Original Article

Learning about psychiatric aspects of medical assistance in dying: a pilot survey of self-perceived educational needs among assessors in a Canadian academic hospital

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Background: Medical assistance in dying (MAiD) was legalized in Canada in 2016, although it has been accessible as an end-of-life option in the province of Quebec since 2015. Before its implementation in clinical settings, few physicians had received formal training on requests assessments. New data indicate MAiD requesters have high rates of psychiatric comorbidities. Hence, assessment and management of psychiatric and psychosocial issues among MAiD requesters are important competencies to develop for assessors, although few training programs address them. The aim of our study was to explore physicians' self-perceived educational needs on psychiatric aspects related to MAiD in the province of Quebec.

Methods: We conducted a cross-sectional online survey and used a non-probability sampling design in one academic tertiary care center. A descriptive analysis was performed, and responders were compared on different variables.

Results: From twenty-five physician assessors, nineteen responded anonymously to an online survey (n=19). The findings of our pilot study revealed that participants felt highly competent in most psychiatric aspects at end-of-life and related to MAiD practice, except for psychotherapy and psychopharmacology as well as depression identification. Most indicated strong interest in further training. No statistical differences were found among responders regarding previous experience or training in palliative care.

Conclusions: Based on our study, MAiD assessors reported high level of competency in managing psychiatric issues among requesters, but that they also expressed a strong desire for additional education.

Keywords: Continuing medical education; medical assistance in dying (MAiD); needs assessment; suffering; palliative care

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Introduction

Physician-assisted death has been implemented in many jurisdictions worldwide in the past decades (1-3). In Canada, Medical assistance in dying (MAiD) was first made accessible in the province of Quebec in 2015 where the *Act Respecting End-of-Life Care* initially defined it as a palliative care option at the end of life (3). The rest of Canada has seen MAiD implemented in 2016 when the law *Bill C-14* [*An Act to Amend the Criminal Code and to Make Related Amendments to Other Acts (Medical Assistance in Dying)*, 2016], stated exhaustively eligibility criteria and went into force.

This practice has since been rapidly adopted in clinical settings, challenging medical practice in palliative care (4,5), and its accessibility remains in expansion. In the province of Quebec, for example, accessibility was extended in 2020 to people suffering from non-end-of-life illnesses, after the Superior Court of Quebec in 2019 ruled that restricting eligibility only to those persons at end of life violated the Canadian Charter of Rights and Freedoms (6). Considering that Court decision, the federal government then began a widespread consultation in order to revise the legislation under the name of Bill C-7 which modified again The Criminal Code and went into force in March 2021. Bill C-7 sets out two paths of accessibility: one for those patients whose natural death is reasonably foreseeable, and another for those whose death is not. It also added the possibility to waive the final consent requirement for those at-risk for losing the capacity to consent (7). See *Figure 1* for legal eligibility criteria and safeguards for MAiD in Canada, as well as obligations for physicians in the province of Quebec.

Over the years, this rapid implementation of that new practice increased the need for support and education among providers (8,9). Practicing MAiD in the province of Quebec according to the law, includes making sure that the patient is well informed about therapeutic possibilities and expected prognosis, making the request freely, and experiencing persistent and unbearable suffering (3).

Literature on the psychiatric aspects of physician assisted death is rapidly evolving in Canada since MAiD is accessible. A recent prevalence study done in one Canadian center indicated that MAiD requesters often present with both physical and psychological suffering and have high rates of comorbid psychiatric disorders (such as depressive or anxiety disorders) as opposed to appropriate sadness, subthreshold psychosocial symptoms, existential distress, or fatigue often seen in context of a terminal and debilitating illness (10). Lack of capacity to consent appear also to be a frequent reason for refusal of MAiD in Canada (11), which might indicate that assessment of capacity is an important task when practicing medical assisted death. Suicidal intent and attempts have been described among those who were not deemed a candidate for MAiD, as it has been shown in a recently published case series study (12), which makes suicidal risk management an important task to master. Identifying and caring for depression has been also reported by palliative care physicians as a complex and challenging task, as well as a desired topic to be trained on (13). Depression is in fact a frequent psychiatric comorbidity among terminally ill, as well as in medically ill who also express wishes for hastened death (14-16).

These psychiatric topics are relevant and therefore represent important competencies for physicians practicing MAiD. Little is known about how often psychiatry consultants are involved in MAiD cases in that jurisdiction, although previous data indicated psychiatrists are rarely involved in physician-assisted death around the world (17). This fact might suggest that providers and assessors manage themselves the psychiatric issues. More recently, Isenberg-Grzeda *et al.* revealed in a Canadian prevalence study among requesters (n=155) that psychiatrists were involved mostly in cases where psychiatric comorbidity is present (41.7%, n=60), especially for patients with severe mental illness where psychiatrists were involvement reaches 80% of cases (10).

To our knowledge, very few training programs designed for assessors specifically addressing these psychiatric issues have been described (1,18,19), and recent data published in 2021 indicates that providers still expressed the desire for more guidance and training (20). Bator *et al.* [2017] for example had reported that Canadian medical students' need for training on communication skills, medicolegal and religious aspects of MAiD are frequent and mostly unmet (21). Another study from Australia has described a model for training new assessors in their jurisdiction where assisted death has been recently made accessible (22). A framework to enhance training in end-of-life care and MAiD practice in Canada has also been published, although more data is needed to know if it is feasible, efficacious, and generalizable (19). Data on the level of interest for further training and preferred format on these specific competencies of MAiD practice among requesters in Canada is still lacking and would be especially important to have as MAiD accessibility is expected to be expanded in 2023, as per Bill C-7, to patients with only mental illness as a medical condition.

To make training programs effective in changing doctors'

Legal eligibility criteria and safeguards	IN THE PROVINCE OF QUEBEC ONLY	CANADA		
	Chapter S-32.0001: Act Respecting End-of-Life Care*	Bill C-14: An Act to amend the Criminal Code [medical assistance in dying]**	Bill C-7: An Act to amend the Criminal Code [medical assistance in dying] ***	
Eligibility criteria	1. "Be insured according to the Health Insurance Act 2. Be at least 18 years of age 3. Be capable of giving consent to care, which means the person must be able to understand the situation and the information given by health professionals as well as make decisions 4. Suffer from a serious, incurable illness 5. Be in an advanced state of irreversible decline in capability 6. Experience constant and unbearable physical or psychological suffering that cannot be relieved in a manner the person deems tolerable."	"A person may receive medical assistance in dying only if they meet all of the following criteria: a) they are eligible — or, but for any applicable minimum period of residence or waiting period, would be eligible — for health services funded by a government in Canada; b) they are at least 18 years of age and capable of making decisions with respect to their health; c) they have a grievous and irremediable medical condition; d) they have made a voluntary request for medical assistance in dying that, in particular, was not made as a result of external pressure; and e) they give informed consent to receive medical assistance in dying after having been informed of the means that are available to relieve their suffering, including palliative care." "A person has a grievous and irremediable medical condition only if they meet all of the following criteria: a) they have a serious and incurable illness, disease or disability; b) they are in an advanced state of irreversible decline in capability; c) that illness, disease or disability or that state of decline causes them enduring physical or psychological suffering that is intolerable to them and that cannot be relieved under conditions that they consider acceptable; and d) their natural death has become reasonably foreseeable, taking into account all of their medical circumstances, without a prognosis necessarily having been made as to the specific length of time that they have remaining."	"As of March 17, 2021, persons who wish to receive MAID must satisfy the following eligibility criteria: 1. be 18 years of age or older and have decision-making capacity; 2. be eligible for publicly funded health care services; 3. make a voluntary request that is not the result of external pressure; 4. give informed consent to receive MAID, meaning that the person has consented to receiving MAID after they have received all information needed to make this decision; 5. have a serious and incurable illness, disease or disability (excluding a mental illness until March 17, 2023); 6. be in an advanced state of irreversible decline in capability; 7. have enduring and intolerable physical or psychological suffering that cannot be alleviated under conditions the person considers acceptable"	
Safeguards (and obligations for physicians in the province of Quebec)	**Obligations for physicians in the province of Quebec:** The Act respecting end-of-life care states that "doctors must comply with various obligations before administering medical aid in dying: 1. They must first ensure that the patient requesting medical aid in dying meets all of the conditions prescribed. - Make sure that the patient is making the request freely and not as a result of external pressure - Make sure that the request is an informed one, in particular by informing the patient of the prognosis for the illness and of other therapeutic possibilities and their consequences - Verify the persistence of suffering and that the repeatedly expressed wish to obtain medical aid in dying remains unchanged by talking with the patient at different times. These discussions must be held at reasonably spaced intervals given the progress of the patient's condition - Discuss the patient's request with any members of the care team who are in regular contact with the patient - Discuss the patient's request with his or her close relations, if the patient so wishes 2. They must make sure that the patient has had an opportunity to discuss the request with the persons that he or she wished to inform. 3. They must obtain the opinion of a second – independent – doctor confirming that the conditions for obtaining medical aid in dying are met. 4. The doctor who administers medical aid in dying must be independent, with respect to both the person who made the request and the second doctor. The second doctor must also be independent of the person who made the request for medical aid in dying." "Ability to consent to care: As of June 11, 2021, the Act respecting end-of-life care allows people at the end of life who meet all criteria for receiving medical aid in dying to receive this aid even if they have become incapable of consenting to the care at the time aid is administered. However, these people must have consented to receive this care in writing in the presence of a healthcare professional within 90 days before the date of administration of medical aid in dying."	**Safeguards:** "Before a medical practitioner or nurse practitioner provides a person with medical assistance in dying, the medical practitioner or nurse practitioner must a) be of the opinion that the person meets all of the criteria set out in subsection (1); b) ensure that the person's request for medical assistance in dying was (i) made in writing and signed and dated by the person or by another person under subsection (4), and (ii) signed and dated after the person was informed by a medical practitioner or nurse practitioner that the person has a grievous and irremediable medical condition; c) be satisfied that the request was signed and dated by the person — or by another person under subsection (4) — before two independent witnesses who then also signed and dated the request; d) ensure that the person has been informed that they may, at any time and in any manner, withdraw their request; e) ensure that another medical practitioner or nurse practitioner has provided a written opinion confirming that the person meets all of the criteria set out in subsection (1); f) be satisfied that they and the other medical practitioner or nurse practitioner referred to in paragraph (e) are independent; g) ensure that there are at least 10 clear days between the day on which the request was signed by or on behalf of the person and the day on which the medical assistance in dying is provided or — if they and the other medical practitioner or nurse practitioner referred to in paragraph (e) are both of the opinion that the person's death, or the loss of their capacity to provide informed consent, is imminent — any shorter period that the first medical practitioner or nurse practitioner considers appropriate in the circumstances; h) immediately before providing the medical assistance in dying, give the person an opportunity to withdraw their request and ensure that the person gives express consent to receive medical assistance in dying; and i) if the person has difficulty communicating, take all necessary measures to provide a reliable means by which the person may understand the information that is provided to them and communicate their decision."	**Safeguards:** "Request for Medical assistance in dying must be made in writing: a written request must be signed by one independent witness, and it must be made after the person is informed that they have a "grievous and irremediable medical condition." (a paid professional personal or health care worker can be an independent witness) Two independent doctors or nurse practitioners must provide an assessment and confirm that all the eligibility requirements are met The person must be informed that they can withdraw their request at any time, in any manner The person must be given an opportunity to withdraw consent and must expressly confirm their consent immediately before receiving Medical assistance in dying (however, this "final consent" requirement can be waived in certain circumstances)"	
			Natural death is reasonably foreseeable[a]	Natural death is not reasonably foreseeable
			"The revised law now allows the waiver of the requirement to provide final consent immediately before receiving Medical assistance in dying for patients whose natural death is reasonably foreseeable, where: - the person has been assessed and approved to receive Medical assistance in dying - the person is at risk of losing decision-making capacity before their preferred date to receive Medical assistance in dying, and has been informed of that risk - the person makes an arrangement in writing with their practitioner to waive final consent, and according to which the practitioner will administer Medical assistance in dying on their preferred date if they have lost the capacity to provide final consent at that time - The agreement to waive final consent will be invalid if the person, after having lost decision-making capacity, demonstrates refusal or resistance to the administration of Medical assistance in dying by words, sounds or gestures. Reflexes and other types of involuntary movements, such as a response to a touch or to the insertion of a needle, do not constitute refusal or resistance."	Additional safeguards for patients whose natural death is not reasonably foreseeable: ""If neither of the two practitioners who assesses eligibility has expertise in the medical condition that is causing the person's suffering, they must consult with a practitioner who has such expertise. *The person must be informed of available and appropriate means to relieve their suffering, including counselling services, mental health and disability support services, community services, and palliative care, and must be offered consultations with professionals who provide those services. *The person and the practitioners must have discussed reasonable and available means to relieve the person's suffering, and agree that the person has seriously considered those means. *The eligibility assessments must take at least 90 days, but this period can be shortened if the person is about to lose the capacity to make health care decisions, as long as both assessments have been completed."

Figure 1 Legal eligibility criteria and safeguards for Medical Assistance in Dying in Canada (3,6,7). [a], "Be in a state in which "natural death has become reasonably foreseeable, taking into account all of their medical circumstances, without a prognosis necessarily having been made as to the specific length of the time that they have remaining". *, at the time of our pilot study, the Act Respecting End-of-Life Care that came into force on December 10th, 2015 had an additional eligibility criterion: "be at the end of life". Since March 12th, 2020, this criterion is no longer applied. Of note, self-administration is not permitted in the province of Quebec and only physicians are allowed to provide MAiD. **, at the time of our study, Bill C-14 was in force in Canada since June 17th, 2016. ***, Bill C-7 came into force on March 17th, 2022. Eligibility for persons suffering solely from mental illness is temporarily excluded until March 17th, 2023.

clinical practice, identifying the learners' needs is crucial in medical education (23,24). Educational needs of MAiD assessors have been explored, but to our knowledge, no study have specifically focused on psychiatric aspects. By conducting a cross-sectional online survey, our pilot study was designed to explore self-perceived educational needs among MAiD assessors in one academic center. Although MAiD often occur in an interprofessional context as nurses, pharmacist, social workers, psychologists might be involved in the care of the requester, the focus of our study was on assessors which are responsible to fulfill the legal criteria checklist before MAiD can be provided. In the province of Quebec, only physicians can be MAiD assessors or providers, while in the rest of Canada, both physicians and nurse practitioners can provide MAiD. We present the following article in accordance with the SURGE reporting checklist (available at https://apm.amegroups.com/article/view/10.21037/apm-22-422/rc).

Methods

The pilot study took place at a 750-bed academic and tertiary care hospital center in the province of Quebec (Canada). The survey was performed in 2017, one year and a half after the government of Quebec enacted its law on MAiD for end-of-life patients. At that time, assessor was invited by Quebec's Collège des Médecins to participate in a training program, which addressed mainly protocols and legal issues, and was not designed to focus specifically on psychosocial and psychiatric issues. None of the recent law modifications had occurred at the time of the study. MAiD was in fact provided solely at the end of life as per the eligibility criteria and was considered a new medical practice in palliative context. Since then, as mentioned, in the province of Quebec, MAiD has been made accessible to all patients with progressive and irreversible decline, not only for those suffering from an end-of-life condition. The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). The research design was approved by the scientific and research ethics committee of Centre Hospitalier de l'Université de Montréal (approval No. 16.384). A cross-sectional self-administered web-based anonymous survey was conducted, like those used in medical education to explore learning expectations (25,26). Informed consent was taken from all the participants. Most questions were close-ended and used a Likert scale to measure participants' estimated level of knowledge on psychiatric aspects involved in MAiD requests. Very few were open-ended with text box responses. The questionnaire was developed by our research group to capture the MAiD assessors' views of their educational needs (see Appendix 1). It took approximately 5 to 10 minutes to complete it. Specifically, questions were designed to establish participant profile and explore their perceptions regarding the educational needs on psychiatric aspects involved in assessing a MAiD request. To reach optimal validity and reliability, we used several strategies recognized as best practices in survey-based research (27,28). In fact, to ensure the clarity and the relevance of the questionnaire, a pre-test was done with a research member included in the target population, and response time was measured (26,29).

The main inclusion criteria were practicing medicine at our center and having performed at least one eligibility assessment for MAiD. Physicians-in-training and those working in other hospitals were excluded. A non-probability sampling was used. All 25 physicians involved in MAiD request assessments were first contacted by the chief physician via email to know if they agreed to be solicited for the study. All agreed to be invited. An email was then sent to them with the consent form and a link to the online questionnaire which recorded the answers anonymously. Participants had 3 weeks to sign the consent form and complete the survey. There was no incentive used to motivate participation. A reminder email was sent one week before the end of this three-week period.

Statistical and descriptive analyses

Statistical analyses were performed using IBM SPSS Statistics version 28 (IBM Corporation, Armonk, NY, USA). Descriptive analysis was done with the collected data. Response rate was calculated as the percentage of the population sample that responded to the survey. A chi-square test was also done to compare groups of responders on different between categorical variables (i.e., previous training on palliative care or MAiD, years of experience, medical specialty and level of self-perceived competencies).

Results

The response rate obtained in that pilot study was 76%. Of the 25 physicians approached by our research team, 19 participants fully answered anonymously our online survey (n=19). Six did not signed the consent nor completed the poll. We do not know the reasons of declining the participation. Responders were about twice as many men

as women [13 men (68%) *vs.* 6 women (32%)]. Most of them (58%) had over 20 years' experience and were from different medical specialties (such as family medicine, oncology, surgery, anesthesiology, etc.) (see *Table 1*), which were representatives of the underlying population selected. Section 1 addresses responders' demographics and background (see *Table 1*); the non-responders were not contacted to gather such information on their profile. While 9 participants (47%) had no training in palliative care, 37% mentioned not having been trained in MAiD assessments tasks whatsoever. Less than half our participants had provided palliative care in their practice (42%). Fifteen of them (79%) had provided MAiD at least once.

Section 2 addressed perceived learning needs by estimated levels of competency in selected areas of psychiatric aspects of MAiD (see *Table 2*). Participants reported their highest level of knowledge in different areas, such as evaluating capacity to consent to MAiD, distinguishing a MAiD request from suicidal ideation, and evaluating psychological suffering. Identifying needs and disorders, as well as determination of capacity of patients were domains where physicians reported higher levels of competency. The domains in which they reported having the lowest level of competency were treating psychiatric disorders, including depression, with pharmacotherapy and with psychotherapy (53% reported a poor level).

Section 3 was on teaching content preferences (see *Table 3*). The interest level in further training was the highest for end-of-life psychiatric disorders and evaluating capacity to consent to MAiD. End-of-life spiritual and religious issues were the only aspect in which some reported no interest at all (16%). However, all areas had a minimum of 79% participants being at least somewhat interested in further training.

Section 4 scoped teaching format preferences, including e-learning (30,31) (see *Table 4*). Among the potential formats proposed, 63% of respondents chose group-based learning (e.g., workshops), while 53% of participants chose e-learning. It is worthwhile noting that for some questions participants could choose more than one answer.

From statistical analysis, we found no statistically significant difference between categorical variables, such as assessors' medical specialty, previous training, years of experience and self-perceived level of competence, with a chi-carre test.

Discussion

To our knowledge, this pilot study was the first to explore educational needs on psychiatric aspects among MAiD assessors in the province of Quebec. Despite a tendency of response rate to decline in clinician surveys in the past decades, 76% of our sample completed the online survey, which would be consider as a high response rate for clinicians as it is above 60% (32,33). Based on our findings, 79% of the respondents have performed MAiD before completing the survey, which might indicate that MAiD had become part their medical practice to relieve suffering at the end-of-life. However, our results also indicate that most participants had not received formal education on psychiatric aspects of MAiD before practicing it and showed a strong interest to be better trained in those topics. This finding is consistent with recent data indicating that significant informational needs have been found among health care professionals, and members of the public as well, on the relational, emotional and symbolic aspects, which go beyond medical and legal aspects of this practice (34).

Furthermore, even though 95% of participants had reported taking care of patients at the end of life on a regular basis, 47% had never received any formal palliative care or end-of-life training, which usually includes psychosocial issues and psychiatric symptoms management. This finding is surprising since all assessors must in every case require such competencies in evaluating if the individual who requests MAiD is able to "understand the situation and the information given by health professionals as well as make decisions", and "experience constant and unbearable physical or psychological suffering" (3). In fact, despite a high prevalence of psychiatric symptoms and disorders in palliative care, there is still very little post-graduate training on these conditions, which are often underrecognized and undertreated in end-of-life contexts (35,36).

In our pilot study, the participants assessed their own levels of competency with regards to psychiatric aspects of MAiD as high. For example, an important proportion of participants reported confidence in distinguishing a MAiD request from suicidal ideation, which appears consistent with the findings of a recent study that documented among requesters, assessors and citizens that MAiD might be perceived differently compared to suicide (37). Surprisingly, despite this high-level of confidence, this topic appeared to interest almost half of the responders (very and extremely interested: 58%) as a topic that should be addressed in additional training, which makes us wonder if overconfidence might have been here a significant factor in those results, or a bind where physicians must regard themselves as capable of assessing suicidality for legal purpose. Differentiating

Table 1 Responders' demographics and background

Demographics and background	Survey items	n	%
Gender	Male	13	68.4
	Female	6	31.6
Years of medical practice	0–5 years	3	15.8
	6–10 years	2	10.5
	11–15 years	1	5.3
	16–20 years	2	10.5
	Over 20 years	11	57.9
Medical specialty	General practice	3	15.8
	Medical oncology	2	10.5
	Urology	2	10.5
	Anesthesiology	2	10.5
	Hemato-oncology	2	10.5
	Palliative care	2	10.5
	Gastroenterology	1	5.3
	Radio-oncology	1	5.3
	Endocrinology	1	5.3
	Pneumology	1	5.3
	Cardiology	1	5.3
	Addictions medicine	1	5.3
Previous training in palliative care*	Previous training		
	Internship rotations (residency)	6	31.5
	Personal reading	6	31.5
	Medical conferences	4	21.1
	Fellowship training	3	15.8
	Clerkship rotations (med. school)	2	10.5
	Training for family physicians	1	5.2
	Online training	1	5.2
	No training	9	47.4
Previous training in Medical Assistance in Dying*	Personal reading	7	36.8
	Medical conferences	6	31.6
	Hospital-based online training	5	26.3
	Other online training	2	10.5
	Training day from the Collège des Médecins du Québec	1	5.2
	No training	7	36.8

Table 1 (*continued*)

Table 1 (*continued*)

Demographics and background	Survey items	n	%
Ever took care of an end-of-life patient	Yes	18	94.7
	No	1	5.3
Ever worked in palliative care	Yes	8	42.1
	No	11	57.9
Ever performed medical assistance in dying	Yes	15	78.9
	No	4	21.1

*, more than one answer was accepted for that question.

Table 2 Self-estimated levels of competency among responders

Competency	Estimated levels of competency (%)				
	Very poor	Poor	Fair	Good	Very good
Identifying needs/identifying and treating psychiatric disorders					
Evaluating suffering*	–	5	26	53	16
Identifying patients' psychosocial needs	–	11	37	47	5
Identifying psychiatric disorders	–	5	42	47	5
Identifying/treating end-of-life delirium	–	21	42	26	11
Identifying/treating end-of-life depression	5	32	53	11	-
Distinguishing Medical assistance in dying requests from suicidal ideation	–	–	21	74	5
Meeting psychosocial needs/offering psychiatric treatments					
Meeting psychosocial needs	5	16	42	32	5
Pharmacotherapy for psychiatric disorder	11	53	32	5	–
Psychotherapy for psychiatric disorders	5	53	37	5	–
Determination of capacity					
Evaluating capacity to consent to MAiD	–	–	21	58	21

*, definition of suffering was given in the question in reference to the criterion of Law 2: "Must experience constant and unbearable physical or psychological suffering that cannot be relieved in a manner the person deems tolerable".

suicidal ideation as a depressive symptom from a desire to hasten death with a MAiD request, can be in some cases a learning opportunity for which providers might ask for an independent opinion of a psychiatrist. Consultation-liaison psychiatrits have been in fact involved in complexes cases of physician-assisted death around the world and might offer assistance in clarifying capacity, identifying mental disorders or helping along with the rest of the team to resolve complex relational issues or manage suicidality (17,38,39).

The responders reported the lowest level of competency were treating psychiatrists disorders, including depression, with pharmacotherapy or psychotherapy. This might not be surprising as clinicians might feel that they do not currently have strong data on the efficacy nonpharmacological or pharmacological interventions for depressed patients at end of life, especially for those with extremely short prognoses (13).

Furthermore, nearly 80% of participants reported they had a high level of competency in assessing capacity to consent to MAiD. This finding might suggest overconfidence among our participants as previous data indicated physicians might have difficulties to detect lack of capacity in palliative care settings. In fact, one study revealed

Table 3 Interest level for further training on specific topics

Topics	Interest level for further training (%)				
	Not at all interested	Slightly interested	Somewhat interested	Very interested	Extremely interested
Exploring and evaluating suffering	–	16	32	32	21
Evaluating capacity to consent	–	–	32	58	11
End-of-life psychosocial issues	–	16	42	26	16
End-of life psychiatric symptoms and disorders	–	11	16	63	11
End-of-life spiritual and religious issues	16	5	37	37	5
End-of-life existential issues	–	16	26	37	21
Differences between a Medical assistance in dying request and suicidal ideation	–	11	32	47	11
Natural caregivers' and families' reactions	–	5	37	42	16
Healthcare professionals' reactions	–	16	32	32	21

a high rate of poor decision-making abilities among the terminally ill (40). Another one showed significant cognitive impairments in hospice care patients, despite an absence of documented or clinically obvious impairment, which had the authors recommending assessment of cognition in hospice patients, as it may interfere with decision-making capacity (41). Determining capacity to consent to MAiD is an important and complex task since a significant proportion of patients might encounter different clinical situations that undermine or impair decisional capacity in advanced diseased (42). Some researchers have even studied the use of tools in predicting which patient might lose it before the provision of MAiD (11).

In the presence of psychiatric comorbidity, the decision-making capacity to consent is rarely affected, but can be in some severe cases (43). Best practices of capacity to consent to treatment include considering variations in capacity over time and depending on the type of decision, the severity of symptoms, and the phase of the mental illness (44). Consequently, although every assessor has to feel competent to assess capacity, any overestimation of that competence could potentially and to some extent result in lack of recognition of individuals without capacity or missed opportunity to ask for a specialized advice, such as to a consultation-liaison psychiatrist when complexity arise from cases (45). In that sense, it appears important to acknowledge that decision making might be a complex task best done within peer environments.

Nearly 70% of participants reported their competency level as "good" or "very good" regarding the evaluation of suffering among requesters. It is unclear whether these participants meant they were comfortable trying to explore suffering, or whether they were able to simply confirm its existence as subjectively reported by the patient accordingly to the Canadian legal requirements. Evaluating suffering can be a complex task for experienced clinicians, as it requires a high degree of skills and sufficient time (46). In fact, suffering is by definition global, non-quantifiable, multidimensional, and influenced by many factors, including an existential dimension (47-50). The challenges facing the terminally ill can be physical, psychological, existential, and spiritual (51).

Finally, while e-learning is increasing in popularity in medical training (30,52), our participants preferred group-based learning, which was unexpected. Although the questionnaire did not specifically ask to the participants why they had that preference, many reasons could explain it. We wonder if it may be due to the complex nature of psychiatric aspects of MAiD, which participants might find to be better explained, explored and discussed through in-person group teaching. Another possibility could be that most of our participants having over 20 years of experience might be less comfortable with web-based e-learning. Of note, we wonder if the same study was performed in post-COVID era, we would have obtained the same results as virtual, and more recently hybrid formats, have expanded rapidly in CME activities due to the pandemic (53). On the other hand, learning and reflecting on the depth of psychological or ethical issues with intersubjective shared experience

Table 4 Format preferences of responders for additional training

Format preferences	Survey items	n	%
Preferred learning formats*	Group-based learning (e.g., workshops)	12	63.2
	E-learning	10	52.6
	Lectures	6	31.6
Preferred time to participate in such training*	Outside of work hours	13	68.4
	During work hours	11	57.9
Would accept to pay	Yes	10	52.6
	No	9	47.4
Would be interested in e-learning	Yes	11	57.9
	No	5	26.3
	No opinion	3	15.8
Ideal electronic modality for receiving e-learning*	Personal computer	13	68.4
	Work computer	7	36.8
	Smart phone	1	5.3
	Tablet	1	5.3
Ideal time for one e-learning module	5 min	1	5.3
	10 min	8	42.1
	15 min	6	31.6
	More than 15 min	1	5.3
	No opinion	3	15.7
Ideal total time for e-learning	20 min	3	15.8
	30 min	6	31.6
	40 min	4	21.1
	More than 40 min	3	15.8
	No opinion	3	15.7

*, more than one answer was accepted for this question.

might be better pursued in face-to-face format.

Despite its strengths, including high response rate, exploring perspective of new MAiD practitioners, this pilot study has also limitations. First, it is worth mentioning while the response rate reached 76%, the sample size remains small. As it was performed in only one center and in the province of Quebec where the legal criteria to be eligible to MAiD are somewhat different from the rest of Canada, its generalizability is also limited. The fact that 79% of our responders had previously provided MAiD might indicate a tendency of responders to report positive views towards physician-assisted death to relieve unbearable suffering, as opposed to physicians without experience or hesitant to medical assistance in dying. Moreover, the extent to which our participants perceived their real learning needs adequately is unknown since it was not objectively measured. In fact, some physicians have a limited ability to self-assess their own competencies (54). Therefore, a future multicenter study with a larger participant population with higher variation would help validating our pilot study.

Conclusions

MAiD is an evolving practice and an important area of

medicine that warrants formal training for physicians where jurisdictions make it accessible. Patients at the end of life who request for assisted death are at risk for psychiatric comorbidities as well as psychosocial issues. Despite some limitations, our pilot study revealed that physicians reported a high level of competency in terms of psychiatric aspects among MAiD requesters, but that they also expressed a strong desire for additional education. Future research should clarify if this high level of self-competency constitutes an overestimation of their actual knowledge, especially in the context where MAiD is now practiced. Objective measurement of competences would be at this point interesting since there is a lack of training not only on psychiatric aspects of MAiD, but also on other aspects of palliative care. Exploring such educational needs on that topic among in diverse healthcare professionals and in different clinical settings (including in other Canadian provinces) would also be relevant. How psychiatrists could contribute to this educational challenge is another avenue of research. Providing high-quality training programs to meet patients' needs continues to be a priority as access to MAiD has been progressively expanded in Canada.

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Footnote

Reporting Checklist: The authors have completed the SURGE reporting checklist. Available at https://apm.amegroups.com/article/view/10.21037/apm-22-422/rc

Data Sharing Statement: Available at https://apm.amegroups.com/article/view/10.21037/apm-22-422/dss

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Conflicts of Interest: All authors have completed the ICMJE uniform disclosure form (available at https://apm.amegroups.com/article/view/10.21037/apm-22-422/coif). The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). The study was approved by the scientific and research ethics committee of the Centre Hospitalier de l'Université de Montréal (approval No. 16.384) and informed consent was taken from all the participants.

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Appendix 1

Survey questionnaire used for the educational needs assessment on the psychiatric aspects of Medical Assistance in Dying (MAiD):

Section I : Demographics and Background

1. Gender : Male; Female
2. Years of practice : 0-5 years; 6-10 years; 11-15 years; 16-20 years; Over 20 years
3. Medical specialty : _____
4. Have you ever received training in palliative care in the past? : No; Yes (please specify).
5. Have you ever received training in MAiD? No; Yes (please specify : Medical conferences, Hospital intranet training, Personal reading, Training day from the Collège des Médecins du Québec, Online training, Other (please specify)
6. Have you ever taken care of an end-of-life patient?: Yes; No
7. Have you ever worked in a palliative care unit? Yes; No
8. Have you ever evaluated a patient request for MAiD? Yes; No
9. Have you ever performed MAiD? Yes; No

Section II : Perceived learning needs

Please answer the following questions based on your knowledge and on general MAiD clinical experience: 1= Very poor, 2= Poor, 3= Fair, 4= Good, 5= Very good

10. How would you assess your level of competency in exploring or evaluating the suffering of patients requesting MAiD (criterion of the Law: “Must experience constant and unbearable physical or psychological suffering that cannot be relieved in a manner the person deems tolerable.”)? w'w
11. How would you assess your level of competency in identifying the psychosocial needs of patients requesting MAiD (for example, social isolation)?
12. How would you assess your level of competency in responding to psychosocial needs of patients requesting MAiD?
13. How would you assess your level of competency in identifying psychiatric disorders in patients requesting MAiD (for example, depression)?
14. How would you assess your level of competency in treating psychiatric disorders in patients requesting MAiD, with the help of pharmacotherapy?
15. How would you assess your level of competency in treating psychiatric disorders in patients requesting MAiD, with the help of psychotherapeutic interventions?
16. How would you assess your level of competency in identifying and treating end-of-life delirium?
17. How would you assess your level of competency in identifying and treating end-of-life depression?
18. How would you assess your level of competency in evaluating capacity to consent to MAiD?
19. How would you assess your level of competency in distinguishing a MAiD request from a suicidal ideation (as defined by “the idea of taking one’s own life”[1])?
20. Would you be interested in having more training on the psychosocial and psychiatric aspects of MAiD? Yes; No.

Section III : Teaching Content Preferences

21. If we were offering further training on the following subjects, how interested would you be to receive it? 1= Not at all interested, 2= Slightly interested, 3= Somewhat interested, 4= Very interested, 5= Extremely interested;
    Exploring and evaluating psychological suffering
    Evaluating capacity to consent to MAiD
    End-of-life psychosocial issues and interventions that can help
    End-of-life psychiatric symptoms and disorder and their treatment
    End-of-life spiritual and religious issues (e.g. “questioning” on God or the after-life)
    End-of-life existential issues (e.g. searching for meaning or loss of dignity)
    Differences between suicidal ideation and a MAiD request
    Reactions of friends and family of a patient who obtains MAiD
    Reactions of healthcare professionals (including physicians) on MAiD (e.g. grief or stigma)
22. In your opinion, would there be other subjects to address, regarding the psychiatric aspects of MAiD? Yes (please specify): ___ ; No

Section IV : Teaching Format Preferences

23. In your opinion, what would be the best teaching formats to acquire further knowledge and competencies on the psychiatric aspects of MAiD? E-learning (learning through internet and other electronic media); Lectures; Group-based learning (e.g. workshops); Other (please specify).
24. What would be the best time for you to participate in such training? During work hours; Outside of work hours.
25. Would you be ready to pay for such training? Yes; No
26. In medical education, e-learning usually refers to the use of Internet technologies to enhance knowledge and performance[2]. E-learning is a teaching modality that offers great flexibility, hence its growing popularity with physicians[3]. Would you be interested to receive this kind of training to acquire new knowledge and competencies on the psychiatric aspects of MAiD? Yes; No; No opinion
27. Through which mean(s) would you prefer to receive e-learning on the psychiatric aspects of MAiD? Through my smart phone; Through my personal computer; Through my work computer; I am not interested in e-learning training on MAiD; Other (please specify)
28. In your opinion, what would be the ideal time duration of a single e-learning module on one of the psychiatric aspects of MAiD mentioned earlier? 2 to 3 minutes; About 5 minutes; About 10 minutes; About 15 minutes; I am not interested in e-learning training on MAiD; Other (please specify)
29. What would be the maximal time duration you would be willing to dedicate to e-learning training on the psychiatric aspects of MAiD? About 10 minutes; About 20 minutes; About 30 minutes; About 40 minutes; I am not interested in e-learning training on MAiD; Other (please specify)

This questionnaire has not been previously published or has not appeared in copyrighted form elsewhere.

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