

MEDICINE AND SOCIETY

Should Euthanasia Be Considered Iatrogenic?

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Abstract

As more countries adopt laws and regulations concerning euthanasia, pediatric euthanasia has become an important topic of discussion. Conceptions of what constitutes harm to patients are fluid and highly dependent on a myriad of factors including, but not limited to, health care ethics, family values, and cultural context. Euthanasia could be viewed as iatrogenic insofar as it results in an outcome (death) that some might consider inherently negative. However, this perspective fails to acknowledge that death, the outcome of euthanasia, is not an inadvertent or preventable complication but rather the goal of the medical intervention. Conversely, the refusal to engage in the practice of euthanasia might be conceived as iatrogenic insofar as it might inadvertently prolong patient suffering. This article will explore cultural and social factors informing families', health care professionals', and society's views on pediatric euthanasia in selected countries.

Introduction

In 2016, a terminally ill 17 year old was the first publicly reported minor to die with the help of a physician in Belgium since age restrictions in the country were lifted in 2014 [1]. Establishment of laws permitting euthanasia in 2002—initially in the Netherlands, followed shortly thereafter in Belgium [2], and the laws' subsequent extension in those countries to minors [3, 4]—has provoked an international debate concerning whether euthanasia for minors is both a legally and a morally acceptable option for infants and children suffering from incurable conditions [5-13]. Jotkowitz et al. strongly argue against active euthanasia for suffering infants, stating that a protocol for neonatal euthanasia “violates the traditional ethical codes of physicians and the moral values of the overwhelming majority of the citizens of the world” [14]. Conceptions of what constitutes harm to patients are fluid and highly dependent on a myriad of factors including, but not limited to, the societal and cultural context in which they exist [14, 15]. An accepted definition of medical iatrogenesis that will be used throughout this manuscript is the inadvertent and preventable induction of disease or complications by the treatment or procedures of a physician or surgeon [16].

Iatrogenesis and Euthanasia

In a traditional sense, the provision of euthanasia could be viewed as iatrogenic in that it constitutes a deliberate act, by a physician, which leads to the undesirable outcome of death. However, this presupposes that death is always an undesirable outcome, which might not be the case for young patients or parents of infants who request euthanasia to end what they consider unbearable suffering. From this perspective, the refusal of a physician or other members of the medical community to engage in the practice of euthanasia might be conceived as iatrogenic—in this case, by *refraining* from providing euthanasia, unbearable suffering is perpetuated.

A question raised by these different perspectives is, *What constitutes iatrogenesis and harm in pediatrics?* To illustrate, one need only imagine early experiences of many extremely premature newborns; most would not survive were it not for life-sustaining interventions, including intubation and mechanical ventilation. These interventions prolong life but often contribute to disability [17]; accordingly, they are intrinsically iatrogenic. And yet a prevailing view remains that these interventions are noble and constitute the “right thing to do” because they aim to protect and preserve life by giving every baby and family a chance at a happy and fulfilling life.

Whether euthanasia is perceived as iatrogenic will likely depend upon a variety of factors. For example, physicians’ and family members’ past experiences with patients or loved ones who endured prolonged suffering might shape their views on whether euthanasia is a deliberate act aimed at alleviating suffering (noniatrogenic) or an act whose consequence—death—is unintended and preventable (iatrogenic). Undoubtedly, an individual’s views on whether euthanasia for minors is morally justifiable will be shaped by not only past experience but also religious convictions and the dominant medical and societal cultural norms. To better understand the influence of these factors, one must consider a brief history and the current state of practices in various countries.

Euthanasia for Minors in the Netherlands and Belgium

Euthanasia in the Netherlands is regulated by the Termination of Life on Request and Assisted Suicide (Review Procedures) Act, in force since 2002 [18]. This act prescribes *due care* criteria to be met by a physician performing euthanasia and applies to patients age 12 and older. More specifically: (a) the physician must hold the conviction that the patient’s request is voluntary and well considered; (b) the physician must determine that the patient’s suffering is lasting and unbearable; (c) the physician must inform the patient about his or her situation and prognosis and ascertain that the patient has understood the information; (d) the patient must believe there is no other reasonable solution to his or her situation; (e) the physician must have consulted at least one independent physician who has also evaluated the patient and given a written opinion that the aforementioned due care requirements have been met; and (f) the physician must exercise due medical care in performing euthanasia, which includes following

approved guidelines for recommended substances, doses, and methods of administration and for performing appropriate checks to determine the depth of induced coma and having an emergency set of intravenous substances on hand [18, 19]. Termination of life for patients ages 12-16 years requires parental or guardian permission [18]. For patients ages 16-17, the parent(s) or guardian(s) must be consulted, but their permission is not required. The act does not address euthanasia for infants or younger children. In 2005, however, the Groningen Protocol (GP) for newborn euthanasia was published, which sought to regulate the practice of euthanasia in infants with “unbearable suffering” in an attempt to make it more transparent [3].

Shortly after the act establishing due care criteria came into effect, Belgium enacted legislation permitting euthanasia for patients older than 17 years who are severely ill, who experience constant and unbearable physical or mental suffering, and whose request for euthanasia is voluntary, well considered, and repeated [11]. In 2014, this legislation was extended to minors, with no mention of a specific age limit. The conditions of the law for minors are more restrictive and include the requirement for parental permission and determination by a psychologist or psychiatrist that the patient is capable of discernment [4]. Although Belgium does not officially subscribe to the GP, a comparison of end-of-life practices by Dutch and Belgian physicians for neonates and infants under the age of one year demonstrated that physicians administered drugs with the explicit intention of hastening death in similar percentages of infant deaths in both countries (9 percent versus 7 percent, respectively) [20].

These euthanasia laws and the GP are not without controversy, even within their countries of origin. Authors and supporters of the GP maintain that it serves the principle of beneficence [21]. As alluded to earlier, life-sustaining intervention, applied to premature or critically ill newborns, can itself induce chronic disease or result in disability. Proponents of the GP argue that, despite progress, modern anesthesiology cannot ensure the elimination of “unbearable suffering” of the newborn by palliative means [21]. Therefore, it would follow that physicians have a moral and professional responsibility to alleviate unbearable suffering, which, in part, can be caused by the very medical interventions physicians initially employed to preserve life at all costs. As a case in point, extremely premature infants often require prolonged intubation and mechanical ventilation as well as the insertion of central venous catheters for administration of parenteral nutrition. These invasive interventions, meant to preserve life, can have foreseeable, but unintended negative consequences, which by definition are iatrogenic. Central line-associated bloodstream infections can lead to septic shock and multisystem organ failure; prolonged mechanical ventilation increases the risk for chronic lung disease, with some infants remaining ventilator-dependent, and is also associated with retinopathy of prematurity [17]. Euthanasia for extremely premature infants thus might be viewed as a morally justifiable and even noble action, since the goal is to relieve suffering. Alternatively, refusal to euthanize these infants might be seen as a form of

iatrogenesis, particularly when technology or other life-sustaining interventions, which themselves might cause complications, are being used.

Europe: A Continent Divided

The view that providing euthanasia to terminally ill minors or infants is a morally justifiable role for physicians is not widespread in Europe. A recent study examining end-of-life decisions for newborns indicated diversity of opinion among European physicians and concluded that the most important predictor of how physicians responded to decisions about neonatal end-of-life care was the country in which the physician worked [22]. In fact, only the Netherlands, Belgium, and Luxembourg currently have laws pertaining to euthanasia in general, and no other European country permits or endorses euthanasia for minors [2]. Some opponents of pediatric euthanasia see it as an extension of Dutch “death culture,” which is feared as leading down a slippery slope, whereby approving this procedure for minors, even with strict requirements, could lead to overuse and abuse [21, 23]. Others believe that euthanasia is unacceptable under any circumstance and argue that pediatric euthanasia is in conflict with principles established after World War II, including the sanctity of life [21, 23]. In Greece, for example, the practice of euthanasia is forbidden and considered unlawful [21, 24]. Euthanasia’s legal status in Greece is consistent with the predominant opinion of members of the lay public, who believe that ending a person’s life intentionally, even if the person is terminally ill and requests to die, is unethical [24, 25]. Well-rooted religious and cultural values in Greece still play important roles in shaping public opinion on euthanasia and might also influence whether euthanasia for minors would be perceived as iatrogenic by health care professionals, many of whom subscribe to the country’s prevailing religion [24, 25].

Christians generally value “a fundamental humanitarian principle of the goodness in relieving a fellow person’s suffering” [26]. Within the Christian community, some might accept benevolent intent as a justification for euthanasia; however, for others, benevolent intent to relieve suffering might not necessarily justify death as the final outcome of an attempt to “help” the patient [24]. Regardless of whether euthanasia is considered justified, it would probably follow that euthanasia would not be regarded, from a Christian perspective, as iatrogenic because its intent would be to bring about death; death would not be an unintended consequence of an act aimed at relieving suffering, but rather a deliberate means to an end, which would be viewed as morally impermissible.

Countries of the so-called “Mediterranean bioethical zone” [21] often apply a form of virtue ethics emphasizing moral character and frequently prefer medical paternalism that favors preserving life above all else [27, 28]. In Southern European countries such as Italy and Portugal, laws often align with a form of ontological personalism, whereby human life, beginning at conception, is fully protected [21]. For example, Italian physicians feel legally obligated to continue treatment in all cases until the infant or child

dies [22, 29, 30]. Active life ending is not practiced anywhere in Italy (at least, not openly) [22]. Even as fewer people identify as Catholic, it appears religious tradition still plays an important role in shaping values and attitudes in the predominantly Roman Catholic country [31]. Although a recent poll suggests that public attitudes toward euthanasia might be shifting in favor of the practice, currently, Italian law is still very much in line with Roman Catholic doctrine [32, 33].

North American Context

Emphasis on individualism and autonomy typical of North American societies has produced a significant chorus of voices supporting a person's "right-to-die" on his or her own terms [34-36]. Yet euthanasia for adults remains an extremely controversial subject and views tend to correlate with religious affiliation and race [37, 38]. For example, in 2014, Quebec legalized euthanasia for competent adults with its Act Respecting End-of-Life Care [39], spurring Canada's parliament to pass legislation legalizing euthanasia for adults in June 2016 [40]. A special parliamentary committee examining medical assistance in dying stated that children should not be excluded from the right to euthanasia, referring to a Supreme Court statement that minors have a right "to a degree of decision-making autonomy that is reflective of their evolving intelligence and understanding" [41]. The possible extension of legislation legalizing euthanasia for children in Canada has not yet been resolved, and, at the time of this article's publication, only patients 18 years and older are eligible for medical assistance in dying in Canada [39, 40].

In the US, no national euthanasia law exists. However, between 1997 and 2015, five states—Oregon, Washington, Montana, Vermont, and California—introduced and enacted right-to-die legislation [42-46], and on February 20, 2017, the DC Death with Dignity Act went into effect, making Washington, DC, the sixth jurisdiction in the US to enact an assisted dying statute [47]. Current laws in the US refer specifically to physician-assisted suicide (PAS). PAS involves the physician prescribing or supplying lethal drugs at the patient's request; those drugs are self-administered by the patient with the aim of ending his or her life [48]. This practice contrasts with euthanasia, whereby a physician administers medication to intentionally end the patient's life; euthanasia remains illegal in all US states [48]. It is also important to note that current PAS laws in the US only apply to adults over the age of 17 and require patients to have a prognosis for survival of six months or less [48]. Legislation legalizing PAS in various US states and Washington, DC, was likely spurred by a variety of factors, including strong voices from right-to-die advocacy groups, highly publicized individual cases [49], and data showing increasing support from both the public [50] and some physicians [51].

Physicians' Roles in Patients' Dying Processes

Despite introduction of legislation legalizing PAS in a number of states, the idea that physicians have a role to play in helping patients' dying processes remains contentious,

particularly within the medical community [52-56]. The American Medical Association (AMA) *Code of Medical Ethics* states, "Permitting physicians to engage in euthanasia would ultimately cause more harm than good. Euthanasia is fundamentally incompatible with the physician's role as healer, would be difficult or impossible to control, and would pose serious societal risks" [57]. Moreover, the American Academy of Pediatrics (AAP) staunchly stands against the practice of euthanasia for children [58]. Both the AMA and the AAP acknowledge that unrelieved pain and suffering is an unacceptable state. To manage debilitating symptoms, relieve suffering, and improve quality of life for patients with life-limiting or painful conditions, the AAP advocates access to high-quality palliative care [58]. Nonetheless, there might be a small subset of young patients who experience undue suffering despite maximum therapy, e.g., an adolescent with relapsed and refractory cancer. If such an adolescent, capable of discernment and without significant psychiatric comorbidity, requests euthanasia, on what grounds should the request be denied? This is a difficult question and the medical community's response would likely depend on what it considers iatrogenic or harmful, whether adolescents should be granted equal decisional authority with adults, and whether hastening death can somehow be integrated into the physician's role as healer. If euthanasia is the act of intentionally ending a patient's life, then it would be difficult for the medical community to conceive of euthanasia as iatrogenic, as death would not be an unintentional consequence of a medical treatment or procedure that relieves pain and suffering.

It is generally accepted by the medical community that minors can and should participate in medical decision making commensurate with their developmental level and ability but that the parent or guardian generally has the final authority for decision making. Determination of a minor's capacity for medical decision making is complex and should include evidence that the minor is able to voluntarily make a choice free of undue influence from parents, guardians, or health care professionals; that the child's choice is both reasonable and rational; and that the child understands information relevant to his or her choice [59]. Since it is generally accepted that decision-making capacity is not strictly tied to age, courts have recognized an exception to the common law rule of parental or guardian permission (consent) for medical treatment of a minor called the "mature minor" doctrine [60]. A minor with adequate decisional capacity who is deemed able to understand short- and long-term consequences is considered to be "mature" and thus able to provide informed consent or refusal for medical treatment without parental permission [61]. This doctrine applies only to specific medical decisions and varies by state.

Ethically, a distinction can be made between consent to or refusal of general medical care of more limited consequence, on the one hand, and decisions regarding end of life, particularly about a euthanasia request, on the other. Although an adolescent's cognitive ability and capacity to reason might be similar to that of an adult [62], a decision to proceed with euthanasia is much weightier, given that its consequence is death.

Arguably, deciding whether and how to act upon a request for euthanasia should involve a nuanced and sophisticated deliberative process that allows a person to demonstrate clear understanding that the consequence of his or her request is final and irreversible. What remains unclear is whether adolescents are capable of this level of decision making even if they possess general decision-making capacity and, if they do, whether they should be allowed to make such decisions.

Physicians' Roles in Iatrogenesis in Caring for Dying Patients: Ethical Relevance of Intention, Action, and Results

The issue of euthanasia becomes more complex when one considers that a component of a patient's pain and suffering (and possibly the part that she or he considers unbearable) could actually be a result of medical intervention rather than the underlying illness itself. In such a scenario, does the physician have a responsibility to obviate suffering to which she or he might, at least in part, have contributed? One could easily argue that a physician does have an obligation to relieve this suffering; what remains contentious is whether euthanasia is a reasonable and morally acceptable way to alleviate the suffering when other means have failed.

It is important to note that, although major American medical associations and academies reject euthanasia [57, 58], [palliative sedation](#) (PS) to unconsciousness is considered an appropriate intervention of last resort for patients in very specific situations (e.g., patients with terminal illness or symptoms that are severe, refractory, and not responding to aggressive palliation) [63, 64]. Concretely, PS involves administering medication to patients with severe and refractory symptoms with the goal of lowering a patient's level of consciousness so that she or he is not aware of pain and discomfort [65, 66]. The level of sedation should be proportionate to the patient's level of distress and can lead to unconsciousness. Moreover, according to the American Academy of Hospice and Palliative Medicine (AAHPM), "Because patients receiving palliative sedation are typically close to death, most patients will no longer have a desire to eat or drink [and] artificial nutrition and hydration are not generally expected to benefit the patient receiving palliative sedation" [65].

PS is ethically distinguished from euthanasia by the physician's *intent*, which is to relieve unbearable suffering, rather than to cause death [66]. PS can also be distinguished from euthanasia by its *action*. That is, a physician performing PS gives the right medications in the right dosages and titrates them to effect (comfort), rather than giving lethal doses of medications to cause death [66]. Furthermore, PS usually does not alter the timing or mechanism of a patient's death, as refractory symptoms are most often associated with very advanced terminal illness [65, 66]. The AAHPM [65] specifies that "practitioners who use palliative sedation should be clear in their intent to palliate symptoms and to not shorten survival." Therefore, PS can also be ethically distinguished from euthanasia

in its *result* [66]. In this way, for some physicians, PS can provide a morally and ethically acceptable option for responding to suffering in young patients.

Since the intent of palliative sedation is to relieve unbearable suffering, death following PS could be conceived as iatrogenic because it is an unintended, though not unforeseeable, outcome. Death following PS might challenge the notion that iatrogenesis is, in and of itself, harmful and something to be avoided. In the case of PS, a physician is generally seen as performing an act that relieves intractable suffering; the outcome of death is not perceived as a physician having “caused harm” to a patient, but rather as having helped that patient by relieving suffering and distress.

Conclusion

Understandably, pediatric euthanasia is an emotionally charged and controversial issue for the public and for medical and legal communities. Although these concepts have been discussed and debated for centuries, what it means to cause harm or act in the best interest of a patient remains far from clear. Productive discussions must acknowledge that specific views will ultimately be shaped by past experiences, religious affiliation, sociocultural values, and political ideology. Moreover, debate and difficult discussions about the roles of physicians and iatrogenesis in the care of dying patients must be enriched by the engagement of stakeholders, including pediatric professionals, parents, health professions organizations, the public, and, when appropriate, patients who are minors. Current efforts within the AMA to study aid-in-dying as a potentially acceptable end-of-life option for adults is a positive first step in this direction [67].

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