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Prolonging the life of a brain-dead pregnant mother to save her foetus

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Title: Prolonging the life of a brain-dead pregnant mother to save her foetus.

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UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

FACULTY OF HEALTH SCIENCES

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Abstract

Objective: To defend the claim that it can be morally justified to withdraw life-support to a brain-dead pregnant woman before the foetus is viable for a live birth using the following arguments: that preserving the mother's life to save her foetus may be an infringement on her human rights and bodily integrity, that it can be morally justified to withdraw life-support to a brain-dead pregnant mother as the likely harms of continued life-support outweigh the benefit, and that life-support is a scarce and expensive resource.

Methodology: This is an ethico-legal bioethics study as it will be assessing the South African law and related guidelines regarding the treatment of brain-dead pregnant women with reference to ethical principles and concepts.

Conclusion: Life support is a scarce and expensive resource, and it can produce many complications for a maternal brain death patient. Prolonging the life of a maternal brain death patient using life support measures can violate her legal and ethical rights to autonomy, bodily integrity and human dignity. Therefore, I argue that it is ethically justified to withdraw life support from a brain-dead pregnant woman before her foetus is viable for a live birth.

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Introduction

1.1 Background

In the recent case of *Munoz v. John Peter Smith Hospital* in Texas, United States, the court ordered the body of Mrs. Munoz to be removed from life-support and released to her husband and family. Mrs. Munoz was declared brain-dead at 14 weeks pregnant. For the next 9 weeks, her team of health practitioners kept her on life-support because they believed they were following the instructions of the Texas Health and Safety Code. The Texas Health and Safety Code states that life-support must be provided to pregnant women who are patients (McQuoid-Mason, 2014).

Mrs. Munoz's husband decided to sue the John Peter Smith Hospital, won, and received a court order to have her removed from the life-support. The court ruling was established on the fact that Mrs. Munoz was no longer considered a patient because she was legally and clinically dead (McQuoid-Mason, 2014). In South Africa, there is no code like the Texas Health and Safety Code, but a similar court ruling could take place because according to the National Health Act 67 of 2003, death means brain death. Brain death is when the brain can no longer independently sustain the patient's vital functions without special medical intervention (Brody, 2021)

In a literature review by Esmaeilzadeh et al. (2010), it was found that there were thirty cases in a period of twenty-eight years similar to that of Mrs. Munoz. Of those thirty cases, only twelve viable births of healthy children took place. All thirty cases were provided with the necessary respiratory, nutritional, and physical life-sustaining treatment to aid foetal maturation (Said et al., 2013).

A crucial concern for brain-dead pregnant women is from which gestational age should the pregnancy be supported if at all. The gestational age and foetal age at the time of the maternal brain death are important factors to consider when deciding on somatic support for foetal maturation. It could be argued that the requirement of extended somatic support becomes more justifiable as the foetus approaches viability, especially when the gestational age at which surgical abortion is allowed has been surpassed (Said et al., 2013).

Presently, there is no defined minimum gestational age that would limit a doctor's efforts to provide life support to a brain-dead pregnant mother and her foetus in the United States of America. Nevertheless, there is a correlation between gestational age and the likelihood of survival after birth (Said et al., 2013). One of the longest recorded periods of somatic support was one hundred and ten days/ sixteen weeks reported by Dr Said (2013). Said et al. (2013) then concluded that gestational age at the time of brain death is no longer a significant consideration as medical advances in life support can maintain vital functions for extended periods. These advances in life support and critical care however do not prevent the long list of possible complications to the maternal brain death patients.

1.2 Rationale

In South Africa, a guideline like the Texas Health and Safety Code does not exist. The Health Practitioners Council of South Africa has published guidelines on withholding and withdrawing treatment. However, they do not include guidance on cases of pregnant brain-dead mothers and their foetuses. This means that medical teams

overseeing such cases would need to act according to their discretion without contravening and laws. This study is important because it explores to what extent do factors like maternal and foetal rights and interests count or contribute to decision-making for both the family and medical team.

1.3 Research Question

Is it morally justified to withdraw life-support to a brain-dead pregnant woman before the foetus is viable for a live birth?

1.4 Thesis Statement

I argue that it can be morally justified to withdraw life-support to a brain-dead pregnant woman before the foetus is viable for a live birth.

1.5 Aim

To defend the claim that it can be morally justified to withdraw life-support to a brain-dead pregnant woman before the foetus is viable for a live birth.

1.6 Objectives

- To argue that preserving the mother's life to save her foetus may be an infringement on her human rights and bodily integrity.
- To argue that it can be morally justified to withdraw life-support to a brain-dead pregnant mother as the likely harms of continued life-support outweigh the benefit.

- To argue that it could be morally justified to withdraw life-support to a brain-dead pregnant mother on account of life-support being a scarce and expensive resource.

- To outline, critique and make recommendations on the South African laws and health care regulations about withdrawing life-prolonging treatment.
- To address objections to the arguments such as the potentiality principle and the moral rights of the foetus.

2. Methodology

This is an ethico-legal bioethics study as it will be assessing the law and related guidelines regarding the treatment of brain-dead pregnant women with reference to ethical principles and concepts. The law and relevant health guidelines do not give adequate guidance on cases on how to treat brain-dead pregnant women. Therefore, I will provide ethical considerations on the moral permissibility of withdrawing life-support from a woman like Mrs Munoz.

Literature on this topic was collected and reviewed to achieve the aim of the study. To find the literature, search terms like life-support for brain-dead pregnant mothers, foetal rights, maternal rights, critical care, personhood, potentiality principle, abortion, termination of pregnancy and withdrawing life-sustaining treatment. The literature was collected from databases like Google Scholar and ScienceDirect as well as medical journals like the South African Medical Journal.

2.1 Argumentative Strategy

Preserving the mother's life to save her foetus is an infringement on her human rights and bodily integrity.

In the first chapter, I will discuss and apply the principle of autonomy to the case of maternal brain death. A brain-dead pregnant mother is viewed and perceived as a 'natural' incubator which violates her autonomy and bodily integrity (Said et al., 2013). The violation of these principles is unethical. Therefore, preventing the mother from being a 'natural' incubator by withdrawing life support is ethically justified in order to preserve her bodily integrity, dignity and autonomy.

The ethical principle of respect for persons/autonomy translates to the capacity of a human for self-determination (Freeman, 2011). To qualify as autonomous, one requires the competence to make their own choices. The brain-dead patient does not have the capacity to be autonomous, but she still deserves to be respected. There are individuals legalised to make decisions on her behalf.

There is an order of people authorised by the South African law that are suitable to make decisions on behalf of incompetent patients. The specified order of people goes as follows: spouse or partner, parent, grandparent, adult child, or sibling of the patient (Section 7(1)(b) of the National Health Act 61 of 2003). Inasmuch as the listed individuals are related to the patient, there is no guarantee that they will do what is best for the brain-dead patient and the foetus. There can be many external factors that would influence their decision like the hospital fees, the stage of the pregnancy and the expense of taking care of a baby that is not theirs.

For these reasons, I argue that withdrawing life-support from a maternal brain death patient may be ethically justified in order to preserve her dignity, bodily integrity and her perception by others as a human being. Serving as an incubator would diminish her dignity and bodily integrity.

Against my argument, it can be pointed out that the brain-dead patient lacks the capacity to be autonomous and make their own decisions because they are unconscious and brain-dead.

In response to the objection, I claim that despite being dead and not having autonomy, the brain-dead patient deserves to be treated with respect and her bodily integrity to be maintained. Unlawfully subjecting a corpse to intrusions by 'life support' mechanisms may be construed as a violation of the corpse and a crime under South African law (McQuoid-Mason, 2014).

The likely harms of continued life-support outweigh the benefit.

The second chapter demonstrates the likely harms of life-support for a pregnant woman. It is reported that extended life-support can elicit possible complications like infection, haemodynamic instability, diabetes insipidus, panhypopituitarism, poikilothermia, metabolic instability, acute respiratory distress syndrome and disseminated intravascular coagulation (Esmaeilzadeh et al., 2010). These possible complications would increase the risk of harm to a maternal brain death patient which would be unethical as they would go against the principle of nonmaleficence and beneficence because it is not decreasing or preventing the risk of harm

I argue that it is ethically justified to withdraw life support from a maternal brain death patient because the harms of life-support on a brain-dead pregnant mother, in addition to possible life support complications of a normal patient produce harm and outweigh the benefit of prolonging her life to save her foetus.

As in the preceding section, there may be more harms than benefits to keeping a brain-dead pregnant woman on life-support. The principle of non-maleficence established the obligation to not intentionally inflict harm (Dhai, 2019) and is frequently associated with the health professional's oath of service. This principle entails within it the avoidance of harm to a patient during treatment or research. When harm or injury cannot be avoided, it should be minimised as far as reasonably possible (Dhai, 2019). In compliance with this principle, minimising harm to a pregnant mother is refraining from subjecting her to continued life-support as it has more complications.

A counterargument can be raised by using the case reported by Said et al. (2013) as evidence of successful life-sustaining treatment that resulted in the birth of a healthy baby. In this case, somatic support from a multidisciplinary approach was provided to a thirty-five-year-old brain-dead patient for one hundred and ten days (Said et al., 2013).

To that I respond by highlighting the burden of scarce and expensive intensive care and the long list of possible complications of life support and pregnancy. Lives lost through using this resource for a foetus constitute an unacceptable harm, so that the burden is likely to be far greater than the benefit. It is also important to note that the successful case in the article by Said et al. (2013) earlier is unusual as life support to save a foetus does not have a high success rate.

Life-support being a scarce and expensive resource.

The third chapter reviews and discusses life-support as a resource in South Africa. Life support is an expensive resource. In South Africa, intensive care units (ICUs) which provide life-support services are in tertiary and central hospitals. ICUs are a specialised hospital units for the provision of specialised medical care with strict monitoring and physiological organ support to critically ill patients (Marshall et al., 2017). Intensive care is unevenly distributed as more than seventy percent of the country's ICU beds are in the private healthcare sector and the remaining few are in the public healthcare sector (Mahomed and Mahomed, 2019).

I agree with the literature and argue that intensive care is an expensive and scarce resource. With such few ICU beds in public healthcare institutions and considering the definition and purpose of an intensive care unit, brain-dead pregnant women may not be identified as critically ill patients. Therefore, prioritising such cases over other patients who need critical care can be said to be unfair.

Healthcare provision is free for unemployed persons in a public health hospital but not in private healthcare. Furthermore, the average cost per admission into the neurological section of the ICU was estimated around R201 347 during 2015 and 2016 (Mahomed and Mahomed, 2019). This means that remaining on life-support for extended periods would amount to very high costs for the patient’s family as she most likely would stay in a private healthcare institution. It is also unfair to spend scarce intensive care resources on a maternal brain death patient when there may be other patients that would require the services more and that have a better prognosis than the mother.

Therefore, I argue that it is morally justified to withdraw life support from a pregnant brain-dead patient because the patient may not afford the stay and there are other patients that have a better prognosis than the mother and that would benefit more from the intensive care services.

South African laws and health care regulations about withdrawing life-prolonging treatment.

In the fourth chapter, I will outline the current South African laws and healthcare regulations on critical care and life-support for pregnant women. McQuoid-Mason (2014) concludes in his article 'Overturning refusal of a hospital to terminate life support for a brain-dead patient until the foetus was born: What is the law in South Africa?' that it is a criminal offense to keep a woman on life support to keep a foetus alive. This remains true if the deceased woman has not stated differently in their will and it is against the wishes of the spouse or family.

I have also reviewed some laws like the (Choice) on Termination of Pregnancy Act No. 92 of 1996 and the constitutional rights to dignity and bodily integrity (Section 10 and 12 of the Constitution of South Africa, 1996) that could be relevant to the case of maternal brain death. I claim that these laws are not adequate in providing guidance for cases of maternal brain death. The laws are inadequate because they do not specify whose rights and interests should be preserved in the case of conflicting interests for parties who are incapacitated like in a maternal brain death case.

Furthermore, the guidelines published by the Health Professions Council of South Africa (HPCSA) for withholding or withdrawing life-sustaining treatment do not include

guidance on how to treat a case with a brain-dead pregnant woman and her unborn foetus (Health Professions Council of South Africa, 2016). The lack of guidance for this treatment can hinder quality healthcare from being provided to the brain-dead pregnant patient/s and can undermine the robustness of the medico-legality of the healthcare provided (Heymann, 1994).

I agree with McQuoid-Mason's (2014) argument that it may be lawful to withdraw life support to a deceased pregnant mother. The South African law does not identify a foetus as a person unless it is born alive (McQuoid-Mason, 2014). It could be said that interfering with the deceased mother to preserve her life to save the foetus is a violation of the deceased's human rights and an infringement on their bodily integrity (McQuoid-Mason, 2014). A foetus having no legal status means they have no constitutional rights as they are not regarded as a person until they are born alive. Therefore, they do not possess the legal right to life (Section 11 of the Constitution of South Africa, 1996).

Although McQuoid-Mason (2014) concludes that it is a criminal offense to subject a woman like Mrs Munoz to life-support unless stated otherwise, there is no direct statute prohibiting this. In the absence of definitive legal advice, I will turn to ethical concepts for guidance and provide recommendations for maternal brain death cases based on the ethical concepts discussed throughout the paper.

Objections to the arguments such as the potentiality principle and the rights of the foetus.

In the last chapter, I will focus on several objections to withdrawing life support from a pregnant mother including foetal rights and interests as an objection to withdrawing life

sustaining treatment from pregnant mothers. Personhood is granted at a certain point in the human lifespan, which has significant consequences for health care, law, and personal autonomy (Miklavcic and Flaman, 2017). The foetus as well as the mother have certain moral rights and status afforded to them. However, their moral rights and statuses cannot be equated. This is because their personhood is not equal.

I argue that at times withdrawing life support from a brain-dead pregnant mother is ethically justified because the mother does not possess an equal moral status and equal personhood to the foetus.

The argument could be opposed by indicating how potent the rights of the foetus are, such that they have equal rights as full persons because of their potential to become persons. Others believe that a human becomes a person from the point of fertilization. In addition, the stages of foetal growth represent personhood development rather than a foetus developing into a person (Miklavcic and Flaman, 2017).

I claim, in response to that, that the personhood of a foetus is questionable and often contested. In light of their use of life-support, it undermines the rights of people whose personhood is uncontested. Therefore, it is not justifiable to prolong the life of the mother for the sake of her foetus because she has a higher moral status and personhood than the foetus.

3. Ethics

The study involves no human participants. The assessor committee has provided ethics approval.

Chapter 1: Infringement of autonomy, bodily integrity and dignity.

In this chapter, I will argue that it is morally permissible to remove a brain-dead pregnant mother from life-support because it is infringing on her moral rights to bodily integrity, autonomy and dignity. I will introduce and apply the ethical principle of autonomy and related concepts to support my claim.

In the first section, I will briefly introduce autonomy and argue that despite the mother not having the agency to be autonomous, she has intrinsic worth and still needs to be respected. In the second section, I will state that the mother will require a surrogate decision maker because she cannot provide her informed consent. I will argue that the surrogate decision maker may be influenced and provide misinformed consent that could undermine the integrity and dignity of the brain-dead mother. The third section will be on patient dignity. I will argue that dignity of a patient on life support is vulnerable and could objectify her body.

In the fourth section, I will argue that the mother presents as a 'ventilated corpse' when placed on life support which undermines her bodily integrity. In the fifth section, I will claim that the mother is the primary patient and doctors have a duty to preserve her interests. For the last section, I will address the objection that the mother is dead and does not need to have her dignity, bodily integrity and consequently her autonomy be respected.

1.1 Autonomy

In the first section, I will discuss the normative principle, autonomy. I begin by providing a brief history and introduction to the principle followed by its application to the case of the pregnant brain-dead woman. I will claim that, despite her lack of autonomy, the

mother must be respected. I will explore other concepts related to the autonomy principle like respect for persons and Kantian core ideas. These concepts will emphasise that the mother deserves to be respected despite being brain-dead.

Introduction to autonomy

The principle of autonomy is a well-known ethical concept. It is widely understood as the capacity to self-rule (Dhai, 2019). Autonomy is also identified as the competence to think, decide and act freely and independently (Gillion, 1985). It may appear simple and reasonable to exercise your autonomy, but it can be challenging if the individual is unable to convey their wishes clearly and efficiently. This is exemplified in my argument, in which a brain-dead pregnant mother is unable to articulate her decision to be placed on life support or withdrawn off it in order to save her foetus.

The brain-dead patient no longer has the capacity to self-rule. Due to her diagnosis, she no longer has the competence to think, decide and act freely and independently. When this challenge is experienced, others tend to make decisions and form opinions for the pregnant brain-dead woman. Medical paternalism, which occurs when a practitioner makes choices based on what he or she feels is in the best interests of the patient or when patient decisions are ignored, has a long history in the field of medicine (Murgic et al., 2015). This form of practice was looked down upon because it undermined people's autonomy.

It was widely assumed that introducing the concept of autonomy as the centre of medical ethics would alleviate the problem of medical paternalism in healthcare (Saad, 2018). However, it seems that it has not solved all their issues with patient autonomy

like they assumed it will. For instance, exercising the autonomy principle would deter physicians assigned to a maternal brain death case from treating the patient like a vessel and rather treat them with respect and dignity.

There are two prerequisites for the principle of autonomy to apply. These are liberty and agency. Liberty in this context means freedom from external interference and agency means the ability to take deliberate action (Dhai, 2019). In the case of maternal brain death, the mother does not have agency because she is brain-dead and does not possess the ability to take deliberate action. Thus, she cannot be autonomous because she does not meet the prerequisites for autonomy.

Furthermore, the prerequisite of liberty is often contested because some settings, like family-centric communities or community-based societies, would prevent a person making medical decisions free from external influence (Saad, 2018). As mentioned by Dhai (2019), liberty in autonomy is the freedom to make decisions without any external interference.

If a patient like Mrs Munoz came from a family-centric community, decisions around her treatment would be influenced by that environment. In a family-centred context, the tragedy of the situation may lead the surrogate decision maker or physicians to disregard the patient's bodily integrity and dignity, deciding to keep her alive on life support until the foetus can be safely delivered. Nevertheless, even if the patient's autonomy has been compromised, she is still entitled to protection of her dignity (Iserson, 1999).

Gillion (1985) insists on the distinction between autonomy and respect for autonomy. As previously defined, autonomy is the capacity to self-rule, and respect for autonomy is the moral requirement to respect the autonomy of others (Gillion,1985). I agree with Gillon (1985) that there is a distinction to be made between the capacity to self-rule and the obligation to respect another's ability to make independent decisions. Although the patient may not have the complete potential to be autonomous in the instance of maternal brain death, doctors still have a moral obligation to protect her autonomy even if its diminished.

Respect for persons/autonomy

Beauchamp and Childress (2013) proposed four core ethical principles in the discipline of bioethics and the first principle is respect for autonomy. They proposed this as a standard in which an individual's autonomy in decision-making is respected (Dhai, 2019). As previously mentioned, autonomy is the capacity of an individual to make self-determined choices, therefore, respect for persons/autonomy is valuing a person's self-determined choices and refraining from interfering with their actions unless it is harmful to others (Iserson, 1999).

In the case of maternal brain death, it would be important to protect the well-considered ideas and choices that may have been previously expressed to those around her. Since the maternal brain death case is based on an incapacitated patient, it would be important to consider what the patient would have wanted.

Davis (2002) introduces and argues that if we are morally required to respect a person's autonomy and their healthcare decisions, then we must simultaneously respect their

intentions to make such decisions in advance such as in advance directives. This is known as precedent autonomy. Davis (2002) explains that precedent autonomy is the ability to respect the preferences made earlier by a now incapacitated patient.

Respecting a patient's intention to make healthcare decisions helps in the decision-making process like in a maternal brain death case. For example, if a pregnant mother is diagnosed as brain-dead, her previous intentions on if she would want to be kept on life-support should be considered. The circumstance of being pregnant can affect her previous intentions, but since she is brain dead and no longer conscious of her foetus, it should not influence her previous intentions.

In the Munoz case, this was evident. One of the factors that prompted Mr Munoz to request that his wife be taken off life support was that his wife had previously stated her desire to be taken off life support if she was pronounced brain dead (McQuoid-Mason, 2014).

I agree and claim that there is a duty to respect a patient's autonomy and subsequently a duty to respect the intentions to make healthcare decisions that have been expressed previously. I argue that if a pregnant mother previously expressed that she would not want to be placed on life support if she was declared brain-dead, her wishes should be respected. I also claim that her circumstance of pregnancy may complicate the case but since she is brain dead and did not amend her wishes, her previous wishes should still be respected.

However, precedent autonomy is not universally accepted. An objection could be made that precedent autonomy is difficult to apply since it's unclear if a preference can still be

ascribed to a now-incapacitated patient who never disaffirmed it but no longer understands it. Though that inference cannot be made, then perhaps precedent autonomy should not be respected at all - even so, how can a patient's autonomy be respected by giving them something they don't want, even if they never said no to it? (Davis, 2002).

For example, the precedent autonomy of a pregnant brain-dead patient to have her removed from life support (if she was to ever be pronounced brain dead) is difficult to fulfil because she never included different decisions to different circumstances like in pregnancy.

I respond to this objection by stating that precedent autonomy should still be respected because surrogate decision makers or advance directives are heavily influenced by the patient's beliefs. It is important to note and acknowledge that the patient was of a sound mind when they expressed their previous wishes. Therefore, those wishes should still be respected.

A question could be posed claiming that if the autonomy of a brain-dead patient is diminished, is there still a duty to respect their autonomy. I respond by emphasizing the importance of human dignity and bodily integrity as aspects of autonomy. Honouring a patient's dignity and bodily integrity involves, to some extent, respecting their autonomy.

Kantian core ideas

Kant held humans to the highest regard and went further to state that humans deserved to be respected for merely being human (intrinsic worth). He, along with others, believed

that humans are the better creatures because their “intrinsic worth” and “dignity” made them valuable “above all price” (Rachels and Rachels, 2012).

The difference between humans and non-humans, as stated by Kant, is that humans have ‘dignity’ in which other things lack. In addition, Kant believed that people are irreplaceable, and their death is a tragedy. Conversely, non-human things are replaceable, and no catastrophe occurs if they are broken or lost. (Rachels and Rachels, 2012).

I agree with the claim made by Kant. I argue that the brain-dead patient has intrinsic worth and dignity because she is a human. Her brain death diagnosis and consequent death is a tragedy.

Kant also believed that our duties as humans can be derived from one ultimate formula called the Categorical Imperative. He believed that we could gauge what we ought to do by simply appealing to reason. This principle devised by Kant has two formulae, namely the ‘Formula for Humanity’ and the ‘Formula for Universal Law’.

In this paper, I will refer to the formula of humanity. The formula of humanity is expressed as a duty to ‘act so that you treat humanity, whether in your own person or in that of another, always as an end and never as a means only’ (Rachels and Rachels, 2012). Individuals are valuable and we are morally compelled to treat them always as an end and never as a means only. This simply means that we ought to treat people well by promoting their wellbeing, respect their rights and decisions, and not cause them harm (Rachels and Rachels, 2012).

The formula of humanity does not instruct us to never treat an individual as a means but never as just a means. We can treat someone as a means but simultaneously treat them as an end to demonstrate that they are valuable in themselves. People must be treated with respect if they are to be treated as ends (Rachels and Rachels, 2012).

In the main argument of the paper, the brain-dead patient is serving as a 'natural incubator' which is the only reason she is being kept alive. Consequently, it seems like she is being treated as a mere means to ensuring the survival of her child (an end). Indeed, this shows that her value and dignity are not respected. Her value and dignity have been reduced to just serving as an incubator. When the mother is treated as a natural incubator, it is a violation of her dignity and bodily integrity, and therefore her autonomy (Said et al., 2013). Therefore, making it morally wrong to keep her on life-support for the sole purpose of her foetus.

An objection could arise that the mother may be treated as an end if bringing the child to term is what she wanted. I respond by stating that there is no way to be sure that the mother would want to be kept on life support for an extended period even if she is pregnant. Most individuals declare that should they be diagnosed as brain-dead, they would want to be removed from life
support.

To summarise the argument I have made, autonomy is the ability to self-rule because one has liberty and agency. A person's autonomy ought to be respected because human beings have an intrinsic worth that is their dignity. Furthermore, we ought not to treat human beings as merely a means to an end but as an end in and of themselves

(Categorical Imperative). In the main case of the paper, the brain-dead patient lacks agency but still deserves to be treated with respect. If she is treated as merely a 'natural incubator', she is merely being treated as a means only and not simultaneously as an end. Therefore, it is morally wrong to keep her on life-support for the purpose of her foetus.

1.2 Informed Consent

Since the mother in the central argument of the paper is brain-dead and cannot verbally communicate her choices, she will acquire a surrogate decision maker to make decisions on her behalf as stipulated by the law. Therefore, in the second section of the chapter, I will be reviewing and applying the concept of informed consent to a case of maternal brain death. I will argue that the surrogate decision-maker could be acting under the influence of many factors like emotions and may not act or decide in the best interest of the mother.

Informed consent has become a significantly valued concept in the fields of healthcare and health ethics. This is on account of historical autocratic and paternalistic health practices. Obtaining consent from a patient was never a foreign concept in medicine however it was hardly honoured in the past (Will, 2011). The responsibility to seek informed consent became a duty under current legal and medical standards only when lawyers and philosophers argued an inherent value in honouring a patient's decision-making capacity as an autonomous being (Will, 2011).

As a concept, informed consent is derived from the principle of autonomy and obtaining informed consent respects a patient's autonomy (Dhai, 2019). Within the definition of

informed consent, are four critical components. These are ‘voluntariness, capacity, full disclosure, and understanding’ (Dhai, 2019).

The patient described in the central argument of the paper is brain-dead. Vaguely, this means the patient is unconscious and is would not survive without being supported by life-sustaining measures. It presents a real obstacle for her, her physicians, and the treatment as she lacks the capacity and understanding to decide. This means that she cannot provide her informed consent and her autonomy is at risk. She is also unable to practice the four essential components of informed consent. Her capacity has been diminished because of her brain death diagnosis, and she is no longer capable of understanding.

To combat this problem, certain individuals that are closely related to the patient are given the authority to make the decisions on her behalf. Legally, the order of authority goes from spouse or partner, parent, grandparent, adult child, or sibling of the patient (Section 7(1)(b) of the National Health Act 61 of 2003).

Not seeing conventional signs of death like an absent heartbeat and breathing, cold skin and pallor make it difficult for families to reconcile with the fact that their loved one has been pronounced dead by neurological standards (Johnson and Westphal, 2018). This presents emotional and cognitively difficult challenges for the family which may cause them to make misinformed decisions going forward. I agree and argue that in the case of a brain-dead pregnant mother, her partner or family may not fully comprehend that keeping her on life-support is essentially having the foetus growing inside a 'corpse'.

This is the precise reason as to why Mr. Munoz, in the case of *Munoz v. John Peter Smith Hospital,* advocated for his wife to be removed from life-support. The court ruled in favour of Mr. Munoz because Mrs. Munoz was considered legally and clinically dead (McQuoid-Mason, 2014). In agreement with Mr. Munoz's decision, I argue that it is ethically justified to withdraw a pregnant brain-dead patient from life-support because the foetus is growing inside a corpse and her family may not fully understand this.

The surrogate decision maker of a maternal brain death patient would be under a lot of strain and stress. They would be emotionally drained from having to make decisions for the patient whilst mourning their death at the same time. This could influence their lives for the duration of the treatment should they decide to prolong the life of the patient. The partner or family member of the maternal brain death patient may not make proper informed decisions or informed consent because they would be influenced by their emotional distress.

One may counter by claiming that the maternal brain death patient's family and partner would receive counselling from the hospital to assist them in their decision-making process. However, this may not be enough, and they may still give misinformed consent. Furthermore, their lives would now be continually entwined with the hospital, since they would be required to provide approval for the patient's future treatment plans, resulting in increased stress and mental distress.

Objection to informed consent

One predominant objection with informed consent is that it is portrayed as the solution to medical paternalism amongst other issues. Consequently, it has created a polarity

between an “empowered, informed and autonomous decision-making patient" and an "all-powerful paternalistic authority (healthcare provider)" (Corrigan, 2003). The premise is that implementing and enforcing informed consent will safeguard patients' rights and welfare by allowing them to make free and informed decisions (Corrigan, 2003).

Critics of this “empowered, informed and autonomous patient/all-powerful paternalistic authority” dualism often point out that this understanding of informed consent has minimal to no consideration of social aspects (Corrigan, 2003). Corrigan (2002) responds to this objection by stating that this reduction of informed consent to individualism disregards the cultural context within which the process of informed consent takes place. Moreover, it further promotes the individualism found in Western norms (Corrigan, 2003).

I agree with Corrigan’s (2002) response. The individual afforded the authority to make decisions on behalf of the brain-dead patient will be influenced by their cultural or social understanding of brain death. This is despite information provided by the "all-powerful paternalistic” healthcare professional that would emphasise that brain death equals real death (Corrigan, 2002).

Many cultures do not consider death according to neurological standards, real death. This is because a lack of traditional signs of death makes it difficult to accept that the person is dead. The family of the patient would be affected by the tragedy and could influence the partner of the maternal brain death patient to continue with life-support. This goes against the notion of informed consent because the individual making the decisions has been influenced.

In summary of the argument made, informed consent is the ability for a patient to make free and informed decisions about their health. However, this is not possible with a brain-dead person. As a result, an individual related to the patient will make health decisions on their behalf. At times, this individual will be influenced by their social and cultural understanding of brain-dead because the patient does not exhibit with the normal indicators of death. This might lead to misinformed decisions being made on behalf of the mother, compromising her autonomy.

1.3 Patient Dignity

In this section, I will be discussing the dignity of patients in the intensive care unit. I will argue that their dignity is vulnerable and that being on life-support can violate their dignity and therefore their autonomy. In addition, I will claim that the dignity of a maternal brain death patient is jeopardized and reduced if she is placed on life support for an extended period merely for the survival of her foetus.

Dignity can be described as the worth of every person (Law Insider, 2022). Dignity is important in respecting a patient and their autonomy. Any healthcare professional has an ethical obligation to maintain a patient's dignity (Moen and Nåden, 2015). A pregnant brain-dead patient is not in any control of her circumstances making her dignity and bodily integrity vulnerable. Because of the injuries, sickness, and treatment, intensive-care patients may lose control of their circumstances, have diminished autonomy and integrity, and be isolated from communication (Moen and Nåden, 2015). As a result, an intensive care unit where patients are given life support should be more than just a place to keep them alive, but also a place where they are treated respectively as individuals (Moen and Nåden, 2015).

Findings by the World Health Organisation (WHO) in about forty countries found that most people selected dignity as the second most important concern in nursing care (Lin et al., 2012). As a result, the WHO has prioritised patient rights and maintaining their dignity as one of its goals (Lin et al., 2012). Moen and Nåden (2015) also found that for critical care patients to be treated with dignity by healthcare personnel turns out to be an important component of their descriptions of dignity. Patients' dignity was encouraged by nurses who cared about their patients and how they were treated, making them feel appreciated and respected during their hospital stay (Moen and Nåden, 2015).

These findings show that dignity is an important notion in patient care regardless of their level of consciousness and that patients value being seen, respected and appreciated. It is therefore essential for the healthcare professionals treating a maternal brain death patient to treat her with respect because that promotes the patient's dignity.

Some argue that keeping a brain-dead pregnant woman on life support amounts to her being objectified and treated as a consumable body (Sperling, 2020) which does not preserve her dignity. This argument may be based on the fact that the woman is objectified because her value and purpose have been reduced to functioning as an incubator. She is no longer valued because of her intrinsic worth and symbolic existence but rather just breeding 'body' for her foetus.

Where possible, ethical considerations should prioritize protecting the rights of the pregnant woman who is the primary patient more than the preserving the life of the foetus – an opinion supported by professional organisations like the International Federation of Gynaecology and Obstetrics (Sperling, 2020). Meaning, in instances like

maternal brain death cases, the mother’s interests, dignity and bodily integrity should be more important that the ensuring the birth of the foetus.

Sperling (2020) further affirms that it can be argued that being on life-support infringes on the personal autonomy of a brain-dead pregnant woman as well as her right to respect and human dignity. In view of the mother being labelled a "ventilated corpse", it affects her symbolic existence and influences how others see and imagine her (Sperling, 2020). I agree with the views of Sperling (2020) that the human dignity and autonomy is infringed upon as her symbolic existence is affected because she is seen as a ventilated corpse.

In some situations, a person would indicate (verbally, in an advance directive or living will) that they would not want life-sustaining care if they were ever in a vegetative condition or ruled brain dead — it is considered undignified. This is still true for many women, but they do not foresee becoming brain-dead whilst pregnant. As previously stated, the fact that the woman is pregnant should not be the sole or deciding factor in the decision-making process as she is unaware of the foetus and its progress.

To summarise the points made, dignity is important in ensuring the autonomy of a person. I argued that keeping a brain-dead pregnant woman on life support objectifies her and treats her as a consumable body which does not uphold her dignity and autonomy. Additionally, placing a maternal brain-dead patient on life support for an extended period jeopardizes and diminishes her dignity. Thus, making it morally unjustified to keep her on life-support for the sake of her foetus.

1.4 Patient Bodily Integrity

In this section, I will outline personal/bodily integrity and its relation to autonomy. Furthermore, I will argue that extended somatic support of a brain-dead woman presents her as a 'ventilated corpse' which violates her bodily integrity. Lastly, I will present more arguments from the comparison of such cases to abortion and gestational surrogacy that further explain and support the claim of a violation of bodily integrity.

The concept of bodily integrity is associated to the principle of autonomy. This is because the capacity to decide upon one's body (autonomy) validates and endorses their bodily integrity. Therefore, limiting or infringing on an individual's personal or bodily integrity is ethically wrong since it undermines their autonomy (Pellegrino, 1990).

Said et al. (2013) acknowledged that prolonged somatic support for the pregnant mother ultimately reduces her to just an incubator and diminishes her right to autonomy and bodily integrity. Be that as it may, Said et al. (2013) claim that these issues are moot because the patient is deceased. I disagree with this claim because as mentioned earlier in this section, being reduced to a "ventilated corpse" is degrading and negatively affects her symbolic or significant existence.

The objection that the patient is brain-dead and therefore has no rights to autonomy and bodily integrity dangerously implies that anyone can do as they please with the deceased's body as can be done by the hospital in this case (Nienaber, 2014). I argue that even though the dead are afforded minimal legal rights, their 'interests' like dignity and bodily integrity still need to be respected and observed.

Claims are also being made that the prolonged somatic support for the pregnant mother can be ethically justified if the mother was to simultaneously become a prospective organ donor. Thus, it would be advantageous since the foetus would be the first to benefit from the mother's organs, which in this case would be the uterus (Said et al., 2013). However, others counterargue that the somatic support organ donation medications are poorly understood and therefore can have adverse effects on the foetus. (Said et al., 2013).

Maternal brain death has been compared to abortion because they both result in the death of a foetus (Rahders, 2016). If literature has made this comparison, then some of the arguments that support abortion can be used to support or against maternal brain death. A popular argument for abortion is that women have a moral (and legal) right to make decisions about their bodies (bodily integrity, privacy, autonomy) (United Nations Human Rights, 2017). I claim that equally, maternal brain-death patients' bodily integrity, privacy, and autonomy deserve to be respected.

An unusual comparison can also be made between cases of maternal brain death and gestational surrogacy. Gestational surrogacy is a form of reproductive technology that allows for an embryo fertilised via in vitro fertilisation, to be implanted in a woman who is not genetically related to it (Yale Medicine, 2021). They are similar because in both cases, the women are essentially 'natural incubators. An argument made by Ber (2000) against gestational surrogacy is the depersonalisation of the surrogate mother who becomes a "womb to rent". Being a womb for rent undermines the dignity and bodily integrity of these women.

This argument shows that the mother is being used as a mere means to an end which is ethically wrong. Others counterargue this claim by emphasising that the surrogate mother autonomously chose to do this (Ber, 2000) and therefore is simultaneously being treated as an end. However, I disagree with this claim because most surrogate mothers are poor and therefore are not deciding autonomously as they are influenced by the financial incentive. Hence making this comparison, between maternal brain-death patients and gestational surrogate mothers, as both of their autonomy is undermined.

In summary of the points made in this section, I have outlined personal/bodily integrity and its relation to autonomy. Additionally, I have argued that the prolonged somatic support of a brain-dead woman presents her as a 'ventilated corpse' which violates her bodily integrity and her perception by others. Lastly, I have demonstrated comparisons between abortion and gestational surrogacy to cases of maternal brain death. These comparisons further explain the similar violations of the bodily integrity of women. These said arguments support the claim that preserving the life of a pregnant brain-dead patient violates her bodily integrity and is therefore morally unjustified.

1.5 The mother as the primary patient

In this section, I will be discussing the mother as the primary patient. I will be arguing that the foetus and the mother should be treated as separate patients because they have different moral status and subsequent interests. I will argue that the mother's interests as the primary patient should be preserved because she has a higher moral status than the foetus. Following this, I will claim that the physician has a duty to protect the mother and her interests to autonomy, bodily integrity and dignity as she is the

primary patient. Moral status in this context refers to when an entity has interests that morally matter to a degree for the sake of that entity (Jaworska and Tannenbaum, 2021)

When a mother enters a place of medical care, she is identified as the primary patient. Pregnancy, on the other hand, offers a unique situation in which each course of action must be assessed in light of the impact it will have on both the mother and the foetus at the same time. (Barr, 2019).

Unfortunate circumstances can occur, and the mother could be pronounced brain-dead and therefore dead. After the declaration of brain death and the person has died, the continuation of life-support measures becomes a moot point because there is no life present (Barr, 2019). When the mother has died, the physician's duty to protect and save her life ends. Hence it can be morally justified to withdraw life-support from a pregnant mother.

It is important to acknowledge that the brain-dead patient was once a person, irrespective of the mother no longer being alive. For that reason, her body deserves to be treated with respect (Barr, 2019). It needs to be appreciated that although the mother can no longer feel the pain and discomfort of unnecessary treatments, she can still be harmed by unwarranted bodily intrusions (Barr, 2019). This reason further supports that it is generally unethical to continue life-support after a diagnosis of death has been made (Barr, 2019).

Barr (2019) goes on to contravene the above statements by stating that in the case of a brain-dead pregnant mother, it is permissible to continue somatic support for a certain period for sufficient foetal development. She further states that after the birth of the

foetus, the somatic support of the mother “has reached its desired outcome” (Barr, 2019). This is a clear example of the justification of the mother being treated as a means to an end. As mentioned in section 1.1, it is morally unjustifiable to only treat humans as a means to an end without simultaneously treating them as an end (Rachels and Rachels, 2012).

Another point raised by Barr (2019) is that the mother and foetus are “equally valuable individuals”. This is owed to the fact that the developing foetus is a person with equal moral value to other human beings (Barr, 2019). She further insists that physicians must appreciate that even after the death of the mother, they still have a live foetus patient to treat (Barr, 2019).

I disagree with these reasons because a foetus is essentially a potential person, and the moral status of the foetus is not equal to that of the mother. The personhood of the foetus is questionable and often contested thereby making it unfair to compare it to the incontestable personhood of other human beings. These points will be further discussed later in the paper.

This does not take away from a doctor’s duty to save the life of an endangered foetus. However as previously stated, it cannot be done at the expense of treating the mother to an end as well as at the expense of the respect she is owed. It seems that legally, courts have struggled to find the middle ground when the potential interests of the foetus and that of the mother are opposed (Burkle et al., 2015)

There have been several legal cases reported in the past that question whether the mother and foetus should be treated as separate entities or not. Around the year 1885

in the case of *Die-trich v Inhabitants of Northampton*, a mother wanted to claim against a construction company for the death of her foetus after she had slipped and fallen on a bridge and had a spontaneous abortion. The court did not rule in her favour because the construction company was not liable for her foetus's death as she herself had not sustained any injuries from the fall. The 'single entity rule' was developed from that case to define that a pregnant woman and her foetus are legally considered a single being (Burkle et al., 2015).

This would mean that the mother and the foetus should be treated as one and their interests should not be distinguished even if they possess different moral statuses. This reasoning can be used to support the claim that the brain-dead pregnant mother should be kept on life support, not for her interests to bodily intergrity, autonomy and dignity but for the foetus's interest to life as these interests are said to be of the same weight.

Around 60 years later, the opposite happened. The case of *Verkennes v Corniea*, decided in 1949, was one of the earliest known cases in which the court ordered that the foetus and the mother be cared for separately (Burkle et al., 2015) and therefore should be treated as separate entities. Meaning that the individual interests of the mother do not weigh the same as the interests of the foetus because they possess different moral statuses and level of personhood.

Furthermore, the courts in the 1949 case of *Verkennes v Corniea* stated that regardless of the maternal result, hospitals and attending physicians might be held responsible for providing insufficient medical treatment to the foetus (Burkle et al., 2015). Which would imply that just because the law identifies the mother and foetus as separate entities

does not mean that negligence to the foetus would be permissible. I agree with this statement as my argument does not support negligent and unjust treatment towards the foetus who is the secondary patient but rather that the interests of the mother should be preserved.

Ethics organisations in the United States of America have since expressed that in extraordinary circumstances like the brain-death of a pregnant woman, treatment plans intended for protecting the foetus should not be implemented using court authority as it would be a violation of the pregnant woman's autonomy (Burkle et al., 2015). More recently, the field of obstetric medicine has developed a new model on the dynamic and relationship between a mother and a foetus. It is termed the maternal-foetal dyad which regards a foetus as a distinct patient on its own (Mattingly, 1992). This further supports the notion of the mother being the primary patient.

To summarise the argument I have made, the mother and foetus should be treated as separate patients following the maternal-foetal dyad. In the case of a brain-dead pregnant mother, the mother will typically be identified as the primary patient. So, for this reason, I argue that the physician should treat and protect the mother from being treated as only a means to sustain the life of her foetus (an end). It is morally wrong to treat a person only as a means without simultaneously treating them as an end. Additionally, court rulings in favour of preserving the foetus violate the pregnant mother's autonomy. Therefore, making it unethical to keep the mother on life support to preserve the foetus's life.

1.6 Autonomy, bodily integrity, dignity and brain-death

For the final section, I will address the objection to the main argument made in this chapter. I will respond to objection by highlighting that the patients of maternal brain death deserve to die in dignity.

A typical objection to the chapter argument is that the mother is dead and lacks the capacity to be autonomous, have dignity and bodily integrity.

I respond by indicating that doctors and other healthcare professionals have a responsibility to treat a brain-dead patient with dignity because, while she is no longer "alive," she was once a human being (Barr, 2019). Having once being a human being holds more moral weight than being a potential human being because the mother has a social identity and has lived a life with experiences which she shares with the people she left behind. This is different from the foetus (potential person) because the foetus has not lived a life with experiences shared with others. This idea is further discussed in chapter 5.

As well as the autonomy, rights, and respect for a brain-dead patient should not be overlooked.

Maternal brain-dead patients are perceived in various ways by healthcare practitioners including but not limited to pregnant patients or cadavers/cadaveric incubators. This does not eliminate the harms, wrongs, or indignity they may still be at risk of receiving (Dickens, 2011). The brain-dead pregnant mother is kept on life-support not for her welfare but for the sake of her unborn foetus. As a result, her body is in danger of being utilized as a tool, an object, or an instrument (Dickens, 2011).

The International Federation of Gynaecology and Obstetrics led by Dickens (2011) recognises and agrees that women possess the right to die in dignity. Likewise, the intention to rescue a foetus does not absolve healthcare providers of their responsibility to respect the main patient's right to dignity —the woman (Dickens, 2011).

To summarise the points of the section, an objection was raised that the mother is dead and lacks the capacity to be autonomous, have dignity and bodily integrity. I responded that the brain-dead pregnant patients should have their bodily integrity, dignity and consequently their autonomy to be respected and upheld despite their diagnosis of brain death.

1.7 Chapter conclusion

In conclusion of the arguments made in this chapter, I have argued several claims to defend that preserving the pregnant mother's life to save her foetus is an infringement on her autonomy, bodily integrity and patient dignity. I have done this by arguing that:

(i) Human beings have an intrinsic worth that affords them the right to their autonomy and to be respected. A maternal brain death patient is reduced to a 'natural incubator' which is not morally right as individuals cannot be treated as only a means and not simultaneously as an end.

(ii) A pregnant brain-dead patient cannot make informed decisions for herself. As a result, an individual related to the patient will make healthcare decisions on her behalf. At times, this individual may be influenced by their social or cultural understanding of death because the patient doesn't present with the usual signs of death. This could lead to misinformed decisions being made on the mother's behalf.

(iii) Dignity is important in preserving the autonomy of an individual. Keeping a brain-dead pregnant woman on life-support objectifies her and treats her as a consumable body which does not preserve her dignity and autonomy.

(iv) Preserving the bodily integrity of a patient promotes their autonomy. Placing the maternal brain death patient on life support presents her as a ‘ventilated corpse’ which diminishes her bodily integrity and taints her perception by others.

(v) According to the maternal-foetal dyad, the mother and foetus are two separate patients. In maternal brain death cases, the mother will be identified as the primary patient. Thus, the physician has a duty to treat and protect the rights and interests of the mother as the primary patient from being treated as a mere means to sustain the life of her foetus.

(vi) A typical objection could be raised that the mother is dead, with no ability for autonomy, dignity, or bodily integrity. Despite the mother’s diagnosis of brain death, I argued that the patient's bodily integrity, dignity, and hence autonomy should be honoured and protected.

Therefore, it is permissible to withdraw life support from a pregnant brain-dead patient in order to preserve her rights and interests to autonomy, bodily integrity and human dignity.

Chapter 2: The likely harms of continued life-support outweigh the benefit.

In this chapter, I will argue that the harms associated with continued life-support outweigh the benefit. I will use the normative principles of beneficence and nonmaleficence to support my argument.

In the first section, I will introduce and explain why the beneficence principle applies to this case. In the second section, I will introduce and explain the nonmaleficence principle and its application to the maternal brain death case. For the third section, I will argue that there are many harms of extended life support for a brain-dead patient and several additional harms associated with the extended life support of a pregnant mother. Lastly, I will address the typical counterargument to the overall argument made in this chapter that is successful births of viable foetus have occurred despite the complications of pregnancy, brain death and extended life support.

2.1 Beneficence applied to a maternal brain death case

In the first section, I will introduce, discuss and explain the principle of beneficence and its relevance to the maternal brain death case. This is important because I will use the principle of beneficence, the duty to do good, to argue that withdrawing life-support from a pregnant brain-dead woman is morally justified.

Beneficence is one of the four principles in the Principles of Biomedical Ethics. It refers to the moral duty to do good or act in the best interests of others (Freeman, 2011). It was established by Beauchamp and Childress (1994) as one of the four core ethical principles for ethical decision-making. This principle imposes a duty onto the physician to always promote the wellbeing and welfare of the patient (Dhai, 2019). Beneficence is

not only the active promotion of good but also includes prevention or removal of harm (Freeman, 2011).

The notion of beneficence is not alien to traditional morality; in fact, it is derived from it (Dhai, 2019). It represents deeds or personal characteristics of “mercy, kindness, generosity, and charity” (Beauchamp, 2019). The history of ethical theory shows key features of beneficence being used in several ethical theories. However, these ethical theories develop radically different conceptual and moral interpretations of beneficence. Examples of this are seen in utilitarian theories and the opposing Kantian theories (Beauchamp, 2019).

Application of Beneficence principle

John Stuart Mill declares the concept of utility, often known as the “greatest happiness” principle, to be the fundamental underpinning of morals. In short, the principle states that acts are morally right in proportion to how they promote the pleasure of all persons and bad in proportion to how they promote the opposite (Beauchamp, 2019). In addition, Mill presents this principle as absolute and superior. This is a simple and straightforward interpretation of the beneficence principle because the benefit is maximised, and harm is minimised (Beauchamp, 2019).

I agree with both Mill about the duty to promote of goodness. He agree that the duty to do good extends beyond just the physician and applies to everyone. In the case of maternal brain death, the physician must act for the benefit of his primary patient and the family must promote the best interests of their loved one. By doing this, they would be acting in accordance with the beneficence principle and therefore acting morally.

‘Best interests’ model and Beneficence

While the legal status of a brain-dead patient is that of a dead body, in clinical practice, brain-dead patients are frequently handled and thought of as patients who have irreversibly lost capacity, and courts have occasionally adopted this approach. It could be more appropriate to employ a decision-making model comparable to the "best interests" model that is utilized when patients lose capacity (Warren et al., 2021).

In this model, clinicians would gather information about the patient from the family and consider the benefits and disadvantages of keeping the patient on life support. With this information, they can ascertain what is in the best interests of and what would benefit the patient more. As I will demonstrate below, keeping the mother on life support causes more of a burden than a benefit and therefore is not in the best interest of her or her surrogate decision-maker.

Between the mother and the unborn foetus, a question might be asked as to who's best interests should be promoted (Nienaber, 2014). The best interest approach is frequently utilized in South African law, particularly in the children's act. The Children's Act 38 of 2005 states that all activities involving a child must be in the child's best interests. Which means that all actions should be providing a benefit to the child or protecting the child from harm.

One may argue that the unborn foetus' interests should be taken into account just as much as the mothers. My argument considers the foetus’ interests, but they may not weigh as much as the mothers because of its questionable personhood. There are many perceptions of personhood, but for the context of this paper, I will be referring to

moral personhood of which entities judged on morally permissible or impermissible actions (Alzheimer Europe, 2022). The foetus is not recognized as a person under South African legislation, and hence is not protected by the Children's Act. I will discuss these points later on in the paper.

In this section, I aim to argue that the mother's interests should be promoted. The South African law does protect the pregnant brain-dead mother's dignity regarding the desecration of her corpse or that society may not do as they please with her body (Nienaber, 2014). Nienaber (2014) argues that based on these perspectives, it is conceivable to claim, at the very least, that the law protects some of the corpse's interests (to being treated with dignity), even if these are not 'rights' in the traditional sense. I fully agree with Nienaber (2014) that the law does protect the interests of the mother and therefore, the physicians and family of the patient should follow suit and be guided to pursue the same goal.

The application of the Beneficence principle continued

It is often debated whether the principle of beneficence is a moral obligation or moral ideal. Several ethical theorists argue that the duty or obligation to be beneficent requires great sacrifice and generosity that is extreme (Beauchamp, 2019). In the case of maternal brain death, the family may feel like they are making a great sacrifice by withdrawing life support and causing the death of the foetus. They could feel like they are experiencing a greater loss by losing both the mother and the child instead of just the mother.

The medical professionals assigned to a maternal brain death case could feel like their morals and values are compromised if they advocate for the withdrawal of life support. They could feel like the duty to be beneficent at all times requires a lot from them of it goes against what they believe.

Some ethicists, on the other hand, have maintained that humans have no universal beneficence responsibilities, only beneficent obligations arising from professional jobs or other specified places of duty that are not part of ordinary morality (Beauchamp, 2019). This would apply to the hospital staff treating a maternal brain death patient. Due to their professional oaths, they have a duty to always act and promote goodness for their patient. And if they cannot fulfil that duty because it goes against their beliefs or morals, they can refer the patient to another professional who can treat and protect the patient (South African Medical Association, 2021)

Bernard Gert believes that the only moral obligations, aside from those imposed by professionals and other stations of duty, are those imposed by moral rules that forbid harm or evil. The general objective of morality, according to Gert's view, is to reduce the cause of evil or harm, not to promote good (Beauchamp, 2019). In accordance and agreement with Gert’s view, the surrogate decision maker of the brain-dead patient has a duty to reduce the cause of evil or harm. This is similar to the nonmaleficence principle which I will expand on later in the chapter.

Beneficence has been at the cornerstone of the institution of medicine. If the ultimate objective of clinical medicine is healing, which is a beneficent goal, then medicine is arguably an inherent beneficence enterprise that dictates the physician's professional

responsibilities and qualities (Beauchamp, 2019). Thus, physicians treating patients like Mrs. Munoz have beneficence obligations towards their patients. They have the moral duty to promote the overall good and wellness of their patients.

This encompasses several positive actions like protecting and defending patient rights, preventing or minimising harm, removing conditions that lead to harm, rescuing patients in danger, and helping the disabled (Varkey, 2021) which has been aforementioned. For example, a pregnant brain-dead patient who is placed on life support is at a risk of being harmed by several complications associated with life support. These complications could even harm or result in the death of the foetus. The physician therefore has a duty to inform and advise on decisions that result in the least amount of harm for the patient and their family.

It can be counterargued that keeping a maternal brain death patient on life support is a beneficent act because it prevents the death of the foetus. Some theorists, like Pellegrino, have restricted what counts as a medical benefit for patients. He claims that what is considered beneficial to the patient has been limited to healing, preventing injury, disease and death (Beauchamp, 2019).

In essence, this objection claims that prolonging the life of the pregnant brain-dead patient is more beneficial than withdrawing the treatment because it prevents the death of the foetus. But at what cost? Preventing death is not the ultimate beneficent act especially if the family and the patient will suffer greatly as a result.

I respond by stating that the range of benefits to a patient is broader than this. Beneficial acts can include providing cosmetic surgery for aesthetic purposes and improving

mental health as well as complying with requests for physician-assisted suicide for terminally ill patients to relieve them from their pain and suffering (Beauchamp, 2019).

The controversy, therefore, is found in the scope of what counts as medical beneficence because the death of a patient can produce the net benefit (Beauchamp, 2019) like in the case of terminally ill patients or brain-dead pregnant patients. Withdrawing life support from a patient like Mrs Munoz may produce a net benefit by preventing harm from life support measures and sparing the family of a high hospital bill.

An objection could also arise that since the pregnant patient is brain-dead, she can no longer be benefited because she is not conscious to experience it. I respond by restating that the range of beneficent acts is large. The brain-dead patient can still experience beneficence by being having her dignity and bodily integrity protected. She can also experience beneficent acts by not having her body harmed and intruded with life saving measures.

To summarise the points raised in this section, beneficence is a normative principle that places a duty to promote goodness and prevent harm. The physicians and nurses treating brain-dead pregnant patients have a professional duty to promote overall goodness for their patients. The range of beneficent actions is broader than healing and preventing death, and in some cases, withdrawing treatment can be beneficial to the patient.

2.2 Nonmaleficence applied to a case of maternal brain death

In this section, I will present and apply the principle of nonmaleficence to advance the main argument of the paper about withdrawing life support from a pregnant mother. I

will argue that there is a duty by health professionals to reduce harm. In addition, I will argue that life support measures can produce harm to the foetus and the mother and withdrawing this treatment can reduce the overall harm.

Nonmaleficence is one of the four principles presented by Beauchamp and Childress in their principles of biomedical ethics. In essence, it is a duty to refrain from purposefully harming others (Dhai, 2019). The common belief is that anyone providing care to a patient has an overriding responsibility not to harm them (Dhai, 2019). It is therefore warranted to explain what harm means regarding this principle.

The terms hurt and injury are often associated with nonmaleficence (Dhai, 2019). Harm is defined as “impairment of structure or function of the body and/or any deleterious effect arising therefrom. Harm includes disease, injury, suffering, disability and death (World Health Organisation, 2011) among other things. In addition, injury not only refers to harm but extends to injustice, violation, or wrongdoing. Nonmaleficence as a principle requires that unnecessary risk of harm is prevented and that when risk is unavoidable, it be minimized to the greatest extent reasonably possible (Dhai, 2019).

The harm to the mother should be limited to her diagnosis. Subjecting her to life sustaining treatment results in intrusions to her body which increases the harm inflicted onto her. This harm includes the violation of her bodily integrity and dignity. And as previously mentioned in section 2.1, the nonmaleficence principle goes beyond preventing harm and includes minimizing the harm to the greatest extent reasonably possible.

I argue that jeopardising the dignity and bodily integrity of the maternal brain death patient is harmful because it's a violation and an injustice. Therefore, going against the principle of nonmaleficence. Because the principle of nonmaleficence is an important concept in medicine, it is essential for the physician treating a patient to prevent or minimise the harm experienced by the patient.

As mentioned in section 2.1 , this principle is closely related to beneficence. This is because the common objective in both principles is the prevention of harm. However, beneficence requires more than the principle of nonmaleficence because it additionally requires an individual to take positive actions to benefit others (promote good) (Freeman, 2011). Obligations of nonmaleficence are not inflicting harm and not imposing risks of harm, and obligations of beneficence are to promote good and to prevent or remove harm (Beauchamp and Childress, 1994).

One could object and argue that the that prolonging the life of the mother to save the foetus is conforming to the principle of nonmaleficence because the death of the foetus is prevented. Additionally, it could be said that it is more harmful for the foetus to die than for the mother to be poked and prodded by life support machines. I disagree and respond by stating that the foetus is not a full person, and the dignity and bodily integrity of the mother should be promoted and protected. Furthermore, because the mother is brain-dead, she is unaware of the foetus's existence and hence cannot be affected by its death.

To summarise the points made in this section, I have presented and discussed the principle of nonmaleficence. I have also argued that under the nonmaleficence principle,

not withdrawing life-support from a pregnant brain-dead patient is morally unjustifiable because undermining her dignity and bodily integrity is a violation and therefore a harm.

2.3 Harms of Life Support for a pregnant brain-dead mother

In this section, I will state the types of life-support available for brain-dead patients as it is significant in understanding the complications. I will also discuss the moral distinction between withholding and withdrawing treatment. In addition, I will discuss the possible complications that can occur should a pregnant woman be on life-support for an extended period.

Types of life-sustaining treatments

A diagnosis of brain death is a very serious diagnosis. Essentially, it means that a patient's brain is dead and can no longer independently sustain their vital functions without special medical intervention (Brody, 2021). In this case, the patient would need to be administered life-support to keep them alive. A pregnant patient diagnosed with as brain-dead is legally dead and cannot independently support their vital bodily function and would need special medical treatment to keep them alive.

Life support is a form of treatment that refers to several types of machinery and interventions that keep a person's body alive (Watson, 2019). This route of treatment does not only require machinery but healthcare personnel to monitor the patient and ensure that the patient is always stable. A case of maternal brain death would also require a skilled multidisciplinary team of healthcare professionals (Said et al., 2013) to ensure that all the bodily systems that would support the patient's pregnancy are monitored closely.

Life support comes in different forms (Watson, 2019), but I will discuss the different forms relevant to a maternal brain death case namely mechanical ventilation and artificial nutrition. Mechanical ventilation is provided to patients who suffer from severe lung conditions or those who cannot breathe on their own. The mechanical ventilator takes over the job of breathing and aiding with gas exchange and is very invasive (Watson, 2019).

A patient like Mrs Munoz would require mechanical ventilation because her brain death diagnosis would render her incapable of breathing on her own. The use of this machinery also presents risks to the patient that can be detrimental to her and her foetus.

Artificial nutrition is feeding nutrients to someone unnaturally by directly inserting the nutrients into the unconscious patient's body (Watson, 2019). This type of life sustaining treatment is provided to patients because they can no longer feed themselves naturally or are unconscious. Artificial nutrition as a form of life sustaining treatment is necessary in a maternal brain death patient because they cannot feed themselves and the nutrition is essential for the foetus and its development.

It would require meticulous measurements to ensure that the foetus is always receiving adequate nutrition. Nutrition is an important element in a foetus' development. Which further emphasises the need for a skilled multidisciplinary team of healthcare professionals to monitor the foetal development and ensure the right amount of nutrients are given to the mother and baby.

The different types of life-sustaining treatments are sometimes believed to prolong the dying process unnecessarily in patients with poor prognoses like in maternal brain death, which has recently become a matter of concern and has led to the pointless suffering of patients (Eschun et al., 1999) and wasted healthcare resources (Siegel, 2009) that could have benefitted other patients who would have received more value from them.

Is providing life support to the patient futile?

Providing life-sustaining treatment to a patient that will not recover like a maternal brain death patient, can be regarded as futile. The concept of medical futility is a contentious topic, but any fair definition should define a situation as futile if there is no effective therapy or possibility of recovery (Siegel, 2009). Simply put, medical futility pertains to a physician's predictively stating, from available data, that further therapy will not improve the patient's condition as a result of irreversible disease or injury, and so should not be undertaken (Bernat, 2005).

In a maternal brain death case, the prognosis of the mother will not be improved by placing her on extended life support and should not be continued. However, the pregnancy does add an additional consideration. Available data on maternal brain death cases do reflect positive outcomes but not for the mother who is the primary patient but rather the foetus she is carrying.

The question of medical futility could then be directed to the unborn foetus of the pregnant brain-dead mother. One could ask whether the life support treatment is still futile if it will result in the successful birth of the foetus (a positive prognosis). Yet, the

treatment is not provided to the foetus but rather for the foetus. It would be considered futile to the mother and probably the opposite for the foetus. Nevertheless, there is no guarantee that proving this treatment will result in the successful birth of the foetus.

Futile treatment is fundamentally unethical, as it costs money and may cause pain without providing any benefit (Siegel, 2009). In the maternal brain death case, the pregnant mother may be subjected to intrusive procedures and machinery that could increase her risk to harm. These intrusive procedures and machinery threaten her bodily integrity and do not benefit her but rather benefit her unborn foetus.

According to some researchers, physicians have an ethical obligation not to provide futile therapy based on concepts of justice (Bernat, 2005). I agree with Bernat (2005) that it is unethical to provide futile treatment to the brain-dead pregnant mother based on the concept of distributive justice, and therefore physicians should not provide the therapy. I will elaborate on the fairness or lack thereof of providing this treatment to the maternal brain death patient at a later point in my paper.

Withholding vs withdrawing treatment

Following the discussion of life-sustaining therapies and futility for a brain-dead pregnant woman, the distinction between withdrawing and withholding life-sustaining therapy is raised. A large majority of the deaths in intensive care units today occur as a result of a choice to discontinue life-sustaining care, and end-of-life decision making has become a common and significant part of modern intensive care medicine (Vincent, 2005).

According to Beauchamp and Childress (1994, p. 199), there is no moral distinction between withholding (not initiating) and withdrawing (ceasing) life-sustaining treatment. Meaning there is no ethical difference that would render one act more immoral than the other. This ethical distinction is questioned because some people believe that withholding treatment from a patient is less unethical than withdrawing treatment.

Beauchamp and Childress (1994, p. 199) believe there is no difference and conclude that treatment can always permissibly be withdrawn if it can permissibly be withheld. Decisions on whether to start or cease therapy should be based on the rights and welfare of the patient, as well as the advantages and disadvantages of the treatment (Beauchamp and Childress, 1994).

I agree with Beauchamp and Childress that there is no ethical difference between withdrawing and withholding treatment. Withholding and withdrawing life sustaining care renders the same result. In the case if maternal brain death withdrawing treatment may be better by granting the family more time to come to accept the condition of the mother and to make decisions about her and the foetus.

This is contrary to some beliefs shared by others. Some of the medical professionals feel justified in withholding treatments they have not commenced but not with treatments that have been initiated. They believe that decisions to withdraw life support reflect the belief that doing so makes them more accountable and liable for the patient's death (Beauchamp and Childress, 1994) because they actively stopped treatment. It might be because one action is a passive act by not interfering medically (withholding),

while the other is an active act by physically disconnecting the patient's life support treatment (withdrawing).

I still maintain that there is no ethical difference between withdrawing and withholding life support. Different circumstances and developments of medical cases can require either withdrawing or withholding of treatment. Physicians assigned to a maternal brain death case can be hesitant to suggest or remove life support from the pregnant brain-dead patient however because of their view on withdrawing or withholding life support. Therefore, highlighting the lack in an ethical difference between withdrawing and withholding may reduce the guilt and hesitancy of withdrawing treatment.

Vincent (2005) contends that withdrawing life support is ethically permissible for various reasons; however, I will focus on one of them. He claims that if withdrawal of treatment was not allowed, the intensive care units would overflow with terminally ill patients being treated with expensive treatment that is no longer beneficial to them. This is referred to as medical futility, which is the argument I presented in the preceding paragraph.

Moreover, Vincent (2005) argues that not permitting life support therapy goes against the four principles of Principlism. The arguments made by Vincent relating to the withdrawal of care are similar to those I have made in this paper. In brief, he argued that not allowing withdrawal of care goes against the principle of autonomy, nonmaleficence, beneficence and justice.

According to Vincent (2005), it goes against autonomy because no one wishes to remain on life support if they have no hope of recovering, resulting in many people making advance directives because they do not want to become undignified and be

burdensome to others. It also goes against the principle of beneficence because the life sustaining treatment is no longer advantageous to the patient.

It violates the principle of nonmaleficence because even if sedation is provided to reduce the pain experienced by the patient, there still is some discomfort and distress (Vincent, 2005). It goes against the justice (distributive) principle because an intensive care bed may be obstructed if ineffective treatment is continued, making it unavailable for another patient who would benefit from intensive care. Furthermore, the expenditures of ineffective care might be better spent elsewhere (Vincent, 2005). Similar arguments have been demonstrated in this paper, as I previously mentioned, indicating that I concur with Vincent's (2005) points.

Harms of Life Support

Life support is a form of treatment that extends the life of a patient; however, it can cause some harm to the patient. A maternal brain-dead patient will require a great deal of treatment for both herself and the foetus, making life support treatment a little more challenging. This presents more risks to the pregnant mother compared to a regular brain-dead patient making it an important element to consider when contemplating treatment.

Stabilising physiologic variables changed by the mother's neurologic injury and its therapy, treating the physiologic consequences of brain death, and restoring the favourable physiologic changes present throughout a normal pregnancy are all examples of the anticipated somatic support for the mother and foetus (Powner and

Bernstein, 2003). As mentioned earlier in section 2.3 , this is more than the anticipated somatic support for a regular brain-dead patient.

The first course of treatment that would be administered to the brain-dead pregnant patient focuses on the mechanism that caused the brain accident (Powner and Bernstein, 2003). This course of treatment may entail exposing the mother to a range of medicines, fluid/electrolyte changes, and other treatments to stabilise her. The treatment could pose a risk to the foetus before the life support commences (Powner and Bernstein, 2003).

In the article “One life ends, another begins: Management of a brain-dead pregnant mother-A systematic review”, Esmaeilzadeh et al. (2010) highlights many of the possible complications of extended life-support on a pregnant woman that may be harmful to her and the baby. Some of these include but are not limited to infection, haemodynamic instability, diabetes insipidus (DI), panhypopituitarism, poikilothermia, metabolic instability, acute respiratory distress syndrome and disseminated intravascular coagulation (Esmaeilzadeh et al., 2010).

I will discuss the possible complications that could occur and argue that these complications pose a significant risk to the mother and the foetus. In addition, I will point out that the risks of continued life support outweigh the benefit and therefore it is ethically justified to withdraw the life support because it goes against the principle of beneficence and nonmaleficence.

Cardiovascular compromise

Upon brain death, cerebral herniation generates massive sympathetic activity and, as a result, significant hypertension (Mallampalli and Guy, 2005). This means that the mother's brain tissue swells and migrates to the adjacent part of the brain which stimulates her sympathetic nervous system. When the sympathetic nervous system is triggered, the blood pressure of the mother will increase.

Following this, the sympathetic discharge will stop which will decrease the mother's blood pressure resulting in hypotension. As a result, the mother's vasomotor and haemodynamic stability is compromised meaning the mother's blood flow is unstable. This becomes a critical condition because haemodynamic support is needed in maintaining proper blood flow to the uteroplacental system and for foetal viability (Mallampalli and Guy, 2005).

There are a variety of treatments available to control the mother's haemodynamic instability. Intravenous fluids, inotropic medications, and vasopressor agents are among the options. It should be emphasized, however, that some of these treatments like the vasopressor agents have been proven to cause uterine vasoconstriction, which can further impair the uteroplacental system and endanger the foetus (Mallampalli and Guy, 2005).

It is clear that the mother's brain injury could cause a disturbance in blood flow to her and to the foetus which places it at a critical state. Furthermore, the medication used to resolve this condition poses a danger to the foetus because it can further restrict blood flow to it. The foetus is dependent on the mother and need unrestricted blood flow to provide it with the necessary oxygen and nutrients for optimal growth and viability.

Being brain-dead means having reduced mobility which leads to a hypercoagulable state, slower venous blood flow, and the possibility for intrinsic vascular damage (Powner and Bernstein, 2003). Meaning that being immobile, like when you are brain-dead, causes the blood to clot more frequently, the venous blood also moves slower and can cause damage to the veins and arteries. If these conditions occur, that also restricts the blood flow of the mother and the blood flow to the foetus, thereby endangering the foetus.

In addition, the pregnancy raises the risk of deep vein thrombosis five times greater than in healthy pregnant women which means the mother is at a high risk of a pulmonary embolism (Powner and Bernstein, 2003). Which can cause her to die and subsequently the foetus to die as well.

It remains a huge concern because venous thrombosis and disseminated intravascular coagulation were noted by Mallampalli, Powner and Gardner (2004) as some of the major causes of cardiac arrest in pregnancy. Hence the brain-dead pregnant mother's increased risk of cardiac arrest.

For this reason, I argue that it is justified to withdraw life support from the pregnant brain-dead patient because her brain injury will cause a problem in blood flow which endangers the foetus (increasing risk of harm). Moreover, the medication used to stabilise the mother's haemodynamic instability is unsafe for the foetus. This goes against the beneficence and nonmaleficence principle that states that goodness should be promoted, and harm should be prevented or reduced.

Haemodynamic instability

Approximately 50% of the brain-dead pregnant patients exhibit haemodynamic fluctuations such as severe hypertension and hypotension, which can cause considerable foetal physiological stress (Powner and Bernstein, 2003).. As the mother progresses to a state of being brain-dead, the fluctuations in her blood pressure pose a risk to her foetus (Powner and Bernstein, 2003).

Powner and Bernstein (2003) found hypotension in all the women in their research indicating a high likelihood of such a consequence occurring. The foetus is at high risk during periods of hypotension. This is caused by the uterine vasculature's inability to autoregulate compared to other parts in the circulation (Powner and Bernstein, 2003). If not managed, haemodynamic instability can result in hypoxia, brain damage, and even death in the foetus (Powner, 2005).

There are numerous physiological changes present in pregnancy that are not usually found among other intensive care patients which are essential to restore and maintain for the safety of the mother and the foetus. These include increased cardiac output, heart rate, minute ventilation, renal excretion of bicarbonate, glomerular filtration rate and oxygen consumption. As well as decreased systemic vascular resistance, colloid oncotic pressure and serum creatinine (Powner and Bernstein, 2003). If these physiological changes are not maintained, they could harm the foetus.

Based on this threat to the mother and foetus, I claim that it is justified to withdraw life support. Putting the mother through extended life support with an increased risk to her foetus seems unjust cause she is subjected to these intrusions that could lead to the same conclusion if the life support was withdrawn.

Respiratory complications

Mechanical ventilation must be given special consideration in cases of maternal brain death. Carbon dioxide partial pressures, tidal volume, and respiratory rate in the mother should all be kept within normal pregnancy ranges. The pregnant woman develops hypocarbia (low blood carbon dioxide levels), which is caused by an increase in tidal volume and respiratory rate.

The low blood carbon dioxide levels can produce mild or moderate respiratory alkalosis which is a common finding in pregnancy (Powner and Bernstein, 2003; Esmaeilzadeh et al., 2010). If the maternal alkalosis is unresolved and the mechanical ventilation is not adjusted accordingly, it can result in the death of the foetus (Sachs et al., 1987)

If the maternal carbon dioxide partial pressure is not monitored and adjusted accordingly with mechanical ventilation, it can result in respiratory complications. These are a high maternal partial pressure of carbon dioxide, insufficient gas exchange across the placenta, or insufficient uteroplacental or umbilical blood flow causing foetal respiratory acidosis and at times, foetal death. Therefore, keeping the patient's respiratory rates and parameters within the normal ranges of pregnancy will ensure normal blood flow and gas exchange in the uterus, and result in normal foetal carbon dioxide levels (Powner and Bernstein, 2003).

There are several elements that contribute to sufficient oxygen delivery to the foetus. If any determinant of oxygen supply is impaired or if foetal anaemia develops or if internal foetal blood flow is affected, the foetus is at risk for hypoxia and possibly death (Powner and Bernstein, 2003).

For that reason, I claim that withdrawing life support is morally justified because respiratory complications that are usually compensated for in a normal state are difficult to control in a brain death case.

Infection

Infection is very common in intensive care patients. In an international prospective cohort study by Alberti et al. (2002), there was a crude incidence of 18,9% of infection in intensive care patients hospitalised longer than twenty-four hours. In a systematic review by Dodaro et al. (2021), infection was the most common complication related to brain death in pregnancy at a rate of 69%. And so, a brain-dead pregnant mother who has been in critical care for a long period is highly vulnerable to infections that might harm her and her foetus.

If a pregnant brain-dead woman is placed on life support, she will have multiple puncture sites from attempted and successful injections as well as invasive insertions of equipment (ventilation pipe and urinary catheters) that will expose her to infection. The many sites of bodily intrusion increase the risk of infection that can be harmful to the mother and the foetus. The findings by Alberti et al. (2002) and Dodaro et al. (2021) indicate that there is a very high chance that the patient in the maternal brain death case will develop an infection from prolonged life support.

Common sites of infection included the respiratory, digestive, urinary tract and primary bloodstream (Alberti et al., 2002). There are typically three common sources of infections to be considered during prolonged somatic support. These are recurrent pneumonia caused by ventilators, bladder and kidney infections caused by urinary

catheters, and septicaemia caused by intravascular catheters (Esmaeilzadeh et al., 2010).

. Antibiotic resistance is common in illnesses caused by these infection pathogens, making treatment difficult for the brain-dead pregnant mother (Esmaeilzadeh et al., 2010).

Esmaeilzadeh et al. (2010) suggests that maternal infections from prolonged life support should be treated with aggressive and effective medications rather than treating with medicines that are safe for the foetus but may not successfully treat the illness. The aggressive treatment of the infections may harm the foetus and lead to its demise.

As a consequence of this evidence, I believe that life support for the mother should be stopped since extending her life increases her risk of infection and can cause the foetus to die, which is the same effect as not prolonging her life.

Hypothalamic-pituitary axis disruption

After brain death, the hypothalamic-pituitary axis is disrupted, resulting in panhypopituitarism (Powner and Bernstein, 2003). Panhypopituitarism is a disorder in which the pituitary gland's production and release of all hormones is diminished. During critical illness, activation of the hypothalamic-pituitary-adrenal (HPA) axis is a crucial protective response (Cohen et al., 2005) and plays an important role in pregnancy so if lost after brain death, it is detrimental to the mother and the foetus' health.

Anterior pituitary – The secretion of the thyroid hormone in the body is regulated by the anterior pituitary. When the anterior pituitary gland is affected during brain-death, it

consequently affects the regulation of the thyroid hormone. Hypothyroidism is a disorder in which the patient's bloodstream does not have adequate thyroid hormone. Hypothyroidism in a pregnant woman can lead to metabolic difficulties, temperature regulation concerns, and a detrimental impact on the foetus’s brain and nervous system development (Cleveland Clinic, 2021).

In pregnancy, the availability of the thyroid hormone is affected. If the endogenous thyroid-stimulating hormone from the anterior pituitary gland is gone like in a case of brain death, it is uncertain if human chorionic gonadotropin alone can sustain thyroid function for the remainder of the pregnancy (Powner and Bernstein, 2003).

After brain death, the levels of triiodothyronine (T3), a thyroid hormone, decrease and can lead to a shift in metabolism from aerobic to anaerobic, compromising haemodynamic stability by raising blood lactate and pyruvate levels (Linos et al., 2007). A study by Albright et al. (2015) found that lactic acid elevation during pregnancy is linked to poor maternal outcomes due to suspected sepsis. This means that maternal brain death patients who have a high chance of developing an infection from life support measures are at an even greater risk of mortality if their serum lactic acid levels increase from reduced T3 levels as a result of hypothyroidism.

Brain death can cause secondary adrenal insufficiency. This would mean the pituitary gland can no longer produce adrenocorticotropic hormone (ACTH) and therefore the adrenal cortex will not be stimulated to release cortisol (Mayo Clinic, 2021). Cortisol is a stress hormone that plays an important role in the body.

Adrenal insufficiency negatively affects haemodynamic stability because cortisol is not regulated and can result in a negative outcome for the mother and the foetus (Cohen et al., 2005). The loss of central sympathetic autonomic vascular tone is linked to cortisol deficiency, which is partly responsible for the lack of a normal stress response and hypotension following brain death (Linos et al., 2007).

Posterior pituitary - Posterior pituitary gland failure because of brain death results in an absence of the arginine vasopressin also known as the antidiuretic hormone. Diabetes insipidus (DI) occurs in the absence of the antidiuretic hormone or the kidneys' ability to respond to it and clinically manifests into increased production of large volumes of dilute urine, (Nair-Collins et al., 2014; Linos et al., 2007).

This has developed central diabetes insipidus in seventy to eighty percent of brain-dead patients who were placed on extended life support. The effects of diabetes insipidus on a pregnant brain-dead patient disrupt the concentration of essential minerals in the body. The disrupted mineral blood concentrations cause serum hyperosmolality, hypernatremia, and dehydration/hypovolemia, puts the foetus at a greater risk of experiencing identical problems (Esmaeilzadeh et al., 2010). Additionally, hypovolemia or intravascular volume depletion can also create haemodynamic instability, which is dangerous for the foetus, as previously stated (Mallampalli and guy, 2005).

To treat the diabetes insipidus in previous cases of maternal brain death, intramuscular vasopressin was administered and initiated premature uterine contractions (Powner and Bernstein, 2003). This posed a danger to the foetus as it could have triggered a spontaneous abortion or an early delivery before viability. Alternatives were attempted

successfully using intravenous desmopressin and intranasal or intravenous vasopressin. However, these alternatives affect hepatic, coronary, intestinal, portal and uterine blood flow, placing the foetus in danger as well (Powner and Bernstein, 2003).

On that account, I argue that the brain injury that resulted in brain-death that causes a disruption in the secretion of hormones that are essential for a healthy pregnancy. The treatment for the lack of hormone conditions are dangerous for the foetus so prolonging the life of the mother is not recommended as the hormones are diminished and regulating them with medication can cause foetal death.

Poikilothermia

The loss of the hypothalamus-pituitary axis function from brain death causes poikilothermia. This is a condition in which one's body temperature is negatively affected by the temperature of the surrounding environment (Mallampalli and Guy, 2005) and subsequently the inability to regulate core body temperature (approximately 37˚C).

Hypothermia is a severe and perhaps life-threatening decrease in body temperature (Mayo Clinic, 2021). The heart, nervous system, and other organs are unable to function properly when the body temperature is lower than the optimal temperature. If the systems in the body cannot function optimal to support the pregnancy, the foetus is at a risk of harm or death.

Hypothermia can also cause complete heart and respiratory system failure, as well as death if left untreated (Mayo Clinic, 2021). It can also trigger a left shift in the haemoglobin–oxygen dissociation curve as well as a reduction in the kidneys' capacity

to concentrate urine (Linos et al., 2007). Further showing how hypothermia from maternal brain death can complicate the pregnancy.

Hyperthermia is a condition in which the body's heat-regulating systems fail, resulting in an excessively high body temperature (National Institutes of Health, 2012). It might be an independent direct outcome of an infection established through life support measures procedures, or it could be the result of some preservation of temperature regulation inside the brainstem, which is the most unlikely cause (Powner and Bernstein, 2003). Treatment of hyperthermia caused by an infection in the patient would require aggressive treatment which was previously mentioned in the Infection section as unsafe for the foetus.

Changes in normal body temperature usually do not occur during pregnancy indicating a serious problem when they do occur. An abnormally slow foetal heart rate, which is generally accompanied by preserved heart rate responsiveness to stimuli, can be caused by maternal hypothermia (Powner and Bernstein, 2003). A slow foetal heart rate represents a sign that the foetus is not well and if not resolved, can cause foetal death.

The preferred method of managing maternal hypothermia is external warming methods like blankets which can increase the maternal core temperature and stabilise the abnormally slow foetal heartrate (Powner and Bernstein, 2003). However, the poikilothermia would require close and constant monitoring of the mother's temperature by the nursing staff which may not always be available.

In the event of maternal brain death, the patient will most likely experience fluctuating bodily temperature. As noted by the literature, hypothermia is more frequent of a

condition in brain-dead patients. Hyperthermia can occur if the mother gets an infection and may be treated with antibiotics that can be highly dangerous for her foetus. Poikilothermia and the failure to sustain core body temperature as a complication of maternal brain death has occurred in 41% of the recorded cases in the literature (Dodaro et al., 2021). Thereby making it a considerable complication when deciding upon life support for a pregnant brain-dead mother.

Metabolic instability

Powner and Bernstein (2003) in their report on the extended somatic support of maternal brain death patients, found that there are electrolyte irregularities succeeding brain death. These electrolyte changes are hypernatremia, hyperkalaemia, hypokalaemia, hyponatremia, hypophosphatemia, hypo–total calcemia, hypoionized calcemia, hypozincemia, hypoalbuminemia. (Powner and Bernstein, 2003).

The two most common electrolyte irregularities were hypokalemia and total hypocalcemia which are related to the haemodynamic instability and possible compromise of the uteroplacental perfusion. Therefore, the electrolyte imbalance places a risk on the brain-dead patient and her foetus during extended life-support.

Pregnancy is related to increased insulin production as well as increased insulin resistance. Although brain death does not affect insulin production, increasing endogenous cortisol and other "stress" variables frequently result in hyperglycaemia. The women reported by Powner and Bernstein (2003) were all found to have glucose intolerance. Hyperglycaemia will lead to the diagnosis of gestational

diabetes. Gestational diabetes can result in a risk of developing preeclampsia, stillbirth, macrosomia and birth defects (Msollo et al., 2019).

Life support provided to a brain-dead patient leads to unnecessary bodily intrusions and complications which cause the patient pain and discomfort that can be avoided. It goes against the principle of beneficence and nonmaleficence because harm and the risk of harm are not prevented or reduced. In addition, this resource could be offered to a patient who needs it more and has a better prognosis than a brain-dead patient.

To summarise the points made in this section, I have outlined the types of life-support provided to brain-dead patients and I have underlined the lack of a moral distinction between withholding and withdrawing life-sustaining treatment. Lastly, I have discussed the likely complications, namely cardiac and respiratory compromise, haemodynamic instability, infection, hypothalamic-pituitary axis disruption, poikilothermia and metabolic instability, which subject the mother to harm. These complications can be more harmful than beneficial and tend to put the foetus at high risk as well. Therefore, it is morally justifiable (consistent with the principle of nonmaleficence and beneficence) to withdraw life-support from the brain-dead pregnant mother.

2.4 The overall benefit of prolonging the life of a brain-dead pregnant mother

In this section, I will state and address the typical objections to the overall argument of the chapter. I will address the objection that argues that successful births of viable foetus have occurred despite the complications of pregnancy, brain-death and extended life support.

Successful births of viable foetuses as a counterargument

Many harms to extended life support have been highlighted in the previous sections. However, there have been triumphant cases of life support provided to maternal brain death patients that ended with the successful birth of a foetus.

Said et al. (2013) found 30 cases of maternal brain death in the literature between 1982 and 2010 in which the foetus was successfully matured in the uterus after the mother received extended life-sustaining treatment. Despite the 30 cases reported, less than half of the foetuses (12) were born and survived the neonatal period (Said et al., 2013; Esmaelizadeh et al., 2010). This shows that the extended life support given to the mother does not always guarantee the successful live birth of a viable foetus.

Previously, the gestational age of the foetus was used to predict the likelihood of successful delivery and, as a result, the choice to undertake somatic support. Some researchers found that greater foetal gestational age was related to successful delivery and the foetus' viability. When advancements in life-support technology and critical care were achieved, this changed. These improvements in life-sustaining therapy enabled more and better measures to be taken to prolong the life of a maternal brain death patient until her foetus could be successfully delivered.

Said et al. (2013) reported the longest length of life-sustaining therapy given to a pregnant brain-dead woman, which lasted one hundred and ten days and resulted in a positive infant outcome. They have proven that life-support could be used to sustain the life of a patient who is carrying a foetus of any gestational age.

I respond by acknowledging the successful births of viable foetuses when the life of the mother was extended but as discussed earlier, placing the mother on life support does

not guarantee the successful birth of the foetus. But I argue that withdrawing life support from the maternal brain death patient is also morally justified because only twelve out the thirty cases reported by Said et al. (2013) resulted in a safe delivery which translates to a less than 50% chance that prolonging the life of the mother can result in a successful birth.

Saving the life of the foetus

In the case of a brain-dead pregnant woman, the concept of the sanctity of life and duty to always save a life will be an important aspect of the case's decision-making process. The sanctity of life concept holds that human life is sacrosanct – that is, it is too valuable to be trifled with (Singer 1983). Many people subscribe to this belief and as a result are uncomfortable with and against not providing treatment to save the life of a foetus. Similarly, these individuals are against abortion for the same reason. However, this belief system doesn't seem to consider the moral (and legal) rights of the mother to autonomy, dignity and bodily integrity.

The duty to save a life is in line with the beneficence principle because it conforms to the principle's direction to prevent death. With that said, physicians will do everything in their power to prevent death and promote healing in the name of beneficence. However, death can be beneficial for a patient which is a point that has been mentioned in section 2.3..

In summary of the points made, there have been successful births of foetuses from providing life-support to the brain-dead patient however it doesn't guarantee the successful birth of the foetus as less than half of all reported cases had successful

births. The life-sustaining measures, as advanced as they are, do not eliminate the dangerous complications that can be experienced by the mother. Withdrawing the life-support can be in the best interest of the patient because they will be not subjected to bodily intrusions and harm.

2.5 Chapter conclusion

In conclusion of the main argument made in this chapter, I have defended the claim that it is morally justified to withdraw life-support to a brain-dead pregnant mother as the likely harms of continued life-support outweigh the benefit. I have done this by arguing that:

(i) Medical personnel caring for brain-dead pregnant patients have a professional responsibility to promote their well-being and act in their patients' best interests. The family of a pregnant brain-dead patient should assess the risks and benefits of extended life support and make decisions that prevent harm while promoting goodness. Keeping a brain-dead patient alive might be more harmful and isn't always in their best interests.

(ii) In accordance with the nonmaleficence principle, withdrawing life-support from a pregnant brain-dead patient is morally justifiable because the harm from the complications and intrusions is prevented and eliminated.

(iii) Several likely complications may be experienced by the pregnant brain-dead patient that seem to outweigh the benefit of a probable live birth of her foetus. These complications also place a significant risk upon her foetus and can result in spontaneous abortion or stillbirth.

(iv) Although there have been successful foetal births as a result of giving life-support to the brain-dead mother, this does not ensure successful foetal delivery, since less than half of all documented cases had successful births. Even if life-saving treatments have advanced, they do not remove the risk of severe complications for the mother. Withdrawing life support may be in the patient's best interests since they will be spared physical intrusions and harm.

Chapter 3: Life-support is a scarce and expensive resource.

In this chapter, I shall argue that life-support is an expensive and scarce resource. Furthermore, I will argue that it is fairer to provide this scarce resource to patients who have a better prognosis than ensuring the viability of the foetus..

I will begin by providing an overview of the South African healthcare system and continue to highlight some of its challenges that can affect a maternal brain death patient. By highlighting this, I will show that the South African health system is heavily burdened and cannot afford to spare health workers or life sustaining resources to a patient who is brain-dead. Next, I will claim that critical care resources are expensive, and this can influence the decision-making process. The state or the family of the

patient may not afford to keep her on life support for the required weeks until her foetus is viable.

Following this, I will explore the rationing of intensive care services. Based on this assessment, I will claim that it may not be fair for a maternal brain death patient to receive life support over other patients when intensive care resources are rationed. Lastly, I will address the objection about providing futile treatment even if it is free or the family of the patient are willing to pay for it. I will respond by stating that physicians have no obligation to provide treatment that is considered futile, even if people are willing to pay for it. This means that physicians may provide the life support to a patient who needs it over a patient who doesn't need it but can afford it.

3.1 The state of the public and private healthcare in South Africa

In this chapter, I will provide an overview of the healthcare system in South Africa and how it impacts the accessibility to intensive care treatment. I will claim that it is heavily burdened and cannot afford to spare health workers or life sustaining resources to a patient who is brain-dead and pregnant. Consequently, I will argue that it is morally justified to withdraw life support from a pregnant brain-dead patient because it is fairer to provide the treatment to a patient who needs it more and has a better prognosis than the maternal brain death patient.

Overview of healthcare in South Africa

In South Africa, the healthcare system is composed of two tiers, the public and private healthcare sectors. It is often observed that this two-tiered system is split along socioeconomic lines (Young, 2016). This means that the socioeconomic divide is

reflected through the type of healthcare citizens can access. The public healthcare system refers to healthcare that is freely available to all citizens and is funded by the government. Private healthcare allows individuals who can afford to purchase private medical insurance or pay out of pocket to be treated in private medical centres (Young, 2016).

In South Africa, hospitals are divided into three categories: primary, secondary, and tertiary. Internal medicine, paediatrics, obstetrics and gynaecology, general surgery, and general practice are some of the departments available in primary hospitals. Referrals are required to reach secondary hospitals, which provide specialized rehabilitative treatments. Physiotherapy, occupational therapy, speech therapy, dietetics, podiatry, and orthotics and prosthetics are examples of rehabilitative services. Tertiary hospitals provide highly specialized technology and expertise for conditions that primary and secondary hospitals cannot effectively treat (Young, 2016) like in the case of a patient like Mrs Munoz.

Following the general overview of the healthcare system in South Africa, I will discuss some of the issues that burden the public healthcare system. These issues include but are not limited to the financial disparity between public and private healthcare. This discussion will show that intensive care services are not readily available and that there are many patients who need this service more than the brain-dead pregnant mother.

Furthermore, the lack of financial resources in the public healthcare sector negatively influences the quality of healthcare that can be received by patients. Maternal brain

death patients require meticulous and advanced care to ensure the safety of the foetus that is expensive to provide and to receive.

Issues with healthcare

Government funded healthcare, also known as public healthcare, has its advantages and disadvantages. Public healthcare being free is beneficial because it serves the large majority of the country's population that is poor or that cannot afford expensive private healthcare (Young, 2016). Of the percentage of the gross domestic product (GDP) spent on healthcare, approximately 4% is spent by public healthcare which provides for just over 80% of the country's population (Naidoo et al., 2013). This ratio of funds versus patients is disproportionate and results in people not receiving quality healthcare.

The disadvantage of public healthcare is the poor quality of services offered as a consequence of the government's inability to provide high-quality treatment due to a lack of funds. The population it serves and the disease burden it faces shows that the public sector is underfunded and understaffed. This has bled over into the public sector's critical care services (a tertiary hospital service), where there are reports of inefficiencies in intensive care usage (Naidoo et al., 2013) that could probably cause preventable deaths.

Short wait times, higher quality of treatment, better facilities, sufficient resources, and proper disease management and preventative practices are all advantages of private healthcare. Private healthcare has the disadvantages of being more expensive and having fewer facilities available to the public than the public sector (Young, 2016).

Private healthcare caters for individuals who can afford to pay for it through private medical schemes or out-of-pocket and because of this fact, it serves less than 20% of the entire country's population (Mahomed et al., 2017). Due to the differences in financial and human resources between public and private healthcare, it's reasonable to assume the same variation in the quality of care because better funded and resourced institutions tend to provide better care (Ranchod et al., 2017).

I agree with the literature that the differences between the two sectors of healthcare have implications that can affect the quality of care that can be received by patients. It has been established that a maternal brain death patient requires close observation from a multidisciplinary team in a hospital that offers quality critical care with the proper equipment. A maternal brain death patient may not be treated properly and appropriately with the necessary care in a public tertiary hospital. It has been reported that there is a lack of healthcare personnel and trained intensive care staff that can adequately care for a patient like Mrs Munoz.

A multidisciplinary team of physicians might provide the care that the maternal brain death patient demands. However, this care would be costly, and it is possible that the patient's medical plan would not cover it all. The small number of private healthcare facilities available also implies that the patient may struggle to get a bed in intensive care and possibly not be able to receive the care she requires.

These issues in the South African healthcare system present obstacles for a maternal brain death patient. The cases I have reviewed in the literature took place in international settings or in countries with a better funded healthcare system. It is difficult

to predict whether a successful case of maternal brain death could take place in a South African setting. This is why I argue that it may be morally permissible to withdraw life support from a pregnant brain-dead patient in South Africa.

In the next section, I will discuss the accessibility of critical care and the implications thereof. This will include the differences between the types of intensive care units and how they operate in private and public healthcare. Additionally, I will consider the number of intensive care beds available and how they are distributed between the two healthcare sectors. With these points, I will argue that they can affect the chances of admission and the subsequent extended care for a patient like Mrs Munoz.

Accessibility of critical healthcare

The demand for intensive care beds is surpassing availability throughout the world. With such a high burden of disease and a high demand for such treatment in South Africa, critical care physicians frequently confront ethical problems about who should be admitted (Naidoo et al., 2013).

There are substantial differences in the system of be allocation between public and private hospitals which influences the kind of patients that are prioritised and admitted. The differences in bed allocation are also as a result of most public hospitals lacking intensive care services whereas private hospitals frequently possess (Scribante and Bhagwanjee, 2007).

There are approximately five thousand intensive care beds throughout the country with about 75% in the private healthcare sector and the remaining 25% in the public healthcare sector. Of the 25% of intensive care beds in public healthcare, they are

spread out between three major provinces in the country namely Gauteng, KwaZulu Natal and the Western Cape (Mahomed and Mahomed, 2019).

These facts indicate that access to intensive care has barriers of cost and location because the service is limited in public healthcare and only located in specific areas. This limitation is problematic for a pregnant brain-dead patient that may not be able to afford private healthcare and/or does not live in the specified provinces.

Medical advancements, along with rising life expectancy, have resulted in a rise in the number of patients with multiple morbidities, causing an increased need for critical care beds. However, the public healthcare sector has been reluctant to increase the number of intensive care beds through developments of new hospitals because of the Department of Health's focus on making primary healthcare accessible to all (Mahomed and Mahomed, 2019). This adds to the barriers of access for future maternal brain death patients in South Africa.

Another factor that can impact the admission of patients into intensive care is how intensive care units are operated. The various operating systems used in intensive care units have been demonstrated to affect patient outcomes. These operating systems are known as closed and open intensive care units. A common argument on how to get the greatest patient outcomes is understanding that intensive care is difficult and can only be administered by medical and nursing critical care specialists (Scribante and Bhagwanjee, 2007) which is how closed units operate.

In closed intensive care units, patients must be approved by the clinician in charge before being admitted. In open intensive care units, any physician can admit a patient

into intensive care. Intensive care units are closed units in the public sector and in the private sector they are open units. As a result, private intensive care units serve to patients with various levels of intensive care equipment requirements (Mahomed et al., 2017). In a public specialised hospital, a patient like Mrs Munoz may not acquire a be in intensive care as the clinician in charge may feel like there are other patients who would benefit more from this resource.

Scribante and Bhagwanjee (2017) deduce in their national audit of critical care resources in South Africa, which closed intensive care units indicate the most effective approach to maximising patient outcomes and reduce intensive care costs. That says that having intensive care specialists decide on patients who are most at need for intensive care treatment and equipment in a resource limited country would improve both patient outcomes and healthcare costs.

I agree with the literature that patient outcomes and costs of care can be significantly improved by having closed units. It has been identified that this approach is used in most if not all public sector hospitals and could be due to the limited beds and resources. Given this fact, a maternal brain death patient may not always take preference over other patients that have a better prognosis or a more serious and urgent medical condition.

A patient like Mrs Munoz has a better chance of being admitted in a private intensive care unit than a public one because they operate as open intensive care units and more beds available. However, the possibility of this happening is significantly reduced if the

maternal brain death patient does not have a medical scheme or cannot afford to pay out of pocket.

Intensive care is expensive

A maternal brain death patient may have trouble accessing intensive care treatment because of affordability. One of the most significant cost generators in a hospital are intensive care services. Despite the fact that intensive care unit beds account for less than 10% of the total hospital beds, the cost of admission into intensive care is substantial (Mahomed and Mahomed, 2019).

In a study conducted by Mahomed and Mahomed (2019) about intensive care costs in a central hospital in South Africa, they found that the cost per patient per day in the mixed intensive care unit to be just under R27 000. The mixed intensive care unit consisted of the neurological, medical and surgical departments (Mahomed and Mahomed, 2019) which is typically where a maternal brain death patient would be admitted.

In other words, if a maternal brain death patient was admitted into intensive care, she or whoever will be responsible for her medical costs, would be charged R27 000 per day. In comparison to the patient reported by Said et al. (2010) that was on life support and admitted into intensive care for one hundred and six days, a similar patient admitted into a South African hospital could have a medical bill that amounted to just under R3 000 000.

If the patient was to be treated in a public hospital, the state may not be able to afford to pay and provide the necessary healthcare personnel and equipment. It is also unethical

for the state to pay to have the brain-dead patient on life support for an extended period when there are other critical patients who need the resources more.

For this reason, I argue that it is ethically justified for life support to be withdrawn from the pregnant brain-dead woman because the cost of keeping her on life support is too extensive and may not be affordable to her or her surrogate. It violates the nonmaleficence principle because the expense of life support can be financially taxing to the person responsible of the costs. The financial burden can cause distress and therefore harm to the person.

To summarize of the points made in this section, I have briefly discussed the structure of the healthcare system in South Africa. I have also demonstrated the current issues with healthcare and the poor accessibility to intensive care services. I claimed that there are several issues and barriers to accessibility of intensive care that could result in a maternal brain death patient not receiving the care she requires to extend her life long enough for her foetus to be born safely. In addition to this, I have claimed that it may not be fair for the limited intensive care resources to be used to treat a maternal brain death patient over another patient who has a better prognosis.

3.2 Maternal death patient vs other critical care patients – rationing of intensive care unit services

In this section, I will explore the rationing of intensive care services and the implications thereof. Additionally, I will discuss the ethical models that have been associated with the rationing of intensive care services. I will therefore argue that in resource limited settings like in South Africa, it is ethically justifiable to withdraw critical care services from a brain-dead pregnant mother because of the rationing of services. It is worthy to

note that in this section, life-support for a brain-dead patient will be referred to as futile treatment as per the definition previously used.

Intensive care rationing

Many patients and their families think that they are entitled to all critical care treatment. This may be because the South African constitution states that everyone has a right to emergency healthcare (Section 27 of the Constitution of South Africa, 1996). Most people may forget to acknowledge the term ‘emergency’ and can feel entitled to healthcare provision. Intensive care is therefore a privilege and not a public right. It is important to note that the right to healthcare is limited as stipulated in section 27(2) and 36 of the Constitution (1996).

No healthcare system, however, can offer all patients with all the treatments that could be beneficial. If that were possible to provide these advantages to all patients, it would be counterproductive since it would take resources away from other important societal goals like education and infrastructure. A greater utilization of healthcare resources like rationing healthcare services could assist a greater number of people (Truog et al., 2006) which is why it is a method employed by multiple healthcare systems around the world.

Rationing in healthcare is described as the delivery of potentially lucrative healthcare services to a selected group of individuals despite limited availability, requiring the withholding of such services from others as per the Values, Ethics and Rationing of Critical Care Task Force definition (Sinuff et al., 2004). The rationing of healthcare

services occurs in many different levels from state level like the government budgetary restrictions all the way to the individual physician level (Truog et al. 2006).

How healthcare services are rationed is based upon several factors including the patient and their family's belief and or preferences, clinical judgement, and evidence-based treatment efficacy (Sinuff et al., 2004). Additional factors include age, severity of illness, medical diagnosis, bed shortages and performance status (Truog et al., 2006).

The rationing factors will be part of the decision-making process about whether a patient like Mrs Munoz should be admitted into intensive care. The patient or their family's belief in the sanctity of life, clinical judgment or increased bed availability in intensive care can result in a maternal brain death patient being admitted into intensive care until her foetus is viable for birth.

On the contrary, bed shortages, clinical judgement, severity of illness and medical diagnosis can result in a maternal brain death patient to not be admitted into intensive care and therefore the withdrawal of care. Previous cases of maternal brain death can inform the decision by showing that it would cost too much money and the clinical judgement can consider the fact that the extended life support may not result in a successful birth of the foetus and therefore is not worth the risk.

A systematic review of examining of the impact of rationing intensive care unit beds on outcomes of care was conducted by Sinuff et al. (2004). From this review they concluded that patients who are thought to be ineligible for critical care, which is they will not benefit from critical care, are more likely to be denied admission to an intensive

care unit, which is linked to an increased risk of mortality in the hospital (Sinuff et al., 2004).

The above implies that not admitting patients who are ineligible for intensive care was associated to an increase in hospital mortality in this study. If this instance is applied to my central argument about withdrawing life support from a brain-dead pregnant mother, it remains true. If a patient with maternal brain death is evaluated using the rationing criteria but is not admitted to intensive care, she and her foetus will die, increasing the hospital's mortality rates. However, the same research by Sinuff et al. (2004) indicated that bed shortages, which are common in South African public hospitals, do not result in a significant rise in the hospital's overall mortality rate.

Most medical institutions strive to reduce the risk of mortality and could admit ineligible patients into intensive care to avoid that risk. This is not always justified as it could take up space from individuals who would benefit from that care (Knox, 2014).

I agree with the literature that rationing of healthcare services, especially critical care resources, is both ethically permissible and necessary for equitable resource allocation. Furthermore, failing to limit resources in the healthcare system might have disastrous consequences. I don’t deny that some of the rationing decisions may be unethical, however, they can be differentiated from ethical rationing decisions.

Rationing of healthcare resources, as previously mentioned earlier in section 3.2, occurs at multiple different levels. But in this paper, I will evaluate the categories of reasons that ensure ethical rationing of resources proposed by Truog et al. (2006) and

claim that based on these categories of reasons, a maternal brain death patient may not be justifiably allocated the rationed resources.

Withholding treatment or an intervention because it is in the best interest of the patient is not rationing of healthcare services. Rationing occurs when the physician evaluates different treatment options for the patient and chooses the effective and most affordable. If the physician chooses the most effective and most expensive form of treatment, then rationing has not taken place but rather a clinical judgement made based purely on patient interests (without financial consideration).

Truog et al. (2006) proposes three categories of reasons that can be used to justify the rationing decisions. These are (i) rationing and external constraints, (ii) rationing and clinical guidelines and (iii) rationing and clinical judgement. I will expand on these reasoning categories and identify the one that most applies to the withdrawing life sustaining treatment from a maternal brain death patient.

Rationing and external constraints as a category for reasoning includes examples like not admitting a patient from the emergency department in the intensive care unit because there are no intensive care unit beds available, and it is not safe to discharge any other patient in intensive care (Troug et al., 2006).

The second rationing decisions category is clinical guidelines.. Clinical guidelines have become a significant tool for clinicians in guiding clinical efficacy choices in the intensive care unit because of the magnitude and intricacy of clinical decision making. Some of the clinical guidelines are developed using meticulous guideline methodology and illustrate evidence from distinguished research. Numerous clinical guidelines, for

example, offer recommendations depending only on scientific evidence of whether the benefits of an intervention outweigh the dangers, regardless of cost (Truog et al., 2006).

Rationing and clinical judgement are the last category of reasons provided by Truog et al. (2006). This type of reasoning is typically used in two situations: when clinical guidelines are ambiguous and when there are no clinical guidelines available. Any clinical guideline must be used together with clinical judgment, and divergence from the guideline is both permissible and necessary in appropriate circumstances (Truog et al., 2006). .

With respect to the central argument about withdrawing life support from a pregnant brain-dead mother, I claim that it is permissible to rely on clinical judgement to assist with deciding whether to withdraw life support from a brain-dead pregnant mother. Due to the novelty of maternal brain death, there are no clinical guidelines or laws that are specific to the maternal brain death case therefore making clinical judgment a better option to follow. External constraints can also justify not providing extended life support to a maternal brain death patient due to limited intensive care bed space or personnel.

The rationing of healthcare resources is often contested. The rationing of intensive care services, according to others, is never ethical (Truog et al., 2006). They contend that, even if intensive care services must be limited to free up resources for other societal requirements, intensivists should never be tasked with rationing them, but should instead be strong champions for all of their patients' needs, regardless of scarcity or cost. If rationing is required, this view argues, it should be done away from the patient,

via the adoption of clear and explicit rules or through government policy (Truog et al., 2006).

To this I respond by pointing out that even if rationing of healthcare resources occurs at higher levels like governmental or senior management, it will still require doctors to make the rationing decision of who acquires those now limited resources. Limiting critical care services by limiting the number of ICU beds available forces intensivists to utilize their judgment in selecting which patients to admit to those beds. Intensivists must utilize their clinical judgment to relate rationing concepts to specific clinical scenarios as part of any systematic strategy to rationing (Truog et al., 2006).

Next, I will discuss some of the ethics principles associated with the scarcity of healthcare resources and rationing as a solution to that issue. I will review the normative principle of distributive justice and apply it to the case of resource rationing.

Distributive justice and rationing of resources

Physicians who deny or withhold treatment as a means of ensuring a fair and balanced allocation of healthcare resources have been criticized. This method is considered as the start of a slippery slope fallacy that leverages medical futility as a pretext for the rationing of resources and lowering end-of-life care expenses (McQuoid-Mason, 2017).

The reality is, however, that fair and equitable distribution of healthcare resources needs to happen to ensure the just allocation of said resources. In this subsection, I will be referring to distributive justice and the duty of healthcare professionals to allocate resources fairly and not distributive justice in the context of the government's duty to provide enough resources for the population.

Distributive justice is defined by Beauchamp and Childress (2013) as ‘fair, equitable, and appropriate distribution of benefits and burdens determined by norms that structure the terms of social cooperation’. According to McQuoid-Mason (2017), the principlism approach, and hence the principle of justice, is defined as matching the subjective interests of patients or their surrogate decision-makers, as well as the medical community, with the society’s objective concerns about the appropriate and just distribution of medical resources.

In line with the claim by McQuoid-Mason (2017), I will argue that the rationing of intensive care services, a scares resource, can be considered fair distribution of healthcare resources. Placing a woman on life support for an extended period of time may meet the subject needs of the patient or their surrogate decision maker, but it would not meet society's objective concerns about the appropriate and just distribution of medical resources if the patient took up the space of another critical patient.

Additionally, I will claim that withdrawing life-support from a brain-dead patient to provide the intensive care service to another patient with a better prognosis is morally justified. The principle of formal justice, which is credited to Aristotle, is universal to all theories of justice (Iserson, 1999). According to this theory, equals must be treated equally, and unequals must be treated unequally, but proportionately to their relevant disparities (Iserson, 1999).

An example could be made by comparing two unequal patients, namely patient A and patient B. Patient A is a maternal brain death patient and was 15 weeks pregnant at the time of her diagnosis. A decision was made to prolong her life using life support

measures until her foetus is viable and can be safely delivered. Patient B is a father of four kids who suffered a respiratory injury that requires him to be placed on life support until his lungs can work again. Only one of them can be treated.

The principle states that the morally right decision is treating unequal people unequally but proportionately to their relevant disparities. I believe that the morally right decision is to provide the life support treatment to the father because the mother is already dead and is only being kept alive for her foetus who is not a person and has no legal status compared to the other patient who does.

A question that could follow is how equality or inequality was determined. What factors warrant a deviation from the rule of equitable distribution? Almost all the critics acknowledge that differences in experience, age, poverty, skill, merit, and position can occasionally be used to justify differentiated treatment for certain reasons (Iserson, 1999). In this example, I used legal status and personhood to differentiate and determine the inequality.

Researchers interviewed by Knox (2014) set out to prove the theoretical concept about patients receiving futile intensive care that take up the space of patients that actually need that care. This theoretical concept was researched by a group of California researchers in 2014 to determine whether triage was a working framework in intensive care or not.

The researchers concluded that 11% of the total intensive care patients were receiving futile care. Moreover, their research demonstrates that patients who might gain from intensive care in the hospital nearest to them, may wait hours, if not days, in emergency

rooms or other neighbouring hospitals, or die while waiting because critical care beds are taken by patients getting ineffective treatment (Knox, 2014). They claim it is unethical for people who are unable to get critical care because beds are taken by individuals who are unable to benefit from the service (Knox, 2014).

I agree with the researchers that it is unethical to deny critical care to patients who require it and would benefit from it because intensive care beds and resources are being utilized by patients who will not benefit from it. As previously stated, the concept of futility is highly debated, and it is sometimes questioned if medical futility is used as a justification for rationing healthcare resources.

However, the researchers interviewed by Knox (2014) discovered that when resources were limited, physicians began having treatment withdrawal conversations and reducing futile treatment in intensive care. Which goes to show that in a resource-constrained healthcare setting, withdrawal of futile treatment occurs to allow for a fair allocation of resources.

To summarise the above section, the following points were raised: the rationing of healthcare resources in a resource-limited setting is ethically permissible and necessary for fair resource allocation, using distributive justice as an approach to resolving medical futility matches the subjective interests of the patient or their decision-maker, as well as the medical community, with society's objective concerns about appropriate and ethical distribution of medical resources, and it is unethical to provide futile intensive care to a patient as it may take up the space from a patient that may benefit from the intensive care in a resource limited setting.

The last section of the chapter will address the objection to the chapter's objective. This counterargument is based of affordability of futile treatment and whether physicians should continue to provide the futile treatment.

3.3 Should physician continue to provide futile treatment if its free or the patient, or their family are willing to pay for it?

In this section, I will address the overall counterarguments to the objective of the chapter. I will begin by stating the objections to the chapter's argument followed by my responses to the objections. When responding, I will consider some concepts that are important in my response to the objections.

The first objection to the chapter's argument that I will address is if life-support, seen as futile in this argument, should still be provided to the brain-dead pregnant mother if her partner or family are willing to pay for it. Some may argue that life-support should still be provided to the patient if the family are willing to settle the expense. Physicians, on the contrary, are not ethically nor legally bound to deliver ineffective therapy. Physicians should be able to decline treatments if they are unlikely to be effective, even if they are not dangerous (McQuoid-Mason, 2017).

Therefore, I respond by stating that since physicians are not obligated to deliver ineffective or futile treatment, they are not obligated to prolong the life of a brain-dead pregnant mother. For the purposes of this answer, futile therapy is defined as treatment that gives no realistic prospect of recovery or improvement, or treatment that is rendered ineffective because the patient is permanently unable to benefit from it (McQuoid-Mason, 2017). The brain-dead patient as the primary patient will not recover or improve when placed on life support therefore, prolonging her life is futile.

In addition, I previously argued that it is against the principle of distributive justice to prioritise and provide limited intensive care treatment to the brain-dead pregnant mother over another patient that may require the service more and has a better prognosis. Therefore, making it unjustified to keep the mother on life support over another patient because of the distributive justice principle.

The circumstance of the mother being pregnant does add a layer of complexity to the case. This then raises the question of whether physicians have the ethical or legal duty to sustain the pregnancy of a brain-dead mother. Sperling (2004) identifies what he defines as a special relationship between a pregnant mother and her foetus and claims that it provides a moral duty. He defines the 'special relationship' as a distinct and intimate relationship supported by two factors: the foetus' individuality and the mother's comprehension and acceptance of that individuality (Sperling, 2004).

Sperling (2004) then argues that upon the mother's death, which is when she is declared brain-dead, the nature of the relationship changes. The relationship changes because she is no longer conscious of her foetus and her bond with it. As a result, when the mother's relationship with her foetus ends with the mother's death, the mother's ethical obligation to safeguard her foetus' life should be rejected (Sperling, 2004).

I agree and support the claims made by Sperling (2004). Because she no longer has that particular connection to her foetus, the dissociation between the mother and the foetus after her death negates the concept and presumption that she would wish her life to be prolonged for the sake of her baby. Therefore, there is no obligation for the doctors to prolong her life for the purpose of saving her foetus.

3.4 Chapter conclusion

In conclusion, I have argued several points to defend my claim that it is morally acceptable to withdraw life support from a brain-dead pregnant mother on account of life-support dispensed in intensive care, is a scarce and an expensive resource. These points are:

(i) There are disparities that exist between the two healthcare sectors that shape the issues and poor accessibility to intensive care services in South Africa. These issues and accessibility problems are the disadvantages of both healthcare sectors, the operational systems of the intensive care units, limited bed space and inadequate medical personnel.

(ii) There is a high cost of intensive care services in South Africa and therein the likely expense of providing life support to a brain-dead pregnant mother. The general consequentialism theory supports why it may be unethical to prolong the life of a maternal brain death patient because of the consequence of the high expense.

(iii) South Africa has a resource limited healthcare system which warrants the rationing of healthcare resources. It is ethically justified to ration healthcare resources in a resource-limited setting to ensure the fair allocation of the resources. The rationing of resources does not permit providing futile treatment as it may take up space for patients who would benefit from that care.

(iv) Futile treatments to brain-dead patients reduce bed availability and should not be rendered to patients who can afford it as there is no legal or ethical duty upon the physician to do so. There is no duty for physicians to prolong the life of the brain-dead

pregnant mother because she has no conceivable relationship to her foetus and the death of her foetus is a natural consequence of the death of the mother.

Chapter 4: South African laws and health care regulations about withdrawing life-prolonging treatment. – Analysis and Critique

In this chapter, I will argue that the South African laws and healthcare regulations on maternal brain-death are insufficient in guiding such cases. I will begin by outlining and analysing the current South African laws made by the National legislature and

healthcare regulations that are relevant to the maternal brain death case. Following this, I will show that there is a lack of guidelines that are specific to maternal brain death cases and provide recommendations for future maternal brain death cases in South Africa thereafter.

The chapter will be divided into sections that address the relevant laws and regulations. In the first section, I will outline and analyse the (Choice) on Termination or Pregnancy Act No. 92 of 1996 followed by the Section (2) of the Constitution on the constitutional right to bodily integrity, dignity and autonomy. In these sections, I will argue that the legislation is not specific to or has accounted for cases of maternal brain death and therefore can provide minimal to no guidance. The third section will compare the legal status of the mother and the foetus and argue that the mother has a higher legal status and subsequent rights than her foetus.

The penultimate section will analyse and criticize the guidelines issued by the Health Professions Council of South Africa. I will review some the guidelines that may assist in a maternal brain death case as well as offer recommendations specific to a controversial case like maternal brain death. Since there aren't any guidelines to adequately guide and advise cases of maternal brain death, in the last section I will discuss a previous case and apply it to the South African context by using the available laws and guidelines.

4.1 Termination of Pregnancy Act

In this section, I will review the Termination of pregnancy act and its relevance to the central argument that is withdrawing life support from a pregnant brain-dead mother. I will argue that this act may legalise termination of pregnancy but does not apply to this

case because of the definitions and conditions stipulated in the act. However, this act recognises the legal and moral right of women to bodily integrity, human dignity and autonomy which are important normative principles in this paper.

The (Choice) on Termination of Pregnancy Act 92 of 1996 is an act that legalises abortion for women in South Africa. This statute establishes the circumstances and conditions under which a woman's pregnancy may be terminated (Choice on Termination of Pregnancy Act 92 of 1996).

The termination of pregnancy act has a lot of controversy surrounding it for many reasons including reasons mentioned throughout this paper. The main case law that is relevant to this act is the case *Christian Lawyers Association v Minister of Health* in which the act was challenged. The plaintiff alleged that the act violated the constitutional right to life however, the South African law did not identify the foetus as having a legal personality. This ultimately resulted in a ruling against the plaintiff (Global Health & Human Rights Database, 2022).

Many of the objections to the termination of pregnancy act are similar to those addressed in this paper. This act is relevant to the central argument of the paper and is subsequently discussed because it results in the death of the foetus.

The controversy of this act often leads to split opinions popularly known as ‘pro-choice’ and ‘pro-life’ beliefs (Mokgethi et al., 2006). This is further explained by Mokgethi et al. (2006) that women's rights to choose whether or not to terminate a pregnancy are defended by "pro-choice" beliefs. Also, according to the "pro-life" stance, a foetus is a person, thus a termination of pregnancy is equivalent to murder (Mokgethi et al., 2006).

Therefore, since the termination of pregnancy is seen as equivalent to murder by some people, it is safe to assume that the withdrawal of life support from a pregnant brain-dead patient would be viewed in the same light because it also results in the death of the foetus.

As mentioned earlier in section 4.1, the South African law recognises and protects a woman's right to human dignity, bodily integrity and autonomy through the termination of pregnancy act. This is consistent with the constitutional laws about these principles. A maternal brain death patient deserves to be respected and for her bodily intergrity to be protected which is a right protected by the state. Therefore, it may be unlawful to keep a patient on life support for the purpose of her foetus because it infringes on her rights to human dignity, bodily integrity and autonomy.

Nevertheless, McQuoid-Mason (2014) claims that this act does not apply to a maternal brain death case because there was no expulsion of the contents on the uterus as required by the Termination of pregnancy act. According to the legislation, termination is defined as "the separation and ejection of the contents of a pregnant woman's uterus by medical or surgical procedures" (Choice on Termination of Pregnancy Act 92 of 1996). In a case of maternal brain death, there is no expulsion of the uterus but rather the death of the foetus as a resultant of the withdrawal of life support from the brain-dead patient (McQuoid-Mason, 2014).

Even though this act recognises the rights of women to bodily integrity, dignity and autonomy, I agree with McQuoid-Mason (2014) that this act does not apply to the maternal brain death because there is no expulsion of the contents of the uterus.

Therefore, this act cannot adequately advise or be applied to maternal brain death cases.

Considering this, it is clear that the termination of pregnancy act cannot be used entirely to guide or defend the withdrawal of life support to preserve the dignity and bodily integrity of the mother. But it can motivate physicians assigned to a maternal brain death case to be aware that the law does uphold and promote the human dignity and bodily integrity of women who are pregnant and does not always prioritise the foetal rights and interests over the mothers.

Physicians and the family members of a brain-dead pregnant mother need to be mindful of this act and in accordance with the act, ensure that the mother's dignity and bodily integrity is promoted and protected. They can do this by not subjecting the mother for extended periods to life support that will not benefit her but rather her foetus. Treating her as an incubator is diminishing her dignity and bodily integrity which goes against her constitutional rights.

In summary of the points I have argued in this section, I have claimed that due to the differences in the causes of foetal death, the termination of pregnancy law cannot be applied to legally guide a case of maternal brain death. In the act, the unborn dies as a result of the uterus' contents being evacuated, whereas in maternal brain death, the foetus dies as a result of the mother's death.

4.2 Right to Bodily Integrity, Dignity and Autonomy

I have previously made arguments that prolonging the life of a brain-dead pregnant mother by means of life support violates her moral rights to autonomy, patient dignity

and bodily integrity as she is treated as a human incubator. In this section, I will review the constitutional rights to dignity, bodily integrity and autonomy. I will discuss the relevance of these rights to the main argument of withdrawing life support from a pregnant brain-dead patient and argue that they can advise cases of maternal brain death but are not sufficient to guide decisions on such cases.

Human dignity

Everyone has a constitutional right to human dignity which states that we all have inherent dignity and the right to have our dignity respected and protected (Section 10 of the Constitution of South Africa 1996). Therefore, it is unlawful to infringe on a patient's dignity..

A patient's dignity is at risk in critical care because they may lose control of their conditions, have limited communication abilities, and have compromised autonomy and integrity (Moen and Nåden, 2015). A maternal brain death patient is not in control of their condition and loses their ability to communicate their needs and decisions, and consequently their autonomy and integrity.

The dignity of a maternal brain death patient should be preserved by her healthcare team and her family. Her inherent dignity should be promoted and respected, and the interests of her foetus should not be prioritised over hers because it is not legally identified as a person. , certain patients' dignity may be violated if they are in a vulnerable state, such as those that are incapacitated and are in intensive care.

I argue that this law is not sufficient in informing cases of maternal brain death. Even though the law protects the dignity right for all patients, it is not specific enough to

advise or guide patients who are considered dead (therefore don't have this constitutional right) but are serving as human incubators for their foetus' (who are not legal persons).

Furthermore, I argue that a maternal brain death patient's dignity is compromised because she is reduced to a human incubator which affects her perception by others. This is unconstitutional. The right to human dignity entails that no one should be treated as an object or instrument of the will of others (Department of Justice and Constitutional Development, 2014). The purpose of her life is reduced to ensuring that her foetus, of which she is no longer aware of, is viable for a live birth.

An objection could be posed that the right to human dignity does not apply to the brain-dead patient because she is legally dead. However, the South African law does protect the interests of the dead to dignity and protects them from being taken advantage of by the living. Therefore, the mother's dignity is still preserved even after she is dead, and it is unlawful to infringe on her human dignity by extending her life using life support and subjecting her to possible harms and bodily intrusions.

Bodily Integrity

Section 12 (2) of the Constitution of South Africa (1996) states that everyone has a right to bodily and psychological integrity which includes the right to […to security in…and over their body]. This right means that every person has the right to bodily integrity and for them to feel secure in their bodies. The right to security over one's body protects one's bodily integrity from unwanted interference (Nienaber and Bailey, 2016). A

hospital patient's bodily integrity is often vulnerable as there are exposed, incapacitated and could have unwanted intrusions on their bodies.

The bodily integrity of a maternal brain death patient in intensive care is also at risk as they are 'poked and prodded' with life support treatments.. Her body should be treated with respect, and her dignity and bodily integrity should be preserved by not having her body being treated aimlessly.

Placing the mother on life support is not done for her interests but rather that of her foetus'. She does not have security in her body. Despite her being brain-dead, it is unlawful to use her body for the interests of the foetus because it compromises her bodily integrity. Her bodily integrity is compromised and not preserved which infringes upon her rights.

I claim that it is unlawful to place a brain-dead pregnant mother on life support for the purpose of her foetus because her bodily integrity is not sustained as she is subjected to bodily intrusions from life sustaining treatment to promote the interests of her foetus. The foetus has no right to life (not a person) therefore she has no legal obligation to stay on life support until the foetus is viable.

Patient Autonomy

The close relation between autonomy and informed consent is highlighted throughout the paper. Patient autonomy is legally promoted by laws that give every person the right to be informed and to participate in all medical decisions that affect them. Section 12 (2) of the constitution legalises autonomy and self-determination in relation to bodily integrity.

The right to autonomy and self-determination is also legalised in the National Health Act. Section 7 and 8 of the National Health Act specify that everyone has a right to participate in decisions affecting their health and to give informed consent before a health service is provided. I claim that the patient's right to autonomy and self-determination is violated when her human dignity and bodily integrity are devalued, and she is treated like a human incubator.

Since the brain-dead pregnant patient cannot participate or provide consent, the law gives authority to consent and participate in decisions to a proxy. Persons authorised to give consent on behalf of the patient are the “spouse or partner of the user, a parent, a grandparent, an adult child or a brother or a sister of the user” in that respective order (National Health Act No. 61 of 2003).

The patient’s right to autonomy can be preserved and promoted by having a surrogate decision-maker authorised by the law. However, I had previously claimed that the surrogate decision maker may be influenced by emotional distress and other factors and may not make the best decision for the maternal brain death patient. This can become an issue in this case because they will not provide consent that is informed and valid but rather consent that is influenced by emotions.

One could question whether or not a brain-dead woman has rights since she is brain-dead and therefore legally dead. McQuoid-Mason (2014) clarifies that dead people are not bearers of civil law rights or human rights and I agree with this viewpoint. However, it is important to note that although maternal brain death patients do not possess rights, they are lawfully protected from desecration.

Having no rights also does not mean or suggest that society is free to do anything it desires with the deceased's corpse. Meaning the surrogate cannot decide on extended life support because they are prioritising the interests of the foetus over the mothers.

To summarize the points made in this section, I have argued that the mother's right to bodily integrity and dignity is violated by life support, which is an invasive and sometimes detrimental treatment. I have also argued that legally authorised individuals can preserve and promote patient autonomy, but they must be aware that their consent might be impacted by a variety of variables that can undermine it.

4.3 Legal status of the foetus vs legal status of the mother

In this section of the chapter, I will discuss the legal status of the foetus and the mother. I will argue that the foetus has no legal status. Additionally, I will argue that the mother has a higher legal status than the foetus.

Legal status of the foetus

A person is legally regarded to come into existence at birth, according to South African law, which is a combination of Roman-Dutch and English law. Because legal subjectivity under South African private law only begins at birth, an unborn child is not given any formal legal status until it is born alive. When the foetus is detached from its mother and is breathing, the legal personality of the child commences (Moosa, 2016).

Continuing from this rule, the constitution and the children’s rights from the South African law do not apply to an unborn foetus. It also follows that the constitutional right to life does not apply to a foetus (Moosa, 2016). This means that the foetus of a maternal brain death patient has no claim to a right to life and therefore there is no legal

obligation to ensure that it reaches viability and is born alive. In agreement with this rule, I claim that the foetus has no legal status and no right to life. In addition, there is no legal obligation to ensure that it is born safely.

McQuoid-Mason (2014) affirms that a foetus is not a person, and the termination of a viable foetus is considered an abortion and not murder. This means the death of the foetus as a result of withdrawing life support is not murder and therefore not illegal.

Legal status of the mother

Personhood and subsequently legal status are terminated once a person dies (Naidu, 2021). A brain-dead patient is not recognised as a full person by the South African law because she is dead and is therefore not a person but a previous person. This means she is no longer afforded legal rights or obligations (Naidu, 2021). However, because she was once a person with a past and family, the law honours the fact that their body needs to be treated with respect and dignity. Therefore, I claim that the mother has a higher legal status than the foetus which includes interests to being treated with respect and dignity.

In line with my claims, I argue that in the case of maternal brain death, there is a legal obligation to treat the mother's body with respect and dignity. This would entail respecting the body enough not to subject it to unnecessary intrusions and treatments. The foetus has a lower legal status than that of the of the mother and as a result, there is a less legal obligation to ensure it reaches viability and safe delivery.

To summarise the points raised in this section, the foetus has no legal status and therefore no right to life. However, the foetus does gain legal protection as the

gestational age increases. Even though the mother is deceased, the law still protects and promotes her dignity. I argued that the mother has right to be treated with respect and dignity which means she has a higher legal status than her foetus who has no rights.

4.4 Regulation on end-of-life care/intensive care

In this section, I will review the current regulations form the Health Professions Council of South Africa on withdrawing and withholding life support. I will begin by considering a few guidelines on the regulations that may provide some guidance on how to proceed in a maternal brain death case.

Guidelines

The guidelines do not contain specific recommendations on maternal brain death so I will argue that even though the regulations give guidance on end-of-life care, they do not provide any guidance on maternal brain death. I will also provide recommendations on how the regulations could inform health workers on how to handle a maternal brain death case ethically.

“Healthcare practitioners have a duty to give priority to patients on the basis of clinical need, while seeking to make the best use of resources and using up to date evidence about the clinical efficacy of treatments” (Health Professions Council of South Africa, 2016) is one of the guidelines included in the regulations provided by the health professions council.

This guideline emphasizes the importance of rationing intensive care resources. As I have previously claimed, rationing of healthcare services is morally justified and

necessary for fair resource allocation. The guidelines also state that healthcare practitioners have a duty to prioritise patients based on clinical need which is in line with my claim that it may not be fair for maternal brain death patients to take the place of another patient who may need the intensive care resources more.

The second guideline I will consider states that “When the patient or the family request continued treatment against health advice that considers such treatment to be futile, the patient or the family must be given the choice of transferring to another institution where such treatment is available. If this option is refused and the health team considers treatment to be futile, and this is confirmed by an independent healthcare practitioner, treatment may be withheld or withdrawn.” (Health Professions Council of South Africa, 2016)

This guideline reaffirms that it is ethical to withdraw treatment that is futile from a patient who has attempted paying for it and was unsuccessful. This is in line with the argument I had made about futile treatment. I claimed that administering life-sustaining care to a patient who will not recover, such as a woman with maternal brain dead, may be considered futile. Treatment that is futile is unethical since it costs money and may inflict suffering while giving no benefit. (Siegel, 2009).

The last guideline I will consider states that “The duty of physicians is to heal, where possible, to relieve suffering and to protect the best interests of their patients. There shall be no exception to this principle even in the case of incurable disease.” (Health Professions Council of South Africa, 2016). This guideline also serves as a principle, shows that the best interests of the patient are the most important consideration. As I

have previously argued, the maternal brain death patient is susceptible to experience many complications that are harmful if placed on life support. Therefore, withdrawing life support may be in their best interests.

Critique and recommendations for guidelines

The guidelines on withdrawing and withholding of treatment do not contain any recommendations on how to specifically treat a maternal brain death case. The Health Professions Council of South Africa has issued guidelines on end-of-life treatment and pregnancy but not on maternal brain death. Even though the occurrence of maternal brain death is rare but is slowly increasing, the professional's council should provide guidelines on such a controversial case to assist physicians and families of the deceased.

I recommend that the Health Professions Council of South Africa include in their guidelines a section on maternal brain death. In that section, I would recommend that they state that withdrawing life support from a maternal brain death patient is ethically permissible option for families to consider because of the complications associated with prolonged life support for a pregnant patient, the cost of prolonged life support, and the bodily integrity and dignity of the patient being compromised.

The guidelines should also include a recommendation for the family to seek counselling and further assistance from health care practitioners to help them reach a decision they are comfortable with. Additionally, if the family of the patient can afford to transfer her to a facility that can prolong her life until the foetus is viable, the guidelines should stipulate that they have the freedom to do so. If these guidelines are developed continuously,

they can help inform the legal aspect of maternal brain death with subsequent adjustments to the legislation.

In summary of the points in this section, I have analysed some of the guidelines provided by the Health Professions Council of South Africa on end-of-life care and have identified the guidelines that can help decisions on maternal brain death. Lastly, I have criticized the lack of guidelines that are specific to controversial cases like maternal brain death and have offered recommendations on such cases.

4.5 Maternal brain death case review

In this section, I will review a case of maternal brain death and apply the South African laws and regulations that I have previously discussed.

The Catarina Sequeira case

In December of 2018, a former international athlete named Catarina Sequeira, aged 26 and 19 weeks pregnant, suffered an asthma attack and was admitted at the Sao Joao Hospital in Porto, Portugal. A few days later she was declared brain dead and the hospital's ethics committee chose to keep artificially supporting her body until they can deliver the foetus via caesarean section at 32 weeks gestation (Warren et al., 2021).

The patient's maternal respiration began deteriorating and was compromised which led to the delivery of the child at 31 weeks weighing at 1.7kgs. The next day, Catarina Sequeira was removed from life support and circulatory death occurred (Warren et al., 2021).

The hospital ethics committee said that the evidence supporting the decision to continue artificial ventilation was important for two reasons: the strong agreement of her family

and the father that this would be her wish, and the fact that Sequeira had not opted out of Portugal's presumed consent law for organ donation. They contended that this indicated she would not object to continuing treatment in a brain-dead condition to preserve life (Warren et al., 2021).

The first point I would like to address is the maternal respiratory failure that occurred when the patient was 31 weeks gestation. I had previously claimed that a maternal brain death patient has a risk of several complications if she is placed on life support for extended periods. Some patients may experience these complications at an earlier stage and their foetus' may not survive.

The second point I would like to address is that the family and father of the child assumed that the patient would want to be kept alive because she had not opted out of the countries organ donation policy. They believed that it indicated that she would want to be kept alive to preserve the life of other and possibly her foetus.

The continuation of life support on a maternal brain death patient has been previously compared to organ donation because the mother is essentially donating her uterus to save her foetus (Said et al., 2010). Said et al. (2010) also believed that prolonging the life of the brain-dead patient was ethically justifiable if it was both for the purpose of the foetus' birth and organ donation from the mother. But this statement by Said et al. (2010) does not seem to address whether continued life support for the mother is ethically justifiable for the sole purpose of her foetus.

Regarding the Sequeira case, it does not seem to follow that just because the mother did not opt out of organ donation that she would also agree to being an incubator for the

foetus until it can be safely delivered. This is because the mother had agreed to donate her organs if she died but did not express any wishes concerning what she would want if she and her foetus were in danger.

The Sequeira case had taken place in Portugal however I would like to discuss the laws that would apply if this case had taken place in South Africa. The laws that would be most relevant to this case are the laws that have already been discussed in this chapter. Namely, the termination of pregnancy act, the legal status of the mother and the legal definition of death, the legal status of the foetus and regulations on intensive care and withdrawing/withholding life support.

As I have previously explained, the termination of pregnancy act may seem relevant to this case but its application to the case would be inadequate. This is because the act specifies that the termination of pregnancy is as a result of the expulsion or removal of the contents of the uterus whereas in this case, it is as a result of discontinued treatment to the brain-dead mother.

Since the mother is brain dead, the South African law would identify her as a dead person because of the legal definition of death. Consequently, the brain-dead patient would have the legal status of a dead person. This means that she has no constitutional rights to dignity and bodily integrity but should still be treated with respect and her body is legally protected from unnecessary bodily intrusions.

The foetus is not regarded as a person by the South African law and therefore has no legal status. However, as the gestational age increases the South African law provides protection for the foetus to not be killed unjustly.

In summary of the points I have made, there are no specific laws or regulations for maternal brain death cases and hospital ethics committees tend to evaluate the cases and make decisions independently. Withdrawal of life support from the brain-dead patientlike Sequeira, before foetal viability is not unlawful.

4.6 Chapter conclusion

In conclusion of the points raised in this chapter, I have argued that:

(i) The termination of pregnancy act cannot be used to legally guide a maternal brain death case due to the different causes of foetal death. In the act, the foetus dies from the expulsion of the contents of the uterus whereas in maternal brain death, the foetus dies as a result of the death of the mother.

(ii) Life support is an intrusive and sometimes harmful treatment that violates rights to her right to bodily integrity and dignity of the mother. Patient autonomy can be protected and promoted by legally authorised persons, but they need to be aware of that their consent can be influenced by many factors that can invalidate it.

(iii) The foetus has no legal status and hence no right to life. As the gestational age advances, however, the foetus gains legal protection from unjustified killing. The law preserves and promotes the mother's dignity even when she is no longer alive. I argued that the mother has the right to be treated with dignity and respect, implying that she has a superior legal status than her innocent foetus, who has no rights.

(iv) There are no defined rules or regulations governing cases of maternal brain death, and hospital ethics committees often review and make choices on their own.

Withdrawing life support from a brain-dead mother, such as Sequeira, before foetal viability is not illegal under the applicable laws and regulations.

(v) Some of the end-of-life care guidelines offered by the Health Professions Council of South Africa can aid with decisions about maternal brain death but are not sufficient. I have also questioned the lack of precise guidelines for controversial cases such as maternal brain death and have made recommendations for these situations.

Chapter 5: Objections chapter.

In this chapter, I shall address the overall counterargument to the central claim. I will begin by underlining some of the apparent objections to withdrawing life support from a maternal brain death patient and provide my responses to the objections.

In the first section, I will address the foetus's moral status as an objection to withdrawing life support treatment from a pregnant mother. I will argue that the foetus' moral status is inferior to that of the mothers and that the mother's moral rights are more important. In the second section, I will address the potentiality principle as an objection to withdrawing treatment from a maternal brain death patient. I will argue that the foetus's potential to become a person does not overrule the moral rights and status of an actual person (the mother).

In the third section, I will address the objection about the mother and the foetus's personhood. I will argue that despite the mother being brain-dead, her personhood is still superior to that of her foetus'. In the penultimate section, I will address other foetal rights and interests' arguments used to oppose abortion or the termination of a pregnancy. Finally, I will address and respond to other pro-life arguments.

5.1 Moral status of a foetus objection

For the first section of the chapter, I will address the objection about the moral status of a foetus and how it can influence a pregnant woman's right to bodily integrity and autonomy. Discussing the moral status of a foetus will also assist in understanding some of the claims made in personhood and potentiality arguments. I will view the moral status of a foetus under three considerations made by Isaacs (2003) and argue that a

foetus’s moral status does not take precedence over a pregnant woman’s right to autonomy and bodily integrity.

Many use a foetus’s moral status to oppose abortion or in this case oppose removing the pregnant mother off life support to ensure the foetus’s survival. I respond to this objection by showing that the foetus's moral status is highly contested and viewed in various ways whereas the mother is not.

Because it may interfere with a pregnant woman's ability to choose what happens to her body, the moral status of the foetus requires special attention. Moral status is rewarded to an entity if and only if it or its interests are ethically significant for the sake of that entity (Jarwoska and Tannenbaum, 2021). The foetus’ interest to life, moral rights and protection are significant for its existence and wellbeing and therefore it possesses a moral status. But because these interests are viewed and understood differently by full persons, the foetus’ moral status is questionable.

A foetus’s moral status can be considered in three ways, either that the foetus has equal moral rights to that of a live child, or a foetus’s moral status increases with the progression of the pregnancy, or that the foetus has no moral rights (Isaacs, 2003). These considerations tend to depict how individuals view and understand the moral status of the foetus.

Isaacs (2003) clarifies that if a foetus is considered to have full moral rights, it is considered as a separate entity from the mother, thereby making them two separate patients. This brings about conflict because full moral status indicates that the entity is

independent and autonomous however in the case of pregnancy, the foetus is still dependant on the mother (Isaacs, 2003).

A child under the age of eighteen is not regarded legally or ethically independent or autonomous, and hence lacks full moral status. As a result, the foetus lacks complete moral status because it still relies on the mother for safety and nourishment. For this reason, I argue that a foetus cannot be awarded full moral status.

Furthermore, granting a foetus full moral rights would pose a threat to the pregnant mother's autonomy and can lead to unjust restrictions of the pregnant mother's interests (Isaacs, 2003). I acknowledge and don't dispute the need to restrict maternal behaviour that might harm the foetus like excessive alcohol and narcotics consumption. Even though awarding a foetus full moral rights would protect them from unjust killing, it would also infringe on women's moral right to make decisions about their bodies (autonomy and bodily integrity) (Isaacs, 2003).

Recalling from my previous argument made in the second chapter, I had argued that the mother and the foetus are two different patients and the mother, as the primary patient, should have her interests promoted and by her physicians. This claim could be seen to support the view that the foetus should be granted full moral status and rights and be treated as an individual patient. Nevertheless, my claim is not to infer that a foetus has full moral rights but rather that the mother's moral status is indisputable and should have a higher consideration because she is a full person.

Isaacs (2003) suggests the next view of foetal moral status that is in contrast to the previous consideration, is the view that a foetus has no foetal rights. Theorists in

support of this view believe that a foetus has no moral status and rights outside of its mother and therefore acquires these rights at birth (Isaacs, 2003). When substantiating this view, they claim that new-borns, unlike foetuses, are members of a social world and that entry into that world provides moral status. A serious implication of this view is that it would give pregnant women the moral right to abort a viable and fully developed foetus but not to kill her new-born (Isaacs, 2003)

This viewpoint on the moral position of a foetus can be problematic since feminists use it to frequently portray the unborn as a parasite or villain to the mother (Isaacs, 2003). Isaacs (2003) points out giving the foetus these malignant characteristics appears to be shifting the blame or guilt of terminating the pregnancy. I don't support the views about no foetal rights nor the feminists' implied viewpoint on it. I believe that having some moral status as a foetus is required so that it can remain protected from unjust treatment.

Apart from that, claiming that a foetus has no moral status or rights is unsound because it was already established that moral status is possessed by an entity if and only if its interests are ethically significant for the sake of that entity. Therefore, a foetus does have moral status because its interests are ethically significant and prevent it from being killed unjustly. However, this moral status is not more significant than that of the mother.

The last viewpoint about foetal moral status is that the foetal moral status increases with the progression of the pregnancy. This viewpoint essentially means that the foetus gains moral status with advancing gestation. Many laws and regulations about the

termination of pregnancy agree with this viewpoint as there is a clear distinction between an early abortion and terminating a viable full-term foetus (Isaacs, 2003).

Even though I agree that the foetus's moral status increases with gestation, I still believe that the mother's moral status is superior to the foetus and is unquestionable.

I believe the mother's moral rights to autonomy and bodily integrity supersede those of her foetus and even if she is incompetent and cannot exercise her autonomy, she should not be violated, and the foetus's interest should not trump any considerations for her body and how it is treated.

To summarise this section, I have discussed the moral status of a foetus and provided the different viewpoints of it. Additionally, I have argued that withdrawing life support, which leads to the foetus' death, is not unethical since the foetus does not have full moral status, but one that grows as the pregnancy progresses.

5.2 The Potentiality objection

In this section of the chapter, I will be addressing the potentiality principle as an objection to withdrawing life sustaining treatment from a maternal brain death patient. I will start by explaining the potentiality principle and how it has been used as a counterargument to not providing life support to a pregnant mother. Following this, I will respond to the objection.

The potentiality principle nowadays is almost exclusively used by Catholic moral theorists as an argument against the termination of a pregnancy, to provide full moral status to nascent human organisms. That includes foetuses, stem cells, in vivo and in vitro embryos. Essentially, this principle states that foetuses and embryos should not be

killed or destroyed because they possess all the characteristics of adult persons that they will have in future.

Therefore, an objection could be raised against the central argument of the paper because the withdrawal of life support from the brain-dead patient will result in the death of the foetus (a potential person).

The argument for potentiality also known as the potentiality principle is founded upon one of Aristotle's formulations (Morgan, 2013). The formulation upon which the principle has been formed is Aristotle's notion about the relationship between the potential and the actual. According to Aristotle, things could not exist without potentials however, actuals are the only ones that can realise potentials. Furthermore, theorists in support of the principle attach potentiality to concepts of humanness and qualities of personhood like sentience, rationality and consciousness (Morgan, 2013).

From this, advocates of the potentiality principle argued that "all potential people have a fundamental right to life," and that stem cells, embryos, and babies should not be destroyed since they are potentials or intrinsic persons (Morgan, 2013). In the case of a brain-dead pregnant mother, they would be in favour of the mother being placed on life support until the baby can be born safely.

I respond to the objection by underlining Judith Jarvis Thompson's (1970) claims, which changed the debate's focus about terminating a pregnancy, from foetuses to pregnant women, by compelling philosophers to address the moral grounds by which pregnant women may be obliged to support the life of other persons.

In her argument in defence of abortion, Thompson (1970) states that the main premise for an argument against abortion is that a foetus is a person. She reveals that this argument is flawed because it presents as a slippery slope argument. She uses the example that an acorn is not an oak tree (Thompson, 1970) just like how a seed is not a plant. Essentially, a point is being made the potential of something is not equal or synonymous with the actual thing. Similarly, the foetus as a potential person is not the same as an actual person.

I agree with this assessment that a foetus is a potential person but not an actual person and therefore their interests should not be prioritised more than the mother who is an actual person. In the following section, I will review and discuss the concept of personhood and its relation to the overall argument. The concept of personhood will form a logical progression from the points made in the current section.

To summarise this section, I have expressed the potentiality objection that states that a foetus should not be killed because it possesses the characteristics of a full person. I responded by maintaining that a foetus's interests should not be prioritised over the mothers because they are not a full person even if they possess all the characteristics to become a full person.

5.3 'Personhood of the mother vs personhood of the foetus' objection

In the previous sections, I have argued that the mother in the central argument of my paper is an actual person and has a higher moral status and subsequent rights compared to her foetus. However, because the mother is brain-dead, her personhood becomes as questionable as the foetus's. Th context in which personhood will be discussed has been mentioned in section 2.1.

In this section, I will review and discuss the concept of personhood. I will discern between the personhood of the mother and that of the foetus to establish the differences that would favour considerations for the mother and her interests.

The concept of personhood exists in several disciplines but for the purpose of this paper, I will acknowledge it as a relational, developmental and ethical category prescribing a fundamental human right (Young, 2019). Personhood is mostly discussed in terms of assigning moral status to individuals at a specific stage of development (Miklavcic and Flaman, 2017) therefore when personhood is awarded, so is moral status.

Personhood of the foetus

There are varying hypotheses about when a human being becomes a person. The first, which is a typical objection to my overall argument, is that personhood begins at conception and that personhood is inherent in a human being at all stages of development (Miklavcic and Flaman, 2017). Furthermore, this argument would support that because personhood begins at conception, a human being has full moral status at all levels of development. This coincides with common anti-abortion arguments and the beliefs of religious ethics which are discussed later in the chapter.

This hypothesis differs from the second one offered by Miklavcic and Flaman (2017) that states that personhood (and moral status) is granted at a point in the development of a human. This view is in line with my previous argument about increasing moral status with increasing gestation.

So, as an objection to my argument, one could argue that withdrawing life support from a pregnant brain-dead patient is also murdering the foetus who is a person with full moral status. Thereby making this action morally unjustified.

To respond to this objection, I point out that granting foetus personhood and full moral status from conception indicates that the foetus is viewed as independent and autonomous which is untrue because the foetus is completely dependent on the mother for its survival and is not an autonomous being as it cannot be rational and make decisions (Isaacs, 2003) Hence, I reiterate that the foetus's personhood and moral status cannot be equated to that of an adult person. And withdrawing life support from the pregnant brain-dead patient is not murder even though it will result in the death of the foetus.

Personhood of the mother

Since I argued that the foetus is not a person and does not have personhood or full moral status, it can be argued that the brain-dead patient also lacks these ethical parameters. On that account, an objection could be raised that the brain-dead mother's personhood and moral status are not superior to that of the foetus.

I respond to that the objection by stating that the mother's social identity is still preserved and that her personhood is defined by the life she lived and the relationships she had. I advance my response by further discussing the personhood of unconscious persons.

Advancements in life-sustaining treatments have allowed for an increase in the number of people who exist with minimal responsiveness, and their existence brings about

doubt in notions of consciousness, responsiveness and personhood (Blain-Moraes et al., 2018). The introduction of life-sustaining technology led to a new description of persons that were unintentionally created in the form of individuals whose bodily functions were maintained by machines but exhibited no signs of responsiveness.

Previously, it was shown that some definitions or criteria on personhood involve consciousness. Blain-Moraes et al. (2018) identify that the relationship between personhood and consciousness is heavily intertwined, but they are separate constructs. It is said that consciousness entails a subjective experience and is described as a state of being aware and perceptive of external stimuli. Blain-Moraes et al. go on to say that that one's consciousness can be connected (like when you are awake) and disconnected (when you are asleep) and that its presence (or absence) is not reliant on the interaction with others.

As previously stated, the introduction of life support measures has complicated the boundaries and definitions of personhood. Different levels of consciousness caused by brain injuries (like brain death, vegetative state, coma) produced obstacles in defining the personhood of such patients. In the case of brain death, a new definition of death was created which encompassed this diagnosis, therefore, addressing the consciousness and personhood of the brain-dead patient (Blain-Moraes et al., 2018). This meant that a patient who was declared brain-dead is considered dead and has no consciousness and thus no personhood. This remains a debatable stance because of all the different definitions of personhood.

The consciousness and personhood of other unresponsive patients remain ambiguous. This is seen in the discussion made by Blain-Moraes et al. (2018) about patients diagnosed with unresponsive wakefulness syndrome. The unresponsive wakefulness syndrome patient is described as unresponsive and unaware (Blain-Moraes et al., 2018) but they are not dead which complicates their personhood. Due to a lack of conscious awareness from the patient, several attitudes and behaviours have developed that suggest these individuals are no longer persons (Blain-Moraes et al., 2018).

I disagree with the view that a brain-dead pregnant patient no longer possesses their personhood. This is because it has been established that personhood can be viewed and defined in several different ways. Personhood is established in certain cultures not by an individual's physical or mental capabilities, but by the space of continuous human connections. As a result, "persons" are a dialogical construct, and even a brain-dead patient is still a person since their social identity is preserved (Blain-Moraes et al., 2018).

To summarise the points made in this section, I have addressed the objection that the mother's personhood is just as questionable as the foetus's because she is brain dead. I have responded by highlighting that the brain-dead mother's personhood is still superior to the foetus's because her social identity is preserved.

5.4 Foetal rights and Interests objection

In this section of the chapter, I will briefly discuss the objection of foetal rights and interests and when they conflict with maternal rights and interests. I will consider the moral dilemma of maternal-foetal conflicts and apply it to the maternal brain death case.

Maternal-foetal conflict arises when there are conflicting courses of action between the mother and the foetus. In pregnancy cases, when a physician considers that their duty to respect a patient's decision clashes with her duty to safeguard the foetus from harm, a moral problem can develop (Flagler et al., 1997).

In the instance of maternal brain death, the mother's right to bodily integrity and autonomy could conflict with her foetus's interests. More specifically, the dilemma lies between not subjecting the brain-dead pregnant mother to futile and intrusive life support and keeping the foetus alive until it can survive outside the womb.

An objection could arise that would state that withdrawing life support from a brain-dead pregnant mother disregards the foetus's interests in being protected from being killed unjustly. I respond to this objection by affirming that withdrawing life support from the brain-dead pregnant mother is not killing the foetus unjustly and that the interests of the foetus are not superior to that of the mothers.

I also agree and endorse the claims made by Flagler et al. (1997) that the conflict is not between the pregnant mother and the foetus but rather between the pregnant mother and those who believe they know best on how to protect the foetus. This seems to be the case in my overall argument. The conflict is indeed between the pregnant mother and the stakeholders (physicians, family or the state) who believe they know best how to protect the foetus. My claim is not to say they do not know best but rather to suggest that the "best" thing for the foetus can present in different ways as previously shown in my prior arguments.

One is that it is unsound to assume that the brain-dead patient would want to be kept on life support for the sake of her foetus as she is no longer aware of it and her connection to it. This is also affirmed by Flagler et al. (1997) who says that the term "maternal-foetal conflict" is misleading since the word "maternal" implies a parental commitment or obligation to the foetus. This parental commitment does not apply to the brain-dead patient since she is unaware of her foetus, as argued previously. Secondly, extending the mother's life via life support measures is harmful to her and does not guarantee the successful delivery of her foetus.

In summary of the points addressed in this section, I have responded by stating that withdrawing life support from the mother does not result in the unjust killing of the foetus and that foetal interests do not take precedence over maternal interests. I have also shown that the conflict does not lie between the mother and the foetus but rather between the mother and other persons of interest i.e., her doctors, family or the state. And that such persons of interest need to consider various options in the best interests of the mother and foetus.

5.5 Pro-life objection

For the last section of the chapter, I will address some of the pro-life arguments that can be used to refute my argument. Because the withdrawal of life support from a brain-dead pregnant mother will result in the termination of her pregnancy or rather foetal death, I will consider anti-abortion arguments and address them and their relevance to the maternal brain death case.

Religious arguments have often been used to argue against abortion. Since 95% of the South African population is religious (Jogee, 2018), it would be expected that religious

ethics would be used to object against the withdrawal of life support from a pregnant brain-dead patient because it would result in the death of her foetus. Nevertheless, South Africa has one of the most liberal abortion laws that promote a woman's legal (and ethical) right to bodily integrity, privacy and reproductive health (Jogee, 2018).

Religious ethics are moral ideas that govern religions and regulate whether believers' conduct should be condemned or tolerated. As a result, these ideas serve as a foundation for moral debate on a variety of topics, including abortion (Jogee, 2018). All the predominant religions in South Africa namely Christianity, African Traditional Religion, Islam, Hinduism and Judaism, agree that abortion is wrong but can be permissible under certain circumstances.

Abortion is prohibited under Jewish law; however, it is permissible if the expectant mother's life is threatened. Abortion is forbidden in Catholicism because life begins at conception. Furthermore, orthodox Catholics believe that if abortion is permitted, the unborn should not be subjected to direct injury, as is the case with surgical abortion techniques. Islam permits abortion when it jeopardises the life of the mother and before the foetus acquires ensoulment which occurs four months of gestation (Jogee, 2018).

The procurement of abortion is expressly forbidden in Hindu scripture, as it contradicts the Hindu principle of nonviolence and fails to recognize foetal life unless in life-threatening situations. African traditionalists believe that abortion is the same as murder since personhood begins at conception. As a result, traditionalists reject abortion; nonetheless, they allow abortion only in circumstances of rape and incest (Jogee, 2018).

On that account, it is clear to see that majority of the religions in South Africa denounce abortion unless under extreme circumstances like rape, incest or endangering the life of the mother. It is safe then, to assume that in the case of maternal brain death, most religious individuals would advocate for the mother to be placed on life support until the foetus is viable.

To respond to religious ethics as an objection to withdrawing life sustaining treatment from a pregnant mother, I say that even though South Africa has a significant religious population, the country is not governed by religious ethics but rather secular morality (supported by the constitution) (Jogee, 2018). Therefore, normative principles can be used in cases of maternal brain death as I have shown in my previous arguments.

To summarise the points, I have made in this section, I have shown that religious beliefs and religious ethics condemn abortion, and it is an expected objection from a highly religious country. I responded by stating that even though South Africa has a highly religious population, it is still a secular nation and therefore the normative arguments I had previously made still stand.

5.6 Chapter conclusion

To conclude to the points made on the objections to my overall argument, I have responded by pointing out that:

(I) Withdrawing life support which subsequently results in the death of the foetus is not unethical because the foetus does not have full moral status but one that increases with the progression of the pregnancy.

(II) The death of a foetus that possess the characteristics of a full person is not unethical because they are not a full person with full moral status and rights. Therefore, the interests of the foetus should not be prioritised over the mothers.

(III) The personhood of the brain-dead patient is still superior to the foetus's because her social identity is reserved. Therefore, her moral status and interests are more important than the foetus's.

(IV) Because the foetus has increasing moral status with increasing gestation, it still has interests to being protected from unjust killing. However, withdrawal of life support from the mother does not result in the unjust killing of the foetus.

(V) Despite the fact that religious views oppose the termination of pregnancy and South Africa has a large religious population, the country is still a secular state, and moral and legal rights to abortion protect women's bodily integrity and autonomy.

Conclusion

Based on the arguments I have provided, I believe that it is morally justifiable to withdraw life support from a pregnant brain-dead patient before her foetus is viable for a live birth. I have made several arguments supporting my claim, they are:

Keeping a brain-dead pregnant woman on life-support objectifies her and treats her as a consumable body which does not preserve her dignity and autonomy, diminishes her bodily integrity, and taints her perception by others. Thus, the physician has a duty to treat and protect the rights and interests of the mother as the primary patient from being treated as a mere means to sustain the life of her foetus. Despite the mother's diagnosis of brain death, I argued that the patient's bodily integrity, dignity, and hence autonomy should be honoured and protected. Therefore, it is permissible to withdraw life support from a pregnant brain-dead patient to preserve her rights and interests to autonomy, bodily integrity and human dignity.

The second argument is that physicians and the family of a pregnant brain-dead patient should assess the risks and benefits of extended life support and make decisions that prevent harm while promoting goodness. Several likely complications may be experienced by the pregnant brain-dead patient that seems to outweigh the benefit of a probable live birth of her foetus. Although there have been successful foetal births as a result of giving life-support to the brain-dead mother, this does not ensure successful foetal delivery, since less than half of all documented cases had successful births. Even if life-saving treatments have advanced, they do not remove the risk of severe complications for the mother. Withdrawing life support may be in the patient's best interests since they will be spared physical intrusions and harm.

The third argument is that there is a high cost of intensive care services in South Africa and therein the likely expense of providing life support to a brain-dead pregnant mother. South Africa has a resource limited healthcare system which warrants the rationing of healthcare resources. It is ethically justified to ration healthcare resources in a resource-

limited setting to ensure the fair allocation of the resources. The rationing of resources does not permit providing futile treatment as it may take up space for patients who would benefit from that care. Futile treatments to brain-dead patients reduce bed availability and should not be rendered to patients who can afford it as there is no legal or ethical duty upon the physician to do so.

My fourth argument states that the foetus has no legal status and hence no right to life. The mother has the right to be treated with dignity and respect, implying that she has a superior legal status than her innocent foetus, who has no rights. There are no defined rules or regulations governing cases of maternal brain death, and hospital ethics committees often review and make choices on their own. Withdrawing life support from a brain-dead mother, such as Sequeira, before foetal viability is not illegal under the applicable laws and regulations. Some of the end-of-life care guidelines offered by the Health Professions Council of South Africa can aid with decisions about maternal brain death but are not sufficient.

Lastly, withdrawing life support which subsequently results in the death of the foetus is not unethical because the foetus does not have full moral status but one that increases with the progression of the pregnancy. The personhood of the brain-dead patient is still superior to the foetus's because her social identity is reserved. Because the foetus has increasing moral status with increasing gestation, it still has interests to being protected from unjust killing. However, withdrawal of life support from the mother does not result in the unjust killing of the foetus. Despite the fact that religious views oppose the termination of pregnancy and South Africa has a large religious population, the country

is still a secular state, and moral and legal rights to abortion protect women's bodily integrity and autonomy.

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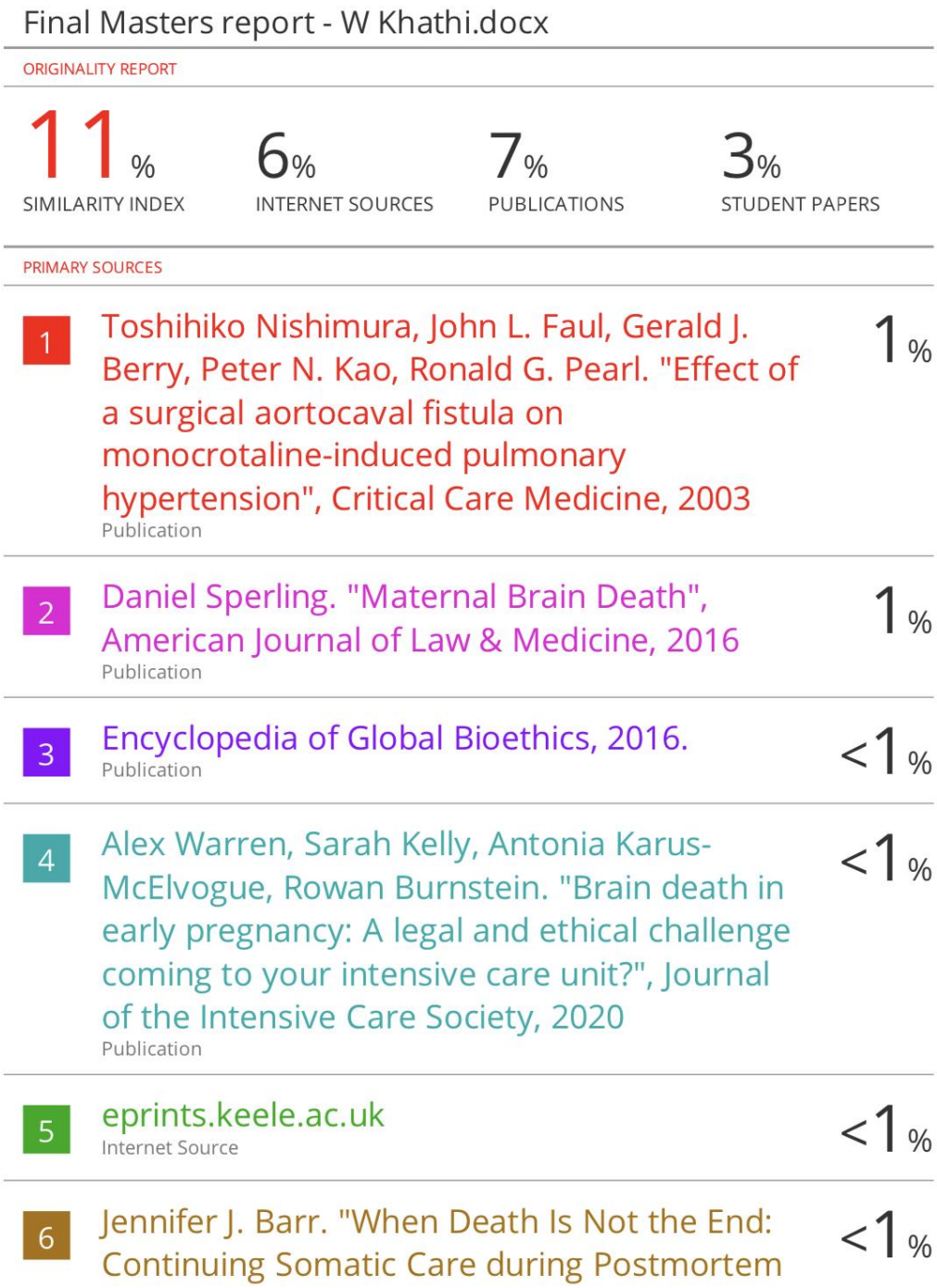

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