

Article

Religiosity and the Wish of Older Adults for Physician-Assisted Suicide

Sylvie Lapierre ^{1,*}, Dolores Angela Castelli Dransart ², Kim St-Amant ¹, Gabrièle Dubuc ¹,
Maude Houle ¹, Marie-Michelle Lacerte ¹ and Christian Maggiori ²

¹ Department of Psychology, Université du Québec à Trois-Rivières, Trois-Rivières, QC G9A5H7, Canada; kim.st-Amant@uqtr.ca (K.S.-A.); gabriele.dubuc@uqtr.ca (G.D.); maude.houle@uqtr.ca (M.H.); marie-michelle.Lacerte@uqtr.ca (M.-M.L.)

² School of Social Work Fribourg, University of Applied Sciences and Arts Western Switzerland, 1762 Givisiez, Switzerland; Angela.Castelli@hefr.ch (D.A.C.D); Christian.Maggiori@hefr.ch (C.M.)

* Correspondence: sylvie.lapierre@uqtr.ca; Tel.: +1-819-376-5085

Received: 17 December 2017; Accepted: 22 February 2018; Published: 27 February 2018

Abstract: In industrialized countries, population ageing is associated with intense discussions on the issue of dying with dignity. Some countries have legalized assisted suicide and authorized physicians to provide the knowledge and/or means for suffering patients to end their life. The goal of this study was to ascertain if religiosity could be a predicting factor of older adults' wish for physician-assisted suicide (PAS). A sample of 216 men and women over 60 years ($M = 72.5$) answered the following question: "Would you disagree or agree with assisted suicide for yourself if you were very sick and would die in the near future?" They also completed questionnaires on religiosity, ageism and death anxiety. A regression analysis showed that religiosity explained a significant ($F(1211) = 19.62$; $p < 0.001$) proportion (7.7%) of the variance in the wish for PAS (full model $R^2 = 0.17$). Religiosity seems to reduce the likelihood that older adults would ask for PAS if they had a terminal illness, while ageism and death anxiety seemed to have the opposite effect. Health professionals and legislators must be aware that psychosocial and spiritual variables have an important influence on the wish for PAS.

Keywords: assisted suicide; religiosity; older adults; death anxiety; ageism; dying with dignity; end-of-life care

1. Introduction

Palliative care provides patients facing a life-threatening illness with relief from physical symptoms (e.g., pain, nausea), while caring for the emotional, social and spiritual needs of the person. The goal is to improve quality of life until the end, for both patients and their family (World Health Organization 2017). However, in many industrialized countries, the growing number of older adults in the population and the fear of prolonged and futile medical treatment near the end of life recently intensified the debates on the issue of dying with dignity. Therefore, in addition to palliative care, some contemporary end-of-life care might include practices that involve the hastening of death, by providing euthanasia (EU) or physician-assisted suicide (PAS) to mentally competent terminally ill patients whose suffering is unbearable and impossible to treat (Rietjens et al. 2012). With EU, the physician intentionally ends the patient's life, at his/her request, usually by the administration of a lethal drug. With PAS, the physician prescribes or supplies the lethal drug to the patient, at his/her request, but the patient takes the action that will induce his/her own death (Emanuel et al. 2016; Marcoux 2011; Radbruch et al. 2016). It should be mentioned that there are ongoing discussions about the similarities and differences between PAS and unassisted suicide (Leeman 2009; Steck et al. 2016; van Wijngaarden et al. 2014), with some considering PAS as a rational choice (i.e., logical and justified),

while unassisted suicide is often deemed to be a consequence of mental illness. Furthermore, in the case of older adults, some proponents argue that rational suicide is not limited to PAS in terminally ill patients, but can also be seen in mentally competent elderly people (ill or not) who believe their life is now complete and who die by suicide (McCue and Balasubramaniam 2017).

PAS (as defined above) is now legal in 12 regions of the world: The Netherlands, Belgium, Luxemburg, Switzerland and Canada, as well as the American states of Oregon, Washington, Montana, California, Vermont, Colorado and the District of Columbia. In the states of Oregon and Washington, where EU is still illegal, reported cases of PAS represent respectively 0.39% and 0.32% of all deaths, with patients over 65 years comprising 70% of all cases (Emanuel et al. 2016). In Switzerland, records of 1301 suicides, assisted by right-to-die organizations between 2003 and 2008, showed that rates increased exponentially with age from 0.3 per 100,000 person-years in the age group 25–34 to 38.9 among those aged 85 to 94 years (Steck et al. 2014). Results from logistic regressions showed that older adults (65 and over) who died by assisted suicide in Switzerland were more likely to have the following sociodemographic characteristics: living alone, no religious affiliation, higher education and higher socio-economic position, living in urban areas and being female (Steck et al. 2014).

A number of studies looked at the factors (physical, medical, psychological, social and spiritual) associated with the requests or wishes for medically assisted death (EU or PAS, as defined above) in older adults (for a review, see (Castelli Dransart et al. forthcoming)). However, most of them used medical records (Steck et al. 2014), or interviewed physicians (Jansen-van der Weide et al. 2005), probably because the latter have the responsibility of justifying and deciding if the requirements for granting a request are met. Therefore, studies rarely asked the opinion of older adults, especially those living in the community (Lamers and Williams 2016; Malpas et al. 2014).

A growing body of research suggests that religion and spirituality are important resources for older adults facing death and are associated with patients' medical decision making (Cohen et al. 2006; Karches et al. 2012; Koenig 2012; Puchalski 2010). Older patients who reported finding strength and comfort from their spiritual beliefs showed less psychological distress, and 40% spontaneously stated that their faith enabled them to cope with the stress of medical illness. As for end-of-life practices that would hasten death, Bulmer et al. (2017) indicated that higher levels of religiosity (how religious they consider themselves) uniquely predicted lower levels of support for PAS in the USA population (N = 1598; 18 to 96 years, M = 50.95, SD = 16.42). Earlier research has overwhelmingly shown similar results for both religious affiliation and religious commitment in uni- and multivariate analyses of EU or PAS (Buiting et al. 2012; Burdette et al. 2005; Carter et al. 2007; Cohen et al. 2006, 2014; Emanuel et al. 2000; Espino et al. 2010; Gilman et al. 1997; Güell et al. 2015; Mouton et al. 2001; Rathor et al. 2014; Televantos et al. 2013; Tolle et al. 2004; Verbakel and Jaspers 2010). However, studies often use EU and PAS interchangeably and rarely define those concepts for the participants (Marcoux 2011). Also, the term "religiosity" can cover various concepts: religious affiliation, religious commitment, frequency of attendance, religious beliefs and involvement in religious organizations (Worthington et al. 2003).

In Canada, many changes occurred in the last few decades in the religious behavior of its citizens (Pew Research Center 2013; Wilkins-Laflamme 2014; Wilkins-Laflamme 2017). Using data from the 2011 Canadian census, a Pew Research Center report indicated that the number of Canadians with no religious affiliation has been rising (of baby-boomers born between 1946 and 1965, 9% had no religious affiliation in 1981, but 20% in 2011), and self-reported attendance at religious services has been dropping. Eagle (2011) attributed both changes (rise in no affiliation and low attendance) mainly to Catholics, particularly those living in the province of Quebec (where this study was done). In fact, the lowest attendance was found in Quebec, with 11% of the population declaring attending weekly and 47% not at all (Pew Research Center 2013). Quebec has also the lowest share of its population (33.4%) praying/meditating weekly (Wilkins-Laflamme 2014). Meunier and Wilkins-Laflamme (2011) have demonstrated the specificity of the evolution of religiosity in Quebec since the Quiet Revolution (1960–1970; a period of intense socio-political and socio-cultural change in Quebec, characterized by

the secularization of government), especially among baby boomers who wanted to free themselves from the domineering influence of the Catholic Church on issues surrounding morality and sexuality. Before 1970, religion was part of the cultural identity and at the base of the social organization; now, many Quebecers have a negative view of the Catholic Church as an institution, and toward religion in general. Despite this rejection, there is much hesitation in giving up their religious affiliation (Wilkins-Laflamme 2017). This ambivalence is shown by the answers of 1000 participants in a web survey (Radio-Canada/CROP 2014): although 75% of the Quebec population identifies as Catholic, 59% consider themselves Catholic because they were baptized, 35% because their parents are Catholic and only 32% because of their faith. It should also be mentioned that, among those who never attend mass, 44.2% said that their religious/spiritual convictions are important or very important in their daily life (Meunier and Wilkins-Laflamme 2011).

With all these changes experienced by Quebec's society and the recent legalization of euthanasia, called medically-assisted death in Quebec, it would be interesting to look at the relationship between religiosity and older adults' wish for PAS. In Canada, EU and PAS were legalized in June 2016. In the province of Quebec, medically-assisted death (the bill avoids the term EU) was legalized earlier, in December 2015, but PAS is still illegal (Gouvernement du Quebec 2017). The criteria required to be granted medical assistance in dying in Quebec are to be suffering from a serious, incurable illness in an advanced state of irreversible decline and to be at the end of life.

There are other psychosocial reasons that could explain the preference for PAS as a possible future end-of-life intervention. Two of these variables have never, to our knowledge, been studied in an aged population, namely attitudes toward death and toward aging, although perceptions of both life transitions have changed remarkably in Western societies in the last decades (Kastenbaum 2000). Support for PAS has been positively associated with fears and anxiety about life's end in some cultures, for example among Filipinos living in Hawaii (Braun et al. 2001). Similarly, concerns about poor quality of life in old age, fear of dependency, fear of being a burden to others, loss of self-identity, fear of future physical pain and suffering, and fear of loneliness and abandonment, are often mentioned as motives underlying suicidal ideations (Van Orden et al. 2010) and requests for hastened death (McPherson et al. 2007), especially when there is no hope for future improvement. Therefore, it seemed interesting to look at the influence of death anxiety and ageism, defined here as a negative perception of aging and old age (Lagace et al. 2015), on the wish for PAS.

Previous studies showed some gender differences in the endorsement or use of PAS, with men being more in favour of PAS when alive (Espino et al. 2010) and women dying more by PAS (Steck et al. 2014, 2016). Therefore, this variable was also investigated.

The present paper is part of a larger study on older adults' endorsement of the administration of three clearly defined end-of-life practices (EU, PAS and treatment refusal) if they were facing various hypothetical medical situations. The study presented here is looking at older adults' wish to get PAS, if they were facing an incurable terminal disease, as well as its relations with religiosity when controlling for death anxiety and ageism.

The goal of the study was to test the following hypotheses. In the hypothetical situation of an incurable terminal illness: (1) higher levels of religiosity will be negatively associated with the wish to have PAS, (2) death anxiety, as well as ageism, will be positively associated with the endorsement of PAS and (3) women will be more likely to wish for PAS than men.

2. Method

2.1. Participants

Participants were recruited through a short article in a local newspaper of the city of Trois-Rivieres (Quebec, Canada; 136,000 inhabitants, 24% being 65 years and over). The article briefly described the study and asked older adults, aged 60 and over, if they would be interested in sharing their opinion about end-of-life practices. This age limit was set because we wanted to have a sub-group of baby

boomers (60 to 70 years), since their generation experienced major societal and religious changes, and to compare their attitude with that of adults over 70 years. Age was the only inclusion and exclusion criteria. This study received the approval of the Ethics Committee for Research Involving Human Participants of the University of Quebec in Trois-Rivieres.¹

This convenience sample of 216 French Canadians included 126 women (58.6%) and 89 men² (41.4%), aged between 60 and 95 years ($M = 72.5$; $SD = 7.0$). The sample included 100 persons born between 1946 and 1956 (baby boomers). A large proportion of participants were married (58.6%). The average level of education was 12.9 years ($SD = 4.4$) and most (55.1%) described their health condition as very good or excellent (only 3.2% described their health as bad or very bad). Also, the majority (94.5%) were satisfied or very satisfied with their present life. This sample seemed to be experiencing favorable life conditions.

2.2. Measures

Participants were given the following definition for PAS: “When a doctor is helping a patient to deliberately complete suicide by providing³ drugs for self-administration or by giving information on how to proceed (or both)”. They then answered the following question (Webster 2004) on a six-point Likert scale ranging from one (completely disagree) to six (completely agree): “Would you disagree or agree with PAS for yourself if you were very sick and would die in the near future because of this illness?”

They also completed the *Role of Religion in Your Life*, a questionnaire conceived by Webster (2004) for her study on the attitudes toward EU. It was translated into French by the research team. This seven-item scale measures self-perception of religious commitment (the importance of religion in one’s life) or intrapersonal religiosity, defined by Worthington et al. (2003, p. 85) as “the degree to which a person adheres to his/her religious values, beliefs, and practices, and uses them in daily living”. Participants expressed their agreement with each of the statements on a six-point Likert scale ranging from one (completely disagree) to six (completely agree). “Praying is a very important priority in my life” is an example of item from this questionnaire. A higher score indicates high religious commitment. The internal consistency was 0.97 with the present sample of older adults. It should be noted that the present study did not cover precise religious beliefs, nor interpersonal religiosity (involvement with a religious community or organization), nor religious affiliation, since the majority of French Canadians are Catholics.

The *Level of Death Anxiety* was also conceived by Webster (2004). For our purpose, we only used the items that explicitly measured emotional arousal or anxiety when considering different aspects of one’s own dying process (e.g., physical degeneration or pain), leaving out the items that evaluated participants’ perception of themselves after death (e.g., being totally immobile after death, never thinking or feeling again). Participants evaluated their level of anxiety on a six-point Likert scale ranging from one (not at all anxious) to six (very anxious) instead of the nine-point scale used by Webster (2004) in order to have more consistent response choices from one questionnaire to another. It was adapted and translated into French by the research team. A high score is related to a high level of anxiety toward the dying process. The internal consistency was 0.90 in the present study.

Finally, the *Endorsement of Age Stereotypes* is a short nine-item French scale measuring internalized ageism (Lagace et al. 2015). Two items were related to developmental gains in old age (e.g., “Older people are equally as active as younger people (reverse-scored).”), five items described developmental losses (e.g., “Older people are often depressed.”), and two items measured the perception of older people as a social burden (e.g., “Older people are too expensive for public budgets.”). Participants

¹ Certificate approval code: CER-16-229-07.21.

² One missing data for gender.

³ Words were underlined in the definition given to the participants.

expressed their level of agreement on a five-point Likert scale ranging from one (completely disagree) to five (completely agree). The Cronbach alpha in a sample of 172 Canadian seniors (Lagace et al. 2015) aged 50 years and over was .68 (same in the present sample). A high score indicates a high endorsement of ageist stereotypes.

3. Results

To verify the hypothesis, chi-square tests for independence and Pearson correlations were conducted to assess the relationships between the wish for PAS and the following variables: gender, civil status, age, religiosity, death anxiety and ageism. Also, a four-step multiple linear regression was performed to investigate whether or not religiosity, death anxiety and ageism predicted the wish for PAS, when controlling for the sociodemographic characteristics of the participants.

From the 223 older adults who participated in the study on medically assisted death, 216 answered the question about their level of agreement with PAS for themselves, if they would face the following hypothetical situation: very sick and would die in the near future. Table 1 presents the sociodemographic characteristics of the sample, as well as the mean scores for the wish for PAS and religiosity, by age, gender, civil status and level of education.

Table 1. Mean scores and standard deviations for the attitude toward PAS (Physician assisted suicide) and for religiosity according to various sociodemographic characteristics (N = 216).

Variables	N	PAS		Religiosity	
		Mean	SD	Mean	SD
Age					
60–70	100	4.32	2.03	2.97	1.66
71–80	82	4.13	2.09	3.63	1.71
80–95	34	3.47	2.05	4.42	1.70
Gender					
Male	89	4.35	2.01	3.19	1.74
Female	126	3.94	2.11	3.64	1.75
Civil status					
Married	126	4.39	1.90	3.19	1.66
Div./Sep.	28	3.25	2.30	3.48	1.84
Single	14	3.86	2.57	4.12	2.10
Widowed	47	3.94	2.10	3.96	1.72
Education					
4–12 years	101	4.22	2.02	4.04	1.60
13–22 years	102	4.06	2.10	2.89	1.71
Global Score		4.12	2.07	3.45	1.76

It should be mentioned that there was a significant difference in marital status between age groups ($X^2(3, N = 215) = 17.73; p < 0.001$): Among the baby boomers (N = 100), the majority (71%) were married, while 47.8% were married among those 71 years and over (N = 116). Education was negatively correlated with religiosity ($r = -0.36; p < 0.001$) and there was also a significant difference in religiosity ($t(213) = -2.71; p < 0.01$) between those with a partner (M = 3.19) and those without (M = 3.84). In addition, there was a significant negative correlation between age and education ($r = -0.25; p < 0.001$), the oldest having a lower level of education, which is representative of the elderly population in Quebec.

Participants expressed their agreement with PAS on a scale of one (disagreement) to six (agreement). When responses one to three were grouped together and classified as opposition to PAS, and four to six as in favor of this medical practice, we found that 35.6% would refuse and that the majority (64.4%) would agree to choose PAS if they were very sick and would die in the near future. It seems that, in general, participants would opt for this end-of-life practice if they were in this situation.

There was no relation between the wish for PAS and gender, or with the level of education. However, married participants were significantly ($t(169.6) = 2.34; p = 0.02$) more favorable toward PAS ($M = 4.39$) than participants without a partner ($M = 3.71$). As shown in Table 1, baby boomers seemed to be more favorable to PAS, but the correlation with age was very weak (see Table 2).

Table 2. Zero-order correlations between attitude toward PAS, age, religiosity, death anxiety and ageism ($N = 216$).

Variable	Age	Religiosity	Death Anxiety	Ageism
PAS attitude	−0.12 *	−0.27 ***	0.17 **	0.26 ***
Age		0.36 ***	−0.19 **	0.06
Religiosity			0.01	0.10
Death anxiety				0.14 *

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Age was positively correlated with religiosity and negatively with death anxiety, while the latter showed a positive correlation with internalized ageism. In addition, as predicted, higher levels of religiosity were negatively associated with the wish to have PAS, while death anxiety, as well as internalized ageism, were positively associated with a favorable wish for PAS. Although significant, all these correlations were weak.

Finally, a four-step multiple linear regression analysis was conducted to predict participants' inclination toward PAS with the following predictors: sociodemographic variables, death anxiety, ageism and religiosity. In Step 1, four sociodemographic variables were entered simultaneously in the model: age, civil status (married or not), years of education and gender. Death anxiety was entered in Step 2, ageism was added in Step 3, and finally religiosity was entered in Step 4.

As shown in Table 3, sociodemographic variables were not associated with the wish for PAS in the multivariate model and the amount of variance explained (3%) was not significant ($F(4, 197) = 1.53; p = 0.20$). When added in Step 2, anxiety about the dying process explained a significant proportion of the variance (1.9%; $p = 0.05$) in the wish for PAS. However, it did not make a significant ($\beta = 0.12; p = 0.076$) contribution to the overall prediction equation when the other variables were entered in the model. Finally, internalized ageism and religiosity showed strong unique contributions to the wish for PAS. These results indicated that older adults who had a negative attitude toward aging were more likely to agree with PAS, and that internalized ageism explained a significant ($F(1, 194) = 16.45; p < 0.001$) proportion (5%) of the variance of PAS. Moreover, older adults who were religiously committed, that is, giving importance to their religious beliefs in their daily life, were more likely to disagree with PAS for themselves if they were very ill and would die in the near future. Religiosity explained an added significant ($F(1, 194) = 16.45; p < 0.001$) proportion (7%) of the variance in the wish for PAS. The overall model was statistically significant and was able to explain 17% of the variance in the inclination toward PAS.

Table 3. Regression analysis of overall model for variables predicting the wish for PAS ($N = 216$).

Variable	B	β	t	ΔR^2
Step 1				0.030
Sociodemographic				
Age	0.01	0.04	0.47	
Civil status	−0.43	−0.10	−1.45	
Education	−0.34	−0.08	−1.15	
Gender	−0.11	−0.03	−0.39	
Step 2 Death anxiety	0.19	0.12	1.78 ^(0.076)	0.019 *
Step 3 Ageism	0.99	0.25	3.65 ***	0.050 ***
Step 4 Religiosity	−0.35	−0.30	−4.06 ***	0.070 ***
Constant	1.354			

Note. Overall model: $R^2 = 0.169; F(7, 194) = 5.64; p < 0.001$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

4. Discussion

The goal of this article was to explore the wish for PAS among older adults living in the community, and to ascertain if religiosity, death anxiety, ageism and gender could be predicting factors of their preference.

Our research revealed that two thirds (64.4%) of participants would agree to PAS (a proportion lower than the 74.5% of our participants that would agree with EU—data not mentioned earlier), if they were terminally ill. This proportion is also lower than that obtained in a previous survey (Ipsos Reid 2014), which revealed that 85% of Canadians, aged 55 and over, believed a doctor should be able to provide any type of assisted dying, and that 76% of the total sample (18 years and over) was in favour of PAS (no data by age group). Lower rates of death by PAS, compared to EU, were also observed in the Netherlands in 1990, 1995 and 2001 (Onwuteaka-Philipsen et al. 2003), indicating that people who request an assisted death prefer EU over PAS, probably because the physician is in charge for terminating the patient's life. Patient autonomy and involvement are greater in PAS than in EU. Therefore, the degree of involvement of everyone concerned, including family members, might influence the preferences of older adults about end-of-life practices (Steinhauser et al. 2000). Perceived rationality of the decision, competency of the requester, consequences on close relatives, and ambivalence about the decision (Andriessen et al. 2017; Leeman 2009; McCue and Balasubramaniam 2017; van Wijngaarden et al. 2014), are common themes in the study of both PAS and suicide. However, research comparing these latter concepts is rare, especially in older adults (Steck et al. 2016).

Older adults who gave importance to religious values in their daily life seem more likely to disagree with PAS for themselves. This finding supports previous research showing that religion or spirituality is associated with a lower wish for hastened death, whether by EU, PAS or even suicide (Buiting et al. 2012; Burdette et al. 2005; Carter et al. 2007; Cohen et al. 2006, 2014; Emanuel et al. 2000; Espino et al. 2010; Gilman et al. 1997; Güell et al. 2015; Mellqvist Fässberg et al. 2012; Mouton et al. 2001; Rathor et al. 2014; Televantos et al. 2013; Tolle et al. 2004; Verbakel and Jaspers 2010). In the current study, religiosity referred to the concept of religious commitment, and not to religious affiliation, beliefs or involvement. Results might be different when taking into account these latter notions (Worthington et al. 2003). Also, in the present study, there was no correlation between religious commitment and death anxiety. Coursey et al. (2013) suggested that religious commitment could influence an individual's sense of personal agency, for example increasing the ability to relinquish personal control as an acceptance of the natural process of death or of "God's will". Therefore it would be interesting, in future research with older adults, to look at the mediating role of self-determination, desire for control or locus of control on their wish for PAS, since the right to make one's decision about end-of-life care is considered among the general population to be an essential feature of a good death (Rietjens et al. 2012).

Furthermore, our research confirmed the hypothesis that internalized ageism would be positively associated with the wish for PAS. A negative attitude toward old age significantly contributed to the endorsement of PAS for oneself, even when sociodemographic variables, religiosity and death anxiety were controlled for. This result supports qualitative studies that found that healthy older adults who supported EU or PAS considered these end-of-life practices as a way to avoid anticipated dependency and becoming a burden to their family or society (Lamers and Williams 2016; Malpas et al. 2012). Some authors have suggested that the societal discourse about the increasing burden of ageing on care and pensions costs might be internalized by older adults who then behave accordingly, choosing a premature death as a preferable end-of-life option, when someone is considered to be or considers themselves to no longer be a useful or valuable member of society (Lamers and Williams 2016; Van Brussel et al. 2014). In this context, the danger of the "slippery slope" (pressure on vulnerable elderly persons to opt for or accept hastened death), which was feared by opponents of the legalization of EU or PAS (Malpas et al. 2014), might come from the negative societal discourse regarding aging and older adults. Media coverage about medically-assisted death (Van Brussel et al. 2014),

as well as negative personal experiences with the health care system or with the decline and dying process of relatives or friends, might also influence older adults' wish for PAS (Malpas et al. 2012; Malpas et al. 2014) and should therefore be examined in future research.

In the present study, no relation between older adults' wish for PAS and gender was found. This finding is inconsistent with those in a longitudinal study by Steck et al. (2016): data for those aged 65 and over indicated that women were 1.5 times more likely to die by assisted suicide than men, while the rate of unassisted suicides in men (48.2) was almost four times that of women (12.2). However, context and actual underlying diseases, whether physical or mental, might explain these differences. In fact, when Steck et al. (2016) restricted their analysis to deaths typically associated with terminal illness, the difference in the rate of suicide between men and women was substantially reduced, suggesting that among those facing end-of-life issues, the prevalence of suicidal intentions is similar among women and men, although women were more likely to choose assisted suicide than men.

The strengths of this study lie in the clear definitions that were provided to the participants for each end-of-life practice addressed in the research: EU, PAS and treatment refusal. This is extremely important since there is inaccurate knowledge about these concepts, especially among laypersons, who appear to be confused about the difference between EU, treatment withdrawal and PAS, as well as between PAS and suicide (Lamers and Williams 2016; Marcoux 2011). For example, many persons consider PAS (71.9%), withholding (38%) or withdrawing (66%) life-sustaining treatment to be EU (Marcoux 2011). Therefore, much caution is needed in the interpretation of public opinion polls and studies that show increasing support for PAS and EU. It is possible that the popularity of EU and PAS reflects participants' legitimate concerns and desire for a good death, which might be perceived as inaccessible to them, since it was estimated that only 16 to 30% of Canadians have access to palliative care (Marcoux 2011).

This study does have some limitations. The response rate was low, although the convenience sample allowed consistent analyses. Participants were recruited in one geographical area, through a newspaper advertisement, and presented homogenous characteristics, which limited the generalizability of the findings. They were educated, healthy, satisfied with their life and described their experience with dying family members as relatively positive. It would be interesting to see how religiosity, internalized ageism and death anxiety influence opinion regarding PAS among older people from lower educational and socioeconomic status, with poor health or who witnessed adverse situations in the dying process of their peers. In addition, since the participants imagined themselves in hypothetical situations, the study does not provide information on their general opinion about PAS. Moreover, there might be important differences in the choice they would make if actually confronted with an incurable disease. Even if intention usually predicts action (Ajzen 1985), it is possible that participants who are now healthy and living in favorable conditions might change their opinion in the future, since there is a relatively high frequency of change in the desire for a hastened death, even in a patient's last weeks of life (Rosenfeld et al. 2014). However, among older adults, Bolt et al. (2016) found that 87% of those who had an advanced directive for EU remained stable in their preference three months before their death, although only 47% made a formal request.

The present research gave older adults living in the community the opportunity to express their opinion about PAS in an anonymous postal survey that probably reduced the influence of social desirability. Older adults are rarely asked about their preferences for particular end-of-life practices, although most will have to make decisions concerning these issues in the future.

In conclusion, older adults' preferences with regard to PAS are likely to be influenced by a variety of factors pertaining to several dimensions (health, social, relational, spiritual, existential). Health professionals and legislators should be aware of the complexity of the issues related to end-of-life decisions and take into account, as the findings of the study suggest, that psychosocial and spiritual variables are as important as physical and medical variables for the wish, and probably also the request, for PAS. Future research should thus widen the field of investigation to variables that encompass and

address issues pertaining not only to health issues, self-determination or personal preferences, but also to relational and social issues such as the potential influence of the negative societal discourse on ageing, and the opinion of others (family, peers and professionals) regarding assisted suicide, on the older adult who thinks about ways to die with dignity.

Author Contributions: Sylvie Lapierre and Marie-Michelle Lacerte conceived and designed the study; Kim St-Amant, Maude Houle and Marie-Michelle Lacerte recruited and interviewed the participants; Sylvie Lapierre, Kim St-Amant and Marie-Michelle Lacerte analyzed the data; Dolores Angela Castelli Dransart, Christian Maggiori and Gabrièle Dubuc contributed to the material and to the discussion of the paper; Sylvie Lapierre, Kim St-Amant and Gabrièle Dubuc wrote the introduction, methods and results sections.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Ajzen, Icek. 1985. From Intentions to Actions: A Theory of Planned Behavior. In *Action Control: From Cognition to Behavior*. Edited by Julius Kuhl and Jürgen Beckmann. New York: Springer-Verlag, pp. 11–39.
- Andriessen, Karl, Karolina Kryszynska, and Onja T. Grad. 2017. *Postvention in Action: The International Handbook of Suicide Bereavement Support*. Toronto: Hogrefe.
- Bolt, Eva, H. Roeline W. Pasman, Dorly J. H. Deeg, and Bregje D. Onwuteaka-Philipsen. 2016. From Advance Euthanasia Directive to Euthanasia: Stable Preference in Older People? *Journal of the American Geriatrics Society* 64: 1628–33. [[CrossRef](#)] [[PubMed](#)]
- Braun, Kathryn L., Virginia M. Tanji, and Ronald Heck. 2001. Support for Physician-Assisted Suicide: Exploring the Impact of Ethnicity and Attitudes toward Planning for Death. *The Gerontologist* 41: 51–60. [[CrossRef](#)] [[PubMed](#)]
- Buiting, Hilde M., Dorly J. H. Deeg, Dirk L. Knol, Jochen P. Ziegelmann, H. Roeline W. Pasman, Guy A. M. Widdershoven, and Bregje D. Onwuteaka-Philipsen. 2012. Older Peoples' Attitudes towards Euthanasia and an End-of-Life Pill in The Netherlands: 2001–2009. *Journal of Medical Ethics: Journal of the Institute of Medical Ethics* 38: 267–73. [[CrossRef](#)] [[PubMed](#)]
- Bulmer, Maria, Jan R. Böhnke, and Gary J. Lewis. 2017. Predicting Moral Sentiment Towards Physician-Assisted Suicide: The Role of Religion, Conservatism, Authoritarianism, and Big Five Personality. *Personality and Individual Differences* 105: 244–51. [[CrossRef](#)]
- Burdette, Amy M., Terrence D. Hill, and Benjamin E. Moulton. 2005. Religion and Attitudes toward Physician Assisted-Suicide and Terminal Palliative Care. *Journal of the Scientific Study of Religion* 44: 79–93. [[CrossRef](#)]
- Carter, Gregory L., Kerrie A. Clover, Lynne Parkinson, K. Rainbird, Ian Kerridge, Peter J. Ravenscroft, Jamie D. Cavenagh, and Jack J. McPhee. 2007. Mental Health and other Clinical Correlates of Euthanasia Attitudes in an Australian Outpatient Cancer Population. *Psycho-Oncology* 16: 295–303. [[CrossRef](#)]
- Castelli Dransart, Dolores Angela, Lapierre Sylvie, and International Research Group on Suicide in Older Adults. Forthcoming. Systematic Review of the Predictors of the Request for Euthanasia or Assisted-Suicide by Older Adults. Working paper, International Research Group on Suicide in Older Adults, Givisiez, Switzerland.
- Cohen, Joachim, Isabelle Marcoux, Johan Bilsen, Patrick Deboosere, Gerrit van der Wal, and Luc Deliens. 2006. European Public Acceptance of Euthanasia: Socio-demographic and Cultural Factors Associated with the Acceptance of Euthanasia in 33 European Countries. *Social Science & Medicine* 63: 743–56.
- Cohen, Joachim, Paul Van Landeghem, Nico Carpentier, and Luc Deliens. 2014. Public Acceptance of Euthanasia in Europe: A Survey Study in 47 Countries. *International Journal of Public Health* 59: 143–56. [[CrossRef](#)] [[PubMed](#)]
- Coursey, Lauren E., Jared B. Kenworthy, and Jennifer R. Jones. 2013. A Meta-Analysis of the Relationship between Intrinsic Religiosity and Locus of Control. *Archiv Für Religionspsychologie/Archive for the Psychology of Religions* 35: 347–68. [[CrossRef](#)]
- Eagle, Dave E. 2011. Changing Patterns of Attendance at Religious Services in Canada, 1986–2008. *Journal for the Scientific Study of Religion* 50: 187–200. [[CrossRef](#)]
- Emanuel, Ezekiel J., Diane L. Fairclough, and Linda L. Emanuel. 2000. Attitudes and Desires Related to Euthanasia and Physician-Assisted Suicide Among Terminally Ill Patients and Their Caregivers. *JAMA* 284: 2460–68. [[CrossRef](#)] [[PubMed](#)]

- Emanuel, Ezekiel J., Bregje D. Onwuteaka-Philipsen, John W. Urwin, and Joachim Cohen. 2016. Attitudes and Practices of Euthanasia and Physician-Assisted Suicide in the United States, Canada, and Europe. *JAMA* 316: 79–90. [CrossRef] [PubMed]
- Espino, David V., R. Lillianne Macias, Robert C. Wood, Johanna Becho, Melissa Talamantes, M. Rosina Finley, Arthur E. Hernandez, and Rubén Martínez. 2010. Physician-Assisted Suicide Attitudes of Older Mexican-American and Non-Hispanic White Adults: Does Ethnicity Make a Difference? *Journal of the American Geriatrics Society* 58: 1370–75. [CrossRef] [PubMed]
- Gilman, Patricia Ann, Lex L. Merrill, and Jennifer Lea Reid. 1997. Attitudes toward Euthanasia. *Perceptual and Motor Skills* 84: 317–18. [CrossRef] [PubMed]
- Gouvernement du Quebec. 2017. Medical Aid in Dying. Available online: <http://sante.gouv.qc.ca/en/programmes-et-mesures-daide/aide-medicale-a-mourir/> (accessed on 10 December 2017).
- Güell, Ernest, Adelaida Ramos, Tania Zertuche, and Antonio Pascual. 2015. Verbalized Desire for Death or Euthanasia in Advanced Cancer Patients Receiving Palliative Care. *Palliative & Supportive Care* 13: 295–303. [CrossRef]
- Ipsos Reid. 2014. Most (84%) Canadians Believe a Doctor Should be Able to Assist Someone Who is Terminally Ill and Suffering Unbearably to End their Life. Available online: <https://www.ipsos.com/sites/default/files/publication/2014--10/6626.pdf> (accessed on 10 December 2017).
- Jansen-van der Weide, Marijke C., Bregje D. Onwuteaka-Philipsen, and Gerrit van der Wal. 2005. Granted, Undecided, Withdrawn, and Refused Requests for Euthanasia and Physician-Assisted Suicide. *Archives of Internal Medicine* 165: 1698–704. [CrossRef] [PubMed]
- Karches, Kyle E., Grace S. Chung, Vineet Arora, David O. Meltzer, and Farr A. Curlin. 2012. Religiosity, Spirituality, and End-of-Life Planning: A Single-Site Survey of Medical Inpatients. *Journal of Pain and Symptom Management* 44: 843–51. [CrossRef] [PubMed]
- Kastenbaum, Robert. 2000. Death Attitudes and Aging in the 21st Century. In *Death Attitudes and the Older Adult: Theories, Concepts, and Applications*. Edited by Adrian Tomer. New York: Brunner-Routledge, pp. 257–80.
- Koenig, Harold G. 2012. Religion, Spirituality, and Health: The Research and Clinical Implications. *ISRN Psychiatry* 2012: 278730. [CrossRef] [PubMed]
- Lagace, Martine, Houssein Charmarkeh, Joelle Laplante, and Annick Tanguay. 2015. How Ageism Contributes to the Second-Level Digital Divide: The Case of Canadian Seniors. *Journal of Technologies & Human Usability* 11: 1–13.
- Lamers, Caroline P. T., and Rebecca R. Williams. 2016. Older People's Discourses about Euthanasia and Assisted Suicide: A Foucauldian Exploration. *Gerontologist* 56: 1072–81. [CrossRef] [PubMed]
- Leeman, Cavin P. 2009. Distinguishing Among Irrational Suicide and Other Forms of Hastened Death: Implications for Clinical Practice. *Psychosomatics: Journal of Consultation and Liaison Psychiatry* 50: 185–91. [CrossRef] [PubMed]
- Malpas, Phillipa J., Kay Mitchell, and Malcolm H. Johnson. 2012. I Wouldn't Want to Become a Nuisance under any Circumstances. A Qualitative Study of the Reasons some Healthy Older Individuals Support Medical Practices that Hasten Death. *The New Zealand Medical Journal* 125: 9–19. [PubMed]
- Malpas, Phillipa J., Maria K. R. Wilson, Nicola Rae, and Malcolm Johnson. 2014. Why do Older People Oppose Physician-Assisted Dying? A Qualitative Study. *Palliative Medicine* 28: 353–59. [CrossRef] [PubMed]
- Marcoux, I. 2011. Euthanasia: A Confounding and Intricate Issue. In *The Good Death: Controversy in Humans and Animals*. Edited by Josef Kure. Rijeka: InTechOpen, pp. 45–62. Available online: <https://www.intechopen.com/books/euthanasia-the-good-death-controversy-in-humans-and-animals/euthanasia-a-confounding-and-intricate-issue> (accessed on 10 December 2017).
- McCue, Robert E., and Meera Balasubramaniam. 2017. *Rational Suicide in the Elderly: Clinical, Ethical, and Sociocultural Aspects*. Cham: Springer International Publishing. [CrossRef]
- McPherson, Christine J., Keitn G. Wilson, and Mary A. Murray. 2007. Feeling like a Burden to Others: A Systematic Review Focusing on the End of Life. *Palliative Medicine* 21: 115–28. [CrossRef] [PubMed]
- Mellqvist Fässberg, Madeleine, Kimberly Van Orden, Paul Duberstein, Annette Erlangsen, Sylvie Lapierre, Ehud Bodner, Silvia Sara Canetto, Diego De Leo, Brian Draper, Katalin Szanto, and et al. 2012. A Systematic Review of Social Factors and Suicidal Behavior in Older Adulthood. *International Journal of Environmental Research and Public Health* 9: 722–45.

- Meunier, É.-Martin, and Sarah Wilkins-Laflamme. 2011. Sécularisation, Catholicisme et Transformation du Régime de Religiosité au Québec. Étude Comparative avec le Catholicisme au Canada (1968–2007). [Secularization, Catholicism, and Transformation of the Religious Regime in Québec. Comparative Study with the Catholicism of the Rest of Canada (1968–2007)]. *Recherches Sociographiques* 52(3): 683–729. [CrossRef]
- Mouton, Charles P., David V. Espino, Yolanda Esparza, and Toni P. Miles. 2001. Attitudes toward Assisted Suicide among Community-Dwelling Mexican Americans. *Clinical Gerontologist* 22: 81–92. [CrossRef]
- Onwuteaka-Philipsen, Bregje D., Agnes van der Heide, Dirk Koper, Ingeborg Keij-Deerenberg, Judith A. C. Rietjens, Mette L. Rurup, Paul J. van der Maas, Astrid M Vrakking, Jean Jacques Georges, Martien T Muller, and et al. 2003. Euthanasia and Other End-of-Life Decisions in the Netherlands in 1990, 1995, and 2001. *Lancet* 362: 395–99. [CrossRef]
- Pew Research Center. 2013. Canada's Changing Religious Landscape. Available online: <http://www.pewforum.org/2013/06/27/canadas-changing-religious-landscape/> (accessed on 10 December 2017).
- Puchalski, Christina M. 2010. Religion, medicine and spirituality: What we know, what we don't know and what we do. *Asian Pacific Journal of Cancer Prevention* 11 S1: 45–49.
- Radbruch, Lukas, Carlo Leget, Patrick Bahr, Christof Müller-Busch, John Ellershaw, Franco de Conno, and Paul Vanden Berghe. 2016. Euthanasia and Physician-Assisted Suicide: A White Paper from the European Association for Palliative Care. *Palliative Medicine* 30: 104–16. [CrossRef] [PubMed]
- Radio-Canada/CROP Survey. 2014. Les Québécois Sont-Ils Sans Religion? [Are Quebecers Without Religion?]. Available online: http://ici.radio-canada.ca/emissions/second_regard/2013--2014/fichiers/sondage-sans-religion.pdf (accessed on 10 December 2017).
- Rathor, Mohammad, Mohammad Fauzi Abdul Rani, Mohammad Arif Shahar, A. Rehman Jamalludin, Shahrin Tarmizi Bin Che Abdullah, Ahmad Marzuki Bin Omar, and Azarisman Shah Bin Mohamad Shah. 2014. Attitudes toward Euthanasia and Related Issues among Physicians and Patients in a Multi-Cultural Society of Malaysia. *Journal of Family Medicine and Primary Care* 3: 230–37. [CrossRef] [PubMed]
- Rietjens, Judith A. C., Reginald Deschepper, Roeline Pasman, and Luc Deliens. 2012. Medical End-of-Life Decisions: Does its Use Differ in Vulnerable Patient Groups? A Systematic Review and Meta-Analysis. *Social Science & Medicine* 74: 1282–87. [CrossRef]
- Rosenfeld, Barry, Hayley Pessin, Allison Marziliano, Coleen Jacobson, Brooke Sorger, Jennifer Abbey, Megan Olden, Robert Brescia, and William Breitbart. 2014. Does Desire for Hastened Death Change in Terminally Ill Cancer Patients? *Social Science & Medicine* 111: 35–40.
- Steck, Nicole, Christoph Junker, Maud Maessen, Thomas Reisch, Marcel Zwahlen, and Matthias Egger. 2014. Suicide Assisted by Right-to-Die Associations: A Population Based Cohort Study. *International Journal of Epidemiology* 43: 614–22. [CrossRef] [PubMed]
- Steck, Nicole, Matthias Egger, and Marcel Zwahlen. 2016. Assisted and Unassisted Suicide in Men and Women: Longitudinal Study of the Swiss Population. *The British Journal of Psychiatry* 208: 484–90. [CrossRef] [PubMed]
- Steinhauser, Karen E., N. A. Christakis, E. C. Clipp, M. McNeilly, L. McIntyre, and J. A. Tulsky. 2000. Factors Considered Important at the End of Life by Patients, Family, Physicians, and Other Care Providers. *JAMA* 284: 2476–82. [CrossRef] [PubMed]
- Televantos, Anastasios, Michael A. Talias, Marianna Charalambous, and Elpidoforos S. Soteriades. 2013. Attitudes towards Euthanasia in Severely Ill and Dementia Patients and Cremation in Cyprus: A Population-Based Survey. *BMC Public Health* 13: 878. [CrossRef] [PubMed]
- Tolle, Susan W., Virginia P. Tilden, Linda L. Drach, Erik K. Fromme, Nancy A. Perrin, and Katrina Hedberg. 2004. Characteristics and Proportion of Dying Oregonians who Personally Consider Physician-Assisted Suicide. *Journal of Clinical Ethics* 15: 111–18. [PubMed]
- Van Brussel, Leen, Paul Van Landeghem, and Joachim Cohen. 2014. Media Coverage of Medical Decision Making at the End of Life: A Belgian Case Study. *Death Studies* 38: 125–35. [CrossRef] [PubMed]
- Van Orden, Kimberly A., T. K. Witte, K. C. Cukrowicz, S. R. Braithwaite, E. A. Selby, and T. E. Joiner Jr. 2010. The Interpersonal Theory of Suicide. *Psychological Review* 117: 575–600. [CrossRef] [PubMed]
- van Wijngaarden, Els, Carlo Leget, and Anne Goossensen. 2014. Experiences and Motivations Underlying Wishes to Die in Older People who are Tired of Living: A Research Area in its Infancy. *Omega: Journal of Death and Dying* 69: 191–216. [CrossRef] [PubMed]
- Verbakel, Ellen, and Eva Jaspers. 2010. A Comparative Study on Permissiveness toward Euthanasia, Religiosity, Slippery Slope, Autonomy, and Death with Dignity. *Public Opinion Quarterly* 74: 109–30. [CrossRef]

- Webster, G. 2004. Building a Conceptual Model of Euthanasia Attitudes. Ph.D. Dissertation, University of Guelph, Guelph, ON, Canada.
- Wilkins-Laflamme, S. 2014. *Report: Religion in Canada*. Montréal: Centre for Ethnic Studies/Centre D'études Ethniques des Universités Montréalaises (CEETUM). Available online: <http://www.ceetum.umontre...les/2014/wilk-en-2014.pdf> (accessed on 10 December 2017).
- Wilkins-Laflamme, Sarah. 2017. Religious–Secular Polarization Compared: The Cases of Quebec and British Columbia. *Studies in Religion/Sciences Religieuses* 46: 166–85. [CrossRef]
- World Health Organization. 2017. WHO Definition of Palliative Care. Available online: <http://www.who.int/cancer/palliative/definition/en/retrieved> (accessed on 10 December 2017).
- Worthington, Everett J., Nathaniel G. Wade, Terry L. Hight, Jennifer S. Ripley, Michael E. McCullough, Jack W. Berry, Michelle M. Michelle, James T. Berry, Kevin H. Bursley, and Lynn O'Connor. 2003. The Religious Commitment Inventory-10: Development, Refinement, and Validation of a Brief Scale for Research and Counseling. *Journal of Counseling Psychology* 50: 84–96. [CrossRef]



© 2018 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).