.

Methodology Survey

IRB Approval ☒ OR **IRB Exemption** ☐

HIPAA Compliance ☒

Mentor(s) Research chair: Christy Hanson PA-C, c-hanson@bethel.edu

Reader and MAFP/ AAFP member: Dr. Herb Holman, Herbert.A.Holman@lakeview.org

Funding Sources N/A

Please attach an example of the survey.

Informed Consent

Dear Minnesota Academy of Family Physicians member,

We are physician assistant students from Bethel University's Physician Assistant Program, conducting research in partial fulfillment of the requirements for a Masters Degree in Physician Assistant Studies. Our study is investigating the attitudes of family medicine physicians on physician-assisted suicide. We hope to learn whether the attitudes of family medicine physicians on physician-assisted suicide change based on the patient's diagnosis.

You were selected as a possible participant in this study because you are a member of MAFP. The student researchers are interested in family medicine, which prompted their choice of participants.

Attached is a survey to gather necessary information to complete the data collection of this research. The survey will take approximately 5-10 minutes to complete. By completing this survey, you are indicating informed consent to participate in this study. Your participation in this study is voluntary and you can withdraw at any time. You are free to omit any question. Your decision whether or not to participate will not affect your future relations with Minnesota Academy of Family Physicians or Bethel University in any way.

We believe there is greater than minimal risk associated with taking this survey; as, it does include sensitive topics and may elicit upsetting and/or distressing thoughts and feelings. If you experience anxiety, depression, or suicidal thoughts as a result of this survey, please call the National Disaster Distress hotline at 1-800-985-5990 or 911.

This is an anonymous survey. No identifying information will be collected from this survey or MAFP.

This research project has been reviewed and approved in accordance with Bethel University's Levels of Review for Research with Humans. If you have any questions about the research and/or research participants' rights or wish to report a research related injury, please contact Sam Feyder PA-S researcher at stf45596@bethel.edu or Christy Hanson PA-C, research chair at c-hanson@bethel.edu.

A copy of this form will be available upon request to Minnesota Academy of Family Physicians.

We understand that you have an extremely busy schedule and your time is limited. Please realize that your participation is vital to the success of this research. The information that you provide is essential to the validity of this study. Thank you in advance for your prompt response to this study. Please complete the survey by October 31, 2017. If you have any questions, please contact Sam Feyder PA-S researcher at stf45596@bethel.edu or Christy Hanson at c-hanson@bethel.edu.

Thank you again for your help.
Sincerely,

Lauren Cooke PA-S
Lindsay Emmerich PA-S
Sam Feyder PA-S

Survey Tool

Please read the following definition before completing the survey.

Physician-assisted suicide (PAS) refers to the prescription of a lethal dose of a drug to prematurely end a patient's life. The patient must be able to ingest the medication him/herself. This does not include a medical professional administering a lethal injection that causes death of a patient.

Age
_____29-40
_____41-50
_____51-60
_____60+

Are you currently a practicing physician?
_____ Yes
_____ No

In what area of medicine do you currently practice?
_____ Family Medicine
_____ Other, please comment _____

Please read the following vignettes and answer the corresponding questions. For the quality of our research, we ask for your full honesty. If this survey becomes distressing, please remember you can discontinue at any time without repercussions.

1. A 70-year old patient with metastatic bone cancer is in excruciating pain. The patient's prognosis is less than 6 months. All palliative care options have failed to control the pain. The patient is well-informed regarding his/her condition and treatment options, including PAS. The patient and his/her family have discussed the options and are requesting a prescription for PAS.

Do you believe this patient should have access to a lethal dose of a drug to prematurely end his or her life (PAS)?
____ Yes
____ No

At the patient's request, how likely would you be to prescribe a lethal dose of a drug to prematurely end this patient's life (PAS)?
_____ Very likely
_____ Likely
_____ Unlikely
_____ Very unlikely

2. A 70-year old patient with a 30-year history of multiple sclerosis is experiencing rapid decline in quality of life. The patient is no longer ambulatory and is fearful of the emanating physical decline associated with MS. The patient's prognosis is less than 6 months. The patient is well-informed regarding his/her condition and treatment options, including PAS. The patient and his/her family have discussed the options and are requesting a prescription for PAS.

Do you believe this patient should have access to a lethal dose of a drug to prematurely end his or her life (PAS)?
____ Yes
____ No

At the patient's request, how likely would you be to prescribe a lethal dose of a drug to prematurely end this patient's life (PAS)?
_____ Very likely
_____ Likely
_____ Unlikely
_____ Very unlikely

3. A 70-year patient was recently diagnosed with an inoperable brain tumor. The patient's prognosis is less than 6 months. The patient is fearful of the mental decline that will likely occur before death. The patient is well-informed regarding his/her condition and treatment options, including PAS. The patient and his/her family have discussed the options and are requesting a prescription for PAS.

Do you believe this patient should have access to a lethal dose of a drug to prematurely end his or her life (PAS)?
____ Yes
____ No

At the patient's request, how likely would you be to prescribe a lethal dose of a drug to prematurely end this patient's life (PAS)?
_____ Very likely
_____ Likely
_____ Unlikely
_____ Very unlikely

Thank you. We appreciate your participation!

APPENDIX G: Bethel University IRB Approval

BETHEL UNIVERSITY

Institutional Review Board
3900 Bethel Drive
PO2322
St. Paul, MN 55112

May 12, 2017

Lindsay Emmerich
Bethel University
St. Paul, MN 55112

Re: Project SP-22-17 Attitudes regarding physician-assisted suicide among MN family medicine physicians

Dear Lindsay,

On May 11, 2017, the Bethel University Institutional Review Board completed the review of your proposed study and approved the above referenced study.

Please note that this approval is limited to the project as described on the most recent Human Subjects Review Form, including email correspondence. Also, please be reminded that it is the responsibility of the investigator(s) to bring to the attention of the IRB any proposed changes in the project or activity plans, and to report to the IRB any unanticipated problems that may affect the welfare of human subjects. Last, the approval is valid until May 11, 2017.

Sincerely,

Peter Jankowski, Ph.D.
Chair, Bethel University IRB