THE ETHICAL AND SOCIAL ISSUES RELATED TO BECOMING A PARENT LATER IN LIFE

Rentia Fourie

Student Number: **2619260**

A Research Report Submitted to the Faculty of Health Sciences, University of the Witwatersrand (Wits) Johannesburg, in partial fulfilment of the requirements for the degree of Master of Science in Medicine (Msc. Med) in Bioethics & Health Law

Steve Biko Centre for Bioethics

Supervisor: **Prof Kevin Behrens**

BA, Hons BTh, MA, D Litt et Phil, PGDip

Submitted: May 2025

TABLE OF CONTENTS:

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND

Society is bombarded by the media reporting about celebrities becoming parents in their sixties and seventies, and some even in their eighties (Neil, 2024, n.p.). However, not only the rich and famous have children later in life[1]. The average maternal age has increased by four years since 1970 and continues to do so rapidly (Shulevitz, 2012, n.p.). The emancipation of women is essentially the cause of this shift. Some of the reasons why women delay having children include waiting to find the right partner, taking time to build a career to ensure financial stability for their family, struggling to conceive, having to save money for reproductive assistance, and waiting for medical technology to advance to a point where they can have children with reproductive assistance (De Clercq, Martani, Vulliemoz, Elger & Wangmo, 2023, p 594). Society has come far to empower women, fighting for their rights and freedom to choose. With the help of contraceptives and the advances in reproductive assistance, women can pick a time in their lives that suits them to have a child (Hendricks, 2016, n.p.). Gillis (2012, n.p.), a journalist, writes that assisted reproduction technology today is what birth control was in the 1960s.

Women having babies in their late fifties and early sixties are not breaking records any more (Appel, 2009, n.p.). The oldest mother recorded up to 2024 is Mangamma Yaramati, who gave birth at the age of seventy-four (Neil, 2024, n.p.). With technologies like artificial

[1] I discuss the terminology used for people having children after the age that is accepted in the medical field as the ideal reproductive years later in this section. I deliberately use the term “later in life” because it is vague and inclusive as it refers to both men and women. I think this term is more appropriate to use in ethical discussions.

hormone replacement, in vitro fertilisation, egg freezing, embryo freezing and even ovarian tissue freezing, a woman can fall pregnant at almost any age (Saletan, 2009, n.p.). Gathering from the comments on social media and opinion pieces written by social critics, when yet another celebrity announces the birth of a child outside their golden reproductive years[2], society seems to agree that there are some ethical and social issues to debate relating to becoming a parent later in life. Appel (2009, n.p.), a bioethicist and medical historian, writes that there is an ongoing debate about whether pregnancies in older women is a right that extends from a woman's freedom to choose her reproductive path or if it is reckless. The pivotal age limit at which a woman becomes part of this judgmental debate is less evident in the media and academic literature. On the other hand, older men who become parents later in life are praised and admired for their virility and spared the judgement that older women endure (Appel, 2009, n.p.). Since men can reproduce throughout their lives, the terminology and age cut-offs used to categorise older parents strictly refer to women.

Before I can identify and discuss any of the ethical and social issues associated with becoming a parent later in life, I will have to clarify when "later in life" is. Various non-standardised terms and age cut-offs are used in the medical field, ethics academic literature and mainstream media to refer to people, more specifically women, who become parents later in their lives. The only consensus between these terms seems to

[2] I use the term "golden reproductive years" to refer to the medically accepted age of women being most fertile before the age of thirty-five. I discuss this in more detail in the next paragraph. Men are fertile throughout their lives and so this term strictly refers to women. The age at which men are considered an older parent is less clear.

be that they generally refer to women who become mothers after their golden reproductive years.

According to the information page of the American College of Obstetricians and Gynecologists, a woman is most fertile between her late teens and late twenties (American College of Obstetricians and Gynecologists, February 2023, n.p.). By the age of thirty, her fertility starts to decline, and by the age of thirty-five, this decline in fertility increases exponentially until the age of forty-five, when she is unlikely to conceive without reproductive assistance (American College of Obstetricians and Gynecologists, February 2023, n.p.). So, women becoming parents after age thirty-five do so outside their golden reproductive years. The medical field uses the term “advanced maternal age” to refer to a pregnant woman above the age of thirty-five years (Instituto Bernabeu - Clínicas de Reproducción Asistida, 2020, n.p.). This categorisation helps medical professionals to mitigate the health risks to both the mother and baby, like gestational hypertension, gestational diabetes, stillbirth, premature birth and low birth weight babies associated with pregnancy in women over the age of thirty-five (Instituto Bernabeu - Clínicas de Reproducción Asistida, 2020).

Despite the health risks historically associated with pregnancy in women older than thirty-five, fertility clinics have informal and unofficial age cut-offs when they turn away women seeking reproductive assistance. Some clinics use the age limit of forty-five years, for reasons that are unclear, while others use the age limit of fifty years because when a women reach the age of fifty, the average age around which menopause occurs, she is

medically considered too old to have a child (Instituto Bernabeu - Clínicas de Reproducción Asistida, 2020, n.p.). Assuming from the celebrities bearing children in their late fifties or early sixties, some clinics do not have any age limitations, or they may be persuaded to adjust their age cutoffs. If it is true that, despite the medical advances since the term “advanced maternal age” made its way into the medical field, there are still unavoidable health risks to the mother and baby, these non-standardised arbitrary maternal age cut-offs that fertility clinics implement are not logical. Like Appel (2009, n.p.), I wonder if these cut-offs are enforced to prevent the health risks posed to the mother and baby, or are they based upon the ethical and social issues parenthood later in life poses? Supporting the perception that the age limit used by fertility clinics is most likely based on the health risks of the pregnancy and not the other social or ethical issues is the fact that none of these age limits takes the age of the father into account (Caplan & Patrizio, 2010, p 283). However, Appel (2009, n.p.) writes in his article that during an off-the-record conversation with the head of a fertility clinic in America, it became clear that these age limits imposed by fertility clinics have little to do with the prevention of harm to the health of the mother and child and more to do with social and perceived moral concerns. I elaborate on the ethics of reproductive assistance and age in section 3.3 (p 35), but it is evident that the terminology used in the medical field and the age cut-offs of fertility clinics are problematic and inappropriate to use when discussing the ethical and social issues of becoming a parent later in life (Appel, 2009, n.p.).

Putting the medical terminology and age cut-offs aside, ethicists writing about reproductive assistance and age have also used conflicting terminologies in their articles

when referring to women wanting to become mothers later in life. William Saletan (2009) coined the term “middle-aged motherhood” when writing a negatively judgmental opinion piece about older mothers. However, this term is vague and not helpful in determining what exact age he refers to because a person is considered to be middle-aged between the ages of forty-five and sixty-five (Schroeder, 2024, n.p.). As people’s socioeconomic status improves and medical care advances, women are not as frail as they used to be at a certain age, so the age we regard as middle age is shifting because people are living longer (Saletan, 2009, n.p.). Caplan and Patrizio (2010) used the terms “older mother,” “older parenthood,” and “women who have children later in life” in their article about reproductive assistance and egg donation. They wrote about ethical issues like life expectancy and medical problems like pregnancy complications, so it is unclear and difficult to assume which age group they are referring to. Generally, it seems they refer to women over forty (Caplan & Patrizio, 2010, p 283). De Clercq et al. (2023, p 593) use the terms “delayed childbearing”, “advanced motherhood”, and “older mother” in their article and wrote that there is no specific age at which a woman is considered to be too old to become a parent. They mention that their terminology has little to do with an exact age and much more about how old a woman looks (De Clercq *et al.*, 2023, p 593). It is important to note that, as in the medical field, the terminology ethicists use only refers to women and that there is no terminology to discriminate against men who become parents later in life. I will address this discrimination in section 3.2 (p 30), which discusses the fairness of differing degrees of judgement of the older mother vs the older father.

Due to the inappropriateness of the medical terminology when extrapolated to the ethical discussion and the unclear and conflicting terminology used by ethicists, I will use the term “later in life” in this report. The term “later in life” refers to people becoming parents after their golden reproductive years and is deliberately vague, so men are also included in this term. It is also not directly related to medical terminology, and I think it is more appropriate when the ethical and social issues of becoming a parent are discussed. It also allows for the notion that a person should consider the social and ethical issues of becoming a parent in a specific life stage as life goes on. The right to reproduce should not be considered absolute and should gradually wane as a person ages.

1.2 RESEARCH QUESTION

What are the ethical and social issues related to becoming a parent later in life?

1.3 RATIONALE FOR THE STUDY

The phenomenon of becoming a parent later in life is not exclusive to celebrities who announce their new parenthood at an extreme age in the media. People have children later in life, as shown by the recorded increase in average maternal age. Medical advances in the field of reproductive assistance are making it possible for people to become parents even after the age at which fertility starts to decline. When seeing a child with a parent who looks like they should be the child’s grandparent, some people are eager to express an opinion on whether it is right or wrong. In this report, I start by discussing why people who become parents later in life are judged and the ethical grounds of this judgement, which are complicated by conflicting, vague, and arbitrary

terminologies and age cut-offs. It is advisable for prospective later in life parents to realise that they might be judged by society and to decide beforehand how they are going to deal with it. Women who become parents later in life need to realise that the degree of judgement they endure differs from the judgement of men becoming parents later in life. I will discuss why women becoming parents later in life can expect harsher judgement from society about their choice than older men. There are ethical concerns regarding reproductive assistance that fertility specialists and fertility clinics do not explicitly address. In this report, I will point out the pertinent issues that prospective later in life parents should consider before they seek reproductive assistance. However, reproductive assistance is only one of the issues related to becoming a parent later in life. Apart from the seemingly apparent issues when a person becomes a parent at an extreme age, like when the actor Al Pacino became a father at the age of eighty-three, there are a host of ethical and social issues that need to be considered even by those becoming parents in their forties. The academic literature on this topic remains fragmented and is dominated by the issues regarding ageism in reproductive assistance and motherhood. In this report, I will point out and discuss the pertinent ethical and social issues relating to becoming a parent later in life, which a person needs to consider as part of the preparation and planning for later life parenthood. It is essential to point out this unique set of ethical and social dilemmas so that a person can consider how they will deal with the issues during their different life stages before they become a parent at an older age. These issues are the issues that even older adoptive parents will have to face.

The main objective of this report is to put all the pertinent ethical and social issues of becoming a parent later in life, that are suggested or written about, together so that they can be discussed in the same context and using the same terminology. Only after a standard has been set can one begin to argue whether a person's right to parenthood should diminish as they age or if there should be an age cut-off when the right ought to be taken away. This report should be a point of reference for further discussion on this topic, which hopefully will include academic debate and involve people becoming parents later in life. The discussions in the report should be accessible to the public, especially to people who are considering becoming parents at a later stage in life, maybe in the form of a booklet distributed by fertility clinics to help guide them through their decision-making process and highlight the different issues that they need to consider.

1.4 RESEARCH AIM

To describe and critically discuss the ethical and social issues related to becoming a parent later in life.

1.5 RESEARCH OBJECTIVES

1. To give an overview of what is available in the academic literature and the open media on this topic and to point out the gaps in the literature.
2. To describe, explain and analyse the ethical and social issues of becoming a parent later in life.

1.6 RESEARCH DESIGN

This is a normative bioethical project describing and critiquing the most pertinent ethical and social dilemmas related to becoming a parent later in life. A helpful description of normative bioethics is provided by Daniel Sulmasy and Jeremey Sugarman as set out in the guide for developing and submitting a research proposal of the Steve Biko Centre of Bioethics ('Steve Biko Centre for Bioethics, no date, p 9). Sulmasy and Sugarman describe three basic types of ethical inquiry: normative ethics, metaethics, and descriptive ethics.

> "Normative ethics is the branch of philosophical or theological inquiry that sets out to give answers to the following questions: What ought to be done? What ought not to be done? What kinds of persons ought we strive to become? Normative ethics sets out to answer these questions in a systematic, critical fashion and to justify the answers that are offered. In medical ethics, normative ethics is concerned with arguments about such topics as the morality of physician-assisted suicide or whether it is morally proper to clone human beings. Descriptive ethics does not directly engage questions of what one ought to do or the proper use of ethical terms. Descriptive ethics asks empirical questions such as: How do people think they ought to act in this particular situation of normative concern? What facts are relevant to this normative ethical inquiry? How do people actually behave in this particular circumstance of ethical concern? While all these types of ethical inquiry are important, normative ethics seems to be at the core of ethical inquiry." (Sugarman & Sulmasy, 2010, p 3-4).

Normative ethics is not only prescriptive, but it is also descriptive. Before one can be prescriptive on what ought to be done or how one ought to act in a specific situation, one needs to analyse how people are currently acting in these circumstances and what relevant facts make them do so. This analysis will point out the weaknesses or shortcomings of the current moral judgements, and it could be that the new knowledge suggests that one ought to act differently. The purpose of this report was, first and foremost, to compile a description of the most pertinent social and ethical concerns related to becoming a parent later in life and to consider the varying and conflicting opinions on how one ought to regard people becoming parents later in life. Due to the scant and fragmented literature on the topic, this descriptive framework formed the basis of the prescriptive argument on how one should change one's bioethical reasoning in light of the available information.

1.7 RESEARCH METHODS

The Steve Biko Centre for Bioethics describes normative methods as follows:

> "The typical research methods and standards applicable to philosophical research are employed. The report will include a brief overview and discussion of the findings from the literature. This primarily involves interpreting and critically analysing the most critical texts, postings and relevant government legislation to answer the research question. The analysis of the relevant texts will include definitions and clarification of concepts, the identification of criticisms and assumptions, the analysis and evaluation of theoretical

frameworks, and the articulation of the most reasonable interpretation of significant concepts found in the sources of literature retrieved from but not only limited to research articles, books, computer-accessible databases, government legislation, and other academic search engines for the gathering of data. No new data will be collected or analysed, and the research does not include human participants“ (Steve Biko Centre for Bioethics, no date, p 9).

1.8 LIMITATIONS

Even though outstanding newspaper and magazine articles are available on this topic, the academic literature remains fragmented and scarce. The literature review might be complex as there is no clear definition of who exactly qualifies as an older parent, and no terminology exists when talking about people becoming parents later in life. The terms “older mother” or “advanced maternal age” are medical terms that refer to women above the age of 35 years and will not be used as terms when scoping the literature. It is, however, pertinent to draw whatever literature available on the subject into one project so that this can form the basis on which the rest of the discussion on this topic will be built.

1.9 ETHICS APPROVAL

This purely normative project did not involve empirical research involving human or animal subjects, so no ethical approval was required. The Masters degree assessor committee appointed by the Faculty confirmed this.

CHAPTER 2: OVERVIEW OF THE LITERATURE

Social media, webpages, and magazines are exploding with the birth announcements of celebrities who have children late in life. In 2023, Al Pacino welcomed the newest addition to his family at eighty-three and Robert de Niro shortly after fathered a baby at seventy-nine (Staff, 2023, n.p.). Not only older men have children later in life; Naomi Campbell had her second child at fifty-three, and Hillary Swank had twins at forty-eight (Gruber, 2023, n.p.). Becoming a parent later in life is not an exclusive phenomenon among celebrities. Fertility specialists worldwide have been pushing the boundaries of reproductive assistance. The oldest mother recorded to date, Manyagamma Yaramati, gave birth at seventy-three (Neil, 2024, n.p.). In 2006, Maria del Carmen Bousada de Lara gave birth to twins at the age of sixty-six and died in 2009, leaving her twins orphaned. She was pronounced to be irresponsible and selfish, and many ethicists, like Appel (2009, n.p.), Caplan and Patrizio (2010, p282) and Saletan (2009, n.p.), used her case as an example in their debates about reproductive assistance in older women.

Even though reproduction is considered a basic right, it seems like there is a general perception in society and amongst ethicists that this right should be taken away at some point in a person's life (Caplan & Patrizio, 2010, p 285; McGuiness & Widdows, 2016). However, people becoming parents later in life are being judged without anyone having a clear idea of at what age the right to parenthood should be ethically questioned. Literature about becoming a parent later in life mainly focuses on reproductive assistance and the age at which a woman should be considered too old to have access to the

technologies available to extend her reproductive freedom (Caplan & Patrizio, 2010; De Clerq *et al*., 2023; Savulesco, 2001). This literature is also vague regarding the terminology the authors use. Terms like “advanced maternal age”, “older women”, “later-life mothering”, and “older parenthood” are used in these articles debating the ethical grounds of reproductive assistance in older women (Appel, 2009; Caplan & Patrizio, 2010; De Clercq *et al*., 2023). What is, however, clear from this literature is that only the woman's age is considered. The only logical explanation is that these authors are concerned with the health risks pregnancy in older women poses to both the mother and the baby. Very little is written about men becoming fathers later in life despite scientific data that the spermatozoa of older men also involve health risks to the future child (Malaspina *et al.*, 2001; Reichenberg *et al*., 2006; Shulevitz, 2012).

The ethical and social issues relating to becoming a parent later in life involve more than just the ethical issues around reproductive assistance. Journalists like Downey (2000), Gillis (2012), Hendricks (2016), Kincaid (2016), and Shulevitz (2012) have written about other pertinent ethical and social issues related to becoming a parent later in life. When considering all the different social and ethical issues of becoming a parent later in life, and not only the ethical issues of reproductive assistance, it seems illogical to use the maternal age definitions the medical field and fertility specialists rely on. These other ethical and social issues of becoming a parent later in life compel one also to consider the father's age. Despite the attempts of authors like Arthur Caplan (2005, n.p) to include the age of the father in his formula to work out when people are considered too old to

become parents, it seems that age is probably the least considered criterion in the parent selection process of fertility clinics (Appel, 2009, n.p.; Gillis, 2012, n.p.).

People who want children after their so-called “golden reproductive years” often find themselves having to explain why they would like a child at this point in their lives. In his article focusing on the ethics of reproductive assistance, Caplan (2005, n.p.) judges older mothers as selfish and writes that they are not concerned with the well-being of their future children. Gillis (2012, n.p.) echoes this judgment as she writes about her experience of becoming a parent later in life. The judgement of people becoming parents later in life is rooted in the medical field, where older women are judged because they put their health and their babies at risk during pregnancy and birth (Caplan, 2005, n.p.; Gillis, 2012, n.p.). This medical issue has been extrapolated to the ethical debates around women seeking reproductive assistance later in life. This, together with other arguments like the natural argument, the do-no-harm argument, and the life expectancy argument[3], is used to judge people, specifically women, becoming parents later in life (Appel, 2009; Caplan & Patrizio, 2010; Gillis, 2012; Saletan, 2009). Caplan and Patrizio (2010, p 284) and De Clercq et al. (2023, p 594) write that older parents are worse parents because they have less energy to care for a child and often have ailments that prevent them from being good parents. As these older parents grow even older, they will become an emotional, physical, and potentially financial burden on the child when the child is not yet ready to deal with it. Older parents are also more likely to die before the child is prepared to cope without parental support. Children from older parents are often single children

[3] I discuss these arguments in detail in Chapter 3 section 3.1 THE ETHICAL GROUNDS ON WHICH PEOPLE BECOMING PARENTS LATER IN LIFE ARE JUDGED (p 21)

and are perceived as being alone and left without a support structure (Gillis, 2012, n.p.; Shulevitz, 2012, n.p.). Even though people becoming parents later in life are financially more stable than younger parents, this situation might change as they retire, and so the financial burden of a child on a family dependent on a pension is a reality to consider (Shulevitz, 2012, n.p.).

However, the authors Downey (2000, n.p.) and Kincaid (2016, n.p.) make many arguments that support the choice of people who become parents later in their lives. People, especially women, who choose to become parents later in their lives are in a better financial position to have a baby. They can offer a child a better education and more opportunities. They often have established careers and can negotiate for more benefits regarding maternity leave and better work hours (Kincaid, 2016, n.p.). Both older men and women are emotionally more available for their children. Their children do not have to compete with their career ambitions for their attention (Downey, 2000, n.p.). Older women bond better with their babies because, having achieved what they wanted in their careers, they look forward to this next step in their lives (Kincaid, 2016, n.p.).

In her article, Gillis (2012, n.p.) explains that the ethical issues related to becoming a parent later in life are not regarded the same for men and women. There is a discriminatory judgement that stems from the traditional assumptions of parental gender roles. It is assumed that the mother should be the caregiver and, therefore, needs to be younger with more energy and be part of the child's life for longer (Gillis, 2012, n.p.). This assumption flows naturally from the physiological ability of women to only procreate until

a certain age. So, because nature intended for women to only have children up to a certain age, she ethically ought not to become a mother after that (De Clercq *et al.*, 2023, p 597). The father is assumed to be the provider of the family, and even after his death, his only function is to ensure that the child is financially taken care of. Even though the duties of fatherhood nowadays extend far beyond that of the provider, a man's physiological ability to procreate until he dies is seldom ethically questioned (Appel, 2009, n.p.; Gillis, 2012, n.p.). The result of this train of reasoning is the arbitrary and unofficial age cut-offs that reproductive assistance facilities use to discriminate between the couples to whom they provide fertility assistance (Caplan & Patrizio, 2010, p 284).

The impact on society of people becoming parents later in life is another issue that should be considered. People becoming parents later in life have smaller families, resulting in marginal or negative population growth (Kincaid, 2016, n.p.). Fewer people on this earth are good when resources like food, water, land and energy are concerned. However when population growth dwindles there is not young people to take over so the result is an older workforce who cannot retire and with no one to look after this older generation (Shulevitz, 2012, n.p.).

CHAPTER 3: DESCRIPTION AND DISCUSSION OF ETHICAL AND SOCIAL ISSUES RELATED TO BECOMING A PARENT LATER IN LIFE

The ethical and social issues related to becoming a parent later in life extend beyond the ethical issues around reproductive assistance. How a person becomes a parent is only the first aspect of a whole host of ethical and social issues that a person will have to consider when becoming a parent later in life. This chapter will start with a discussion on the ethical grounds on which people becoming parents later in life are judged in section 3.1 (p 21), and I will go on to discuss the fairness of differing degrees of judgement of the older mother vs the older father in section 3.2 (p 30). Then, I will discuss the pertinent ethical issues a person will have to face regarding reproductive assistance in section 3.3 (p 35). The focus of this report is, however, not only on the ethical issues of reproductive assistance and the process of how one becomes a parent later in life, but, more importantly, in this report, I also focus on the other less obvious ethical and social issues later in life parenthood poses. I will discuss the ethical and social issues to consider during the different stages of life of the child and parent in section 3.4 (p 47), which includes the financial implications (p 49), the psychological implications (p 52) and the impact on the family structure (p 58). I will discuss the impact on society in section 3.5 (p 62). People contemplating this life-changing decision beyond their golden reproductive years need a comprehensive overview of the ethical and social issues related to becoming a parent later in life to guide their decision-making process.

3.1 THE ETHICAL GROUNDS ON WHICH PEOPLE BECOMING PARENTS LATER IN LIFE ARE JUDGED

In section 1.1 (p 4), at the beginning of this report, I discussed the terminology used when referring to people, specifically women, past their golden reproductive years. The term “advanced maternal age”, used in the medical field to categorise women above the age of thirty-five because their pregnancies pose health risks, does not translate to the age cut-offs fertility clinics use. De Clercq et al. (2023, p 594) reiterate my opinion that the medical terminology used to debate the ethics of later in life parenthood is inappropriate. Even though most of the judgement of women becoming parents late in life is entrenched in the health risks associated with pregnancy in a woman older than thirty-five years, the health risks of pregnancy are a medical issue that, with current medical advances, are not necessarily relevant anymore. It is a weak ethical argument at best (De Clercq *et al.*, 2023, p 594). With progress in the medical field, it becomes problematic to use this argument as a foundation to judge women becoming parents later in life.

It is not only women but also men who are having children later in their lives, and yet there is no age limit, medical or otherwise, to define who an older father is. Even though a man can biologically father a child until he dies, an older man’s sexual function and sperm parameters decline with age (Harris, Fronczak, Roth & Meacham, 2011, p e185). As a man ages, his semen quality drops, and there is an increase in DNA fragmentation in his sperm (Harris *et al.*, 2011, p e185). Embryos conceived from this sub-standard sperm have a high incidence of chromosomal abnormalities and birth defects that pose a serious health risk to the baby (Harris *et al.*, 2011, p e188). Yet, older men becoming parents later

in life are praised and admired for their virility (Appel, 2009, n.p.). Despite advances in gender equality, there is still gender bias where the risk of being an older parent, the roles of the respective parents, and their ages are concerned (Downey, 2000, n.p.). It is evident that by accepting this double standard, society and social critics confuse two separate issues when judging older mothers. There are medical issues around the health risks for the mother and baby, and there are ethical and social issues of becoming a parent later in life. However, I agree with Appel (2009, n.p.) that, if we are discussing the latter, it is sexist only to include older women in this debate. I will write more about the fairness of the differing degrees of judgement of the older mother vs the older father in section 3.2 (p 30), but as I concluded in section 1.1 (p 4) of this report, it is probably more appropriate to use the term ”later in life” as it can apply to both men and women who become parents after their golden reproductive years[4].

Despite the various terminologies that exist and regardless of their exact age, females over the age of thirty-five find themselves in a situation where they have to give a reason for their reproductive choice (Gillis, 2012, n.p.) With medical terminology as the backbone of ethical discussions about women becoming parents later in life, it so happens that a woman who falls pregnant unassisted in her late thirties is bearing the same brunt of judgment about her reproductive choice as a woman seeking reproductive assistance in her late forties. De Clercq et al. (2023, p 593) write that the notion that a woman has a “biological clock” surfaced in the late 1970s because women started to be part of the workforce and that, before then, it was customary for women to reproduce until they

[4] It is important to note that a woman is considered “older” or past her “golden reproductive years” in the medical field after the age of thirty-five when her fertility rapidly declines. There is no exact age-cut off for men.

reached menopause. They use the term “older mother” in their article and agree there is no specific age at which a woman is considered too old to become a parent (De Clercq *et al.*, 2023, p 593). Instead, women are judged as “older” when their beauty and health decline (De Clercq *et al.*, 2023, p 593). So even though beauty is in the eye of the beholder, women becoming parents later in life may feel pressured to look young and go to lengths to hide signs of ageing to avoid bearing the judgement of society (De Clercq *et al.*, 2023, p 593).

Why are people becoming parents later in life so harshly judged? Despite the benefits of a child being born into a family with financial stability and emotional maturity, which I will address in section 3.4 (p 47), people, and more often women, becoming parents later in life find themselves in a position where they have to defend their reproductive choice (Gillis, 2012, n.p.). Saletan (2009, n.p.) writes about the ethical grounds on which society judges older women in his article concerning reproductive assistance in older women. He discusses three arguments to justify the age cut-offs fertility clinics use to turn away older women seeking reproductive assistance, and I will discuss these arguments in the context of reproductive assistance in section 3.3 (p 35). However, I think these arguments are the ethical grounds on which any person becoming a parent later in life is judged.

The first argument Saletan (2009, n.p.) describes relies on the notion of natural law and is more specifically intended to judge women becoming parents later in life. The thinking is that there is a biological reason why a woman reaches menopause around the age of fifty, and people should not defy this law of nature (Gillis, 2012, n.p.). However, because

of better nutrition, education, health care and technological advancement, people are biologically behaving differently than a hundred, or even ten, years ago (Royal Geographic Society with IBG, no date, n.p.). People are living longer and are less frail at a certain age (Gillis, 2012, n.p). They are shifting the laws of biology to a point where middle age today is not what it was before. The idea that we increase longevity but not the age at which a woman can experience reproductive freedom is uncomfortable. The second argument Saletan (2009, n.p.) describes is the life expectancy argument. This argument also mainly refers to women. Society seems to agree that a mother should be alive to care for her child until they reach the age of eighteen (Saletan, 2009, n.p.). This argument ties in with the natural law argument. As I discussed above, people today live longer than before (Worldometers, 2024, n.p.). This argument also does not consider the father's age and does not allow for the notion that the father might be around to care for the child (Appel, 2009, n.p.). I elaborate more on why only the mother's life expectancy is an issue of debate in the next section 3.2 (p 30) dealing with the fairness of the differing degrees of judgment of the older mother vs the older father. The last argument Saletan (2009, n.p.) describes as the ethical grounds on which people becoming parents later in life are judged is the non-maleficence or the do-no-harm argument. This argument is intertwined with the life expectancy argument because an older parent can cause potential harm to their child by not being around until they reach the age of eighteen. However, the do-no-harm argument extends beyond the issue of life expectancy. The reproductive assistance process, needed after a certain age, can impact the mental health of parents and cause financial stress (Ali, 2020, n.p.). If the chances of success are small, the harm that it causes outweighs the potential benefits of becoming a parent

later in life (Gillis, 2012, n.p.). However, each person's emotional and financial situation is different, and to judge people becoming parents later in life based on the do-no-harm argument is a gross generalisation.

These arguments are rooted in one fundamental grounding for negative judgment: selfishness. Gillis (2012, n.p.) recalls her own experience with later in life parenthood and writes that people becoming parents later in life are judged as selfish. Considering the life expectancy argument and the do-no-harm argument, the judgement of selfishness comes from the argument that the mother might not be around until the child reaches the age of eighteen and that it is unfair to the child and harmful to the child to have this possibility as part of their future. The mother has a duty not to harm her child (Gillis, 2012, n.p.). Statistically, it might be true that the chance is that a twenty-year-old mother will be there to care for her child longer than the forty-year-old mother, but this reasoning takes one down a rabbit hole involving a debate over genetics, healthy ageing and likelihood. Regardless of age, all the reasons why people, young and older, have children can be considered fundamentally selfish and might involve harm to the future child. Garget (2020, n.p.) writes that before the era of contraception, even young couples did not necessarily have children because they wanted a child but rather because they had to fulfil a selfish need, sexually, emotionally or otherwise, that then did not include the choice to think about the child's future. With the availability of contraception and the ability to practice family planning, people are still having children due to selfish reasons: they have a desire to have a child or because they need parenthood, meaning their partner or family expects them to have a child (Boivin, Buntin, Kalebic & Harrison, 2018, p 92). These motivations

to have a child do not necessarily consider the well-being of the future child but instead revert to the realisation of personal fulfilment. These motivations are all potentially unfair towards the child, and therefore, it is ageist to judge older people, and more specifically women, as selfish when they want to become a parent later in life. Most of the reasons why people have children later in life, like waiting for the right partner or waiting to have financial stability, stem from a planned and well-thought-through process, which shows that people becoming parents later in life are considering the future of their children and are not more selfish than younger parents.

During an interview with reporter Wendy Gillis (2012, n.p.), Vardit Ravitsky, a bioethicist, commented that it becomes problematic when we ask: who deserves to be a parent? In most societies, reproduction is considered a basic right based on Article 16 of the United Nations Universal Declaration of Human Rights and Article 12 of the European Convention for the Protection of Human Rights and Fundamental Freedoms, which states that a person has the right to found a family (*European Convention on Human Rights - Article 12*, 2018; United Nations Universal Declaration of Human Rights - Article 16, 1948). However, how we regard the basic right to reproduction is a matter of interpreting these statutes. Some, like Caplan and Patrizio (2010, p 285), think that the right to reproduce only entails a person being left alone to reproduce how and when they want, but it does not mean they have the right to reproductive assistance. Others, like the judge in the case of AB vs Minister of Social Development, think that reproductive assistance offers a person the freedom to extend basic reproductive rights (*AB vs Minister of Social Development (3) SA 570 (CC)*, 2017). Reproductive freedom is still the centre of women's

movements, and it is agreed that for women to be equal to men, they should be allowed to choose if and when they have children (McGuinness & Widdows, 2016, p 58; Rasmussen, 2016, p 47). Still, legislators and health professionals have been interfering with people's right to reproduce for a long time.

From the late 1970s to early 2016, China implemented a one-child policy to curb the rapidly growing population. They used measures like financial sanctions, forced abortion and forced sterilsation of women (Pletcher, 2024, n.p.). Today, abortion laws are still interfering with this right. Data from early 2024 shows that abortion is still strictly prohibited in twenty-two countries despite a woman needing an abortion to save her life or a pregnancy posing health risks to the mother (Focus2030, 2024, n.p.). Even in America, a developed country, some states still do not permit abortion (Focus2030, 2024, n.p.). People undergoing cancer treatment that can affect their fertility are advised to preserve their fertility by ovarian cryopreservation, ovarian transposition, sperm cryopreservation and cryopreservation of testicular tissue before treatment starts (Bewtra & Acharya, 2023, p 4-5). So, as these examples show, Caplan and Patrizio's (2010, p 285) reasoning that the right to reproduce only entails doing so with freedom of interference is not a sound argument.

It becomes problematic when society places conditions on a basic right. Suppose we want to enforce age limits from the do-no-harm argument or unfairness towards the child upon this right. In that case, we should also consider other restrictions like socioeconomic status, emotional maturity and stability and family support structure (Gillis, 2012, n.p.).

Considering the arguments, my logic dictates that because there is a gradual change in the ethical and social considerations of becoming a parent as people get older, we should consider the notion that there must instead be a gradual decline in the right to reproduce instead of a pivotal age cut-off point.

Becoming a parent later in life might also mean that an older person or couple is adopting a child later in life. The ethics around reproductive freedom cannot stand alone in this report and should be considered next to the ethics around parenthood. According to the LexisNexis glossary, a parent is someone who takes care of a child (LexisNexis Legal Glossary, no date, n.p.). This includes a biological parent and a legal guardian or caregiver (LexisNexis Legal Glossary, no date, n.p.). There are no international age limits placed on adoptive parents, and the decision is left to adoption agencies on what age the adoptive parent should be. According to the Children's Act of South Africa, a person older than eighteen is allowed to adopt, and there is no upper age limit for prospective parents who want to adopt a child (*Children's Act 38 of 2005*, 2005, p 75). The terminology used to refer to people becoming parents later in life is not used when referring to older adoptive parents, although they are still becoming parents later in their lives. While the ethical issues regarding the health risks of pregnancy and the ethical issues around reproductive assistance are not applicable when adopting a child, the ethical issues of raising a child as an older parent remain. I wonder if society chooses to ignore the ethical and social issues when it is not a biological child that is concerned because the adoptive child sometimes has no other alternative than to be adopted by an older person. Whatever the case, even though older adoptive parents might not be judged by society, they will

experience the same social and ethical issues relating to becoming a parent later in life, and so they will need to consider these issues and how they are going to deal with them before they adopt a child.

This section pointed out that people who become parents later in life are being judged by society, even though the arguments used as ethical grounds to judge people becoming parents later in life are not always sound. People considering later in life parenthood need to realise that they might bear the brunt of this judgement and decide how they will deal with it. The terminology referring to later in life parenthood strictly refers to women because there is an age at which a woman's fertility starts to decline as opposed to men who can father a child throughout their life. This section also alluded to how the degree to which an older woman is judged differs from the degree to which an older man is judged. In the next section, I will address the ethical issue of the fairness of differing degrees of judgement of the older mother vs the older father.

3.2 THE FAIRNESS OF DIFFERING DEGREES OF JUDGEMENT OF THE OLDER MOTHER VS THE OLDER FATHER

As I discussed in section 1.1 (p 4) at the beginning of this report, various terms exist to describe women becoming parents later in life. It also seems that these terminologies refer to women somewhere older than thirty-five when their fertility starts to decline rapidly. There is, however, no term to describe a man who becomes a parent later in life. Women have always been the focus where reproduction is concerned. McGuiness and Widdows (2016, p 61) explain that women's reproductive function has been controlled using chastity belts, chaperoning women, restricting their social engagements, and genital mutilation. When a child was born out of wedlock, women were blamed for the reproductive mishap (McGuinness & Widdows, 2016, p 61). At the same time, young men were encouraged to practice the art of lovemaking before they wed, making visits to brothels customary (McGuinness & Widdows, 2016, p 61). I alluded to the double standard of judgement when the older mother vs the older father is concerned in section 3.1 (p 21) as it is primarily women who are deemed selfish when they become parents later in life. Even though arguments like the life expectancy argument and the do-no-harm argument, used to judge women becoming parents later in life, can be applied to men, society still seems to focus on women when reproductive rights are concerned and place a higher standard and, therefore, a harsher judgement on women who choose to become parents later in life.

This double standard of judgement lies in the traditional roles society expects a mother and a father to play in a child's life. These expectations are rooted in the biological fact

that a father is only needed for conception, whereafter the mother is responsible for carrying the pregnancy, giving birth and then feeding and caring for the child. After conception, the child's survival solely depends on the mother (Dette-Hagenmeyer, Erzinger & Reichle, 2014, p 1). Society considers the mother as the child's primary caregiver who is expected to continue to play a nurturing role in the child's life, placing the father in a supportive role (Dette-Hagenmeyer, Erzinger & Reichle, 2014, p 1). The father's supportive role in a child's life varies in different cultures. Most cultures accept that, at the very least, a father should support his child financially. This notion forms the basis of legislation like the Maintenance Act 99 of 1998 in South Africa, which places a duty on the father to provide for the child until the child is self-sufficient (*Child Maintenance Act 99 of 1998*, 1998).

These traditional roles assigned to the mother and father in a child's life result in the double standard of judgement, where an older woman becoming a parent later in life is judged as being selfish, irresponsible and potentially causing harm to her child based on the life expectancy and do-no-harm arguments, because as a mother she needs to be around to care for her child until they reach adulthood. So, an older woman who becomes a parent later in life is judged because it is more likely that she will not be able to fulfil this role until the child becomes an independent adult (Caplan & Patrizio, 2010, p 283). On the other hand, an older father does not have to be alive to fulfil his expected role. As long as an older father makes provision for his child in his will, when he dies, he will not be judged for forsaking his child before they reach adulthood. He is seen as responsible if he takes care of the child financially, so the arguments used to judge older women do not

apply to older men. Another aspect contributing to this double standard of judgement of the older mother vs the older father based on the life expectancy and do-no-harm argument is that a woman is always assumed to be younger than her partner. Therefore, the child will be left orphaned once the older mother dies. In the past, it was more common for older men to have younger wives but not for older women to have younger husbands (Caplan & Patrizio, 2010, p 283). So, it is assumed that an older woman has an even older husband or, at best, a husband the same age (Shulevitz, 2012, n.p.). In a family structure where the woman is younger than the man, it is assumed that the woman will outlive the man, and the child will be cared for by his mother until they reach the age of eighteen. Based on this assumption, the older woman, even with a younger husband, is judged, discriminated against and excluded from reproductive freedom. Even though the child will have a parent, be it the father, to see them through to adulthood. So, the older woman becoming a parent later in life faces arbitrary and inconsistent age limits when seeking reproductive assistance because the age of the father is not taken into account (Appel, 2009, n.p.). Traditionally, it was not accepted that a father can fulfil the role of carer and nurturer in a child's life.

Today, in some parts of the world, the roles women and men play in families are very different. It is no longer assumed that the father is the breadwinner of the household and the mother is the homemaker (Launder, 2020, n.p.). This shift in the traditional roles assigned to the mother and father in the family started with the women's empowerment movement. By educating women and allowing them to become part of the workforce, they began contributing financially to the household, which took the pressure off men to

provide solely. This shared financial responsibility to provide for the family allowed men to choose a career path that included time available to spend with their children (Launder, 2020, n.p.). It became acceptable for women to be the breadwinners or sole providers of the family and for men to be stay-at-home fathers. The father's supportive role in the child's life has now expanded beyond that of a financial provider to care for the child, partaking in child-rearing decisions and making an emotional contribution to his child's life (Launder, 2020, n.p.). So, the life-expectancy argument and the do-no-harm argument also apply to men as it will be harmful to a child if their father is not around until they reach adulthood. With the change in the roles a mother and a father play in a child's life, it is, therefore, unfair to only expect a mother to be around to see her child through to adulthood, and it is sexist and unethical to consider the age of the woman becoming a parent later in life more important than that of a man who wants to become a parent later in life (Appel, 2009, n.p.; Caplan & Patrizio, 2012, p 283).

In an attempt to mitigate the discrimination against older women seeking reproductive assistance, Caplan (2005, n.p.) writes that anyone over sixty-five years should not be having a child and if it is a couple, their combined ages should not be more than 130. The numbers and age cutoffs he suggests have no scientific backup, however, the idea that fertility clinics should consider the ages of the older mother and the older father makes sense. When considering the do-no-harm argument, there is another reason why the father's age should also be considered. Older men can harm their children by causing severe health problems that are prevalent in children conceived with older sperm, as I will discuss in more detail in the next section 3.3 (p 35). It is not only fertility clinics that should

change the differing degree by which they are judging and discriminating against women, but society also needs to change. Currently society's ethics by which they judge people becoming parents later in life lag behind the change in the traditional roles men and women play in a family. If society is accepting of women in the workplace, stay-at-home dads, and older women marrying younger men, phenomena that were previously frowned upon, as mainstream, society's ethics should evolve to a point where they recognize that older men becoming parents later in life should also be included and judged by the life expectancy and do-no-harm arguments.

As it stands, there is still a differing degree of judgement where the older mother vs the older father is concerned. Even though the roles of the mother and father in the family are becoming more fluid, it is evident from this section that the degree of judgement of older mothers still differs from the degree to which older fathers are judged. People, especially women, who consider becoming parents later in life need to be aware that these judgements and double standards exist, and they need to consider how they will deal with them before they embark on becoming parents later in life. The increasing age at which people become parents also forces us to reexamine the ethical and social issues surrounding fertility treatments. So, in the next section, I will discuss the ethical issues relating to assisted reproduction later in life.

3.3 THE ETHICAL ISSUES RELATED TO ASSISTED REPRODUCTION LATER IN LIFE

Women who want to become parents later in life usually need reproductive assistance because, as discussed in section 1.1 (p 4) at the beginning of this report, a woman's fertility rapidly declines after the age of thirty-five. There are nutritional and hormonal supplements men can take and lifestyle adjustments they can make to improve their fertility, but ultimately, men can father children throughout their lives (New England Fertility Institute, no date, n.p.). These adjuncts to enhance male fertility do not compare with females undergoing reproductive assistance with regards to invasiveness, emotional distress and health risks of a pregnancy in older women, and therefore, these measures do not carry the same weight when ethical discussions around reproductive assistance are concerned. So, the focus of ethical discussions on reproductive assistance mainly applies to older women seeking it.

Even though reproductive assistance allows people more freedom to choose their reproductive path, this freedom is not absolute. Despite media coverage of celebrities having extreme-age pregnancies, people, and more specifically older women, should know that most fertility clinics impose age limits on reproductive assistance (Vitalab, no date, n.p.). Unfortunately, these age limitations in reproductive assistance stem from a jumble of ethical issues and health concerns that medical personnel grapple with, so it is difficult to understand the ethical grounds on which the age limits are based as I mentioned in section 1.1 (p 4). The various age limitations fertility clinics enforce mostly take the age of the woman undergoing reproductive assistance into account, and the age

of the father is often ignored. This makes one wonder if these age limitations are really based on ethics or if the health risks to the mother and baby are the concern.

In his post on the website *Fertility Abroad*, Wiecki (2020, n.p.) summarises the age limits imposed on reproductive assistance. In England, fertility clinics are guided by the National Institute for Clinical Excellence Guidelines that suggest women should not receive reproductive assistance after the age of forty-two years, but there are no legal age limitations (Wiecki, 2020, n.p.). Greece enforces an age limit on reproductive assistance after age fifty-four. In Turkey, Russia, Poland, Slovakia, Cyprus and Ukraine, there are no guidelines and fertility clinics in these countries impose age limits at their discretion (Wiecki, 2020, n.p.). There are no official age limits in America, and each fertility clinic has its own age limit policy. The Reproductive Science Centre of the San Francisco Bay area (no date, n.p.) states on their website that its age cut-offs are per the American Society for Reproductive Medicine Guidelines. On their website, they state: *" Accepts new patients before their 50th birthday; offers IVF for patients that want to use their own eggs up to their 45th birthday; offers IVF for patients that want to use fresh donor eggs up to their 51st birthday; for patients age 49 and over who have already frozen embryos in storage, embryo transfer is recommended by age 51 but available up to their 52nd birthday"* (The Reproductive Science Centre of the San Francisco Bay Area, no date, n.p.). It seems ridiculous that a woman wakes up on the morning of her fifty-second birthday with her reproductive freedom taken away overnight. She could still have become a mother if she had her in vitro fertilisation procedure twenty-four hours earlier. Vitalab (no date, n.p.), a prominent fertility clinic in South Africa, does not explicitly state any age

cut-offs on its website. Instead, their website states statistics about the success rates of reproductive assistance at specific ages (Vitalab, no date, n.p.)

I discussed the arguments Saletan (2009, n.p.) described in his article about older women seeking reproductive assistance in section 3.1 (p 21) because these arguments are generally the basis on which older men and women becoming parents later in life are being judged. However, in his article, Saletan (2009, n.p.) describes these arguments in the specific context of older women seeking reproductive assistance and the justification of the age cut-offs fertility clinics use to turn women away. When the argument of natural law, the life expectancy argument, and the do-no-harm argument are used to justify the arbitrary and non-standardised age cut-offs fertility clinics impose on women seeking reproductive assistance, it leads to a different set of ethical issues.

Saletan (2009, n.p.) writes that some fertility clinics use the natural law argument to turn women over the age of fifty years away because that is the average age a woman reaches menopause. The reasoning is that if nature did not intend for women to have children after the age of fifty, she should not be given reproductive assistance after the age of fifty. However, I agree with Saletan (2009, n.p.) that using the natural law argument in reproductive assistance is fundamentally contradictory because offering any form of reproductive assistance to any age woman who has fertility issues is unnatural. The natural law argument dictates that if nature intended a woman to have a child, she would not need reproductive assistance, so even young women should then not receive

reproductive assistance. One cannot choose how one applies the law of nature in reasoning. Other medical interventions and advances like antibiotics and eyeglasses should also be considered unnatural if natural law is used consistently and non-discriminately. Yet, older women who want to exercise reproductive freedom are turned away by fertility clinics, labelled as too old to have a child, based on the belief that they wish to defy the law of nature (Appel, 2009, n.p.).

The life expectancy argument is the next argument used by fertility clinics to justify their age limits on reproductive assistance. Even though it might have been a valid argument in the past, the use of this argument today is becoming problematic because, as I discussed in section 3.1 (p 21), people today live longer. As society's life expectancy increases, so should the age limits imposed by fertility clinics shift. The life expectancy argument is rooted in the belief that a mother should be alive to care for her child at least until they reach the age of eighteen, and I discussed the gender bias issue with this expectation in section 3.2 (p 30). However, the problem with using the life expectancy argument to justify the arbitrary age cut-offs of fertility clinics is that the statistics used in reproductive assistance are grossly generalised. The latest United Nations Population Division states that the life expectancy of women in Hong Kong is 88.66 years; in Switzerland, it is 86.05 years; in England, it is 86.3 years; in South Africa, it is 69.7 years; and in Nigeria, it is 54.2 years (Worldometers, 2024, n.p.). If fertility clinics want to justify their age limits using the life expectancy argument, they will have to adjust their limits for the country they are in, and if a woman has travelled from abroad to seek reproductive assistance, they will have to adjust their age cut-off for the life expectancy statistics for

the country she lives in. The variation in life expectancy between countries depends on factors like income, access to water and sanitation, the standard of healthcare facilities, and the general standard of living (Royal Geographic Society with IBG, no date, n.p.). In countries like South Africa, there is a skewed distribution of these resources, which results in some people having a very high quality of life while others do not, so applying the average life expectancy of the country for all women seeking reproductive assistance is troublesome. In their justification of the life expectancy argument, fertility clinics also do not consider the father's life expectancy and that he might be a stay-at-home father who primarily cares for the child. They only focus on the mother as the primary caregiver. According to Appel's research, a fertility clinic will decline a sixty-year-old female with a twenty-five-year-old husband, whereas a forty-nine-year-old female with an eighty-five-year-old husband will receive reproductive assistance (Appel, 2009, n.p.). Even though the former couple's child is more likely to have a parent, albeit the father, who will provide financially and emotionally for much longer.

The last argument Saletan (2009, n.p.) describes to justify the age limitation on reproductive assistance is grounded in the principle of non-maleficence. The chances of success of reproductive assistance using a woman's own egg are very slim after the age of forty-five years. Therefore, some fertility specialists set an age limit of forty-five years for women seeking reproductive assistance (Vitalab, no date, n.p.). Fertility specialists realise that undergoing reproductive assistance is an emotionally taxing and expensive investment. While they know that statistically, the yield of success is meagre, they feel they will harm their patient by offering her treatment (Gillis, 2012, n.p.). However, with

technology allowing women to use donor eggs or frozen eggs, embryos, or ovarian tissue, the success rate of reproductive assistance in women above the age of forty-five is increasing, so the do-no-harm argument some fertility specialists use is becoming increasingly weak (Saletan, 2009, n.p.). It is unclear why certain fertility clinics impose an age limit of fifty years upon women using these technologies, but one can assume it comes from the argument of the law of nature or it derives from the life-expectancy argument and not the do-no-harm argument. Even though the information around surrogacy and age limits is scant, it is probably safe to assume that if a surrogate is used with the woman's own egg, the age cut-off for reproductive assistance will be the same as if she was carrying the child herself, because to produce an egg for fertilisation she would have had the same reproductive assistance as if she was carrying the pregnancy herself. If a donor egg is implanted into a surrogate, the age cut-off for using donor eggs probably will be used.

If one agrees that there is ethical merit to the age limits imposed by fertility clinics based on some combination of the natural law argument, the life expectancy argument, and the do-no-harm argument, the question that arises is: if we want to restrict women of a certain age to obtain reproductive assistance, should we then give contraceptives to all women after a certain age in the eventuality that there are outliers who can fall pregnant on their own beyond what is considered the golden reproductive years? After all, statistics deal with averages. There will always be women whose fertility extends beyond these statistics upon which fertility clinics base their arguments. The notion that fertility specialists should consider a woman's physiological age and the health of her reproductive system rather

than her chronological age, as Wiecki (2020, n.p.) writes in his post, makes more sense. However, the debate around the ethical soundness of the age limits enforced by some fertility clinics remains unresolved, and I recommend how to deal with this in Chapter 4 (p 66). For the rest of this section, let us accept, as it currently stands, that fertility clinics do impose age limits on women seeking reproductive assistance anywhere between forty-five years and fifty years old.

Fertility clinics do not take men's age into account because, even though a male's fertility declines after the age of forty, a man never stops producing sperm altogether (Wiecki, 2020, n.p.). During reproductive assistance, only one spermatozoon is needed to successfully fertilise an egg, so despite low sperm count and sperm dysmotility that develops with age, a man remains fertile until he dies. However, the belief that any sperm is good sperm is not true. It has been shown that men pass on more spontaneously occurring genetic mutations, not inherited ones, as they age (Kong *et al.*, 2012, p 6). Physical abnormalities like dwarfism, Marfan syndrome, cleft palate, developmental disabilities like autism, attention deficit disorders, Asperger syndrome and a vulnerability to psychiatric illnesses like schizophrenia are all linked to advanced paternal age (Malaspina *et al*., 2001, p 361; Reichenberg *et al*., 2006, p 1026; Shulevitz, 2012, n.p.). Malaspina *et al.* (2001, p 361) postulate these spontaneous genetic mutations happen because a man's spermatozoa continues to divide throughout his life, and as a man ages, this cell division becomes less streamlined. Some of these abnormalities can be detected during prenatal screening. Still, most of them, like developmental disabilities, are only diagnosed when a child experiences a developmental delay (Shulevitz, 2012, n.p.).

Therefore, there is no choice offered about bringing a child with these abnormalities into the world. One could claim that an older father can potentially harm his future child, and yet there is no paternal age limit set by fertility clinics. I am unsure why fertility specialists still often ignore the problems older sperm can create; maybe it is because some of these disabilities are considered “soft” or “not so serious” and “still compatible with life”, but these abnormalities can be severely debilitating. They can lead to a diminished quality of life. Just because there is no method to screen for these disabilities prenatally does not mean we should ignore the fact that they pose a risk to the future child. So, when an older woman is turned away because she might harm her future child, the justification is discriminatory. If we want to impose age restrictions on older women seeking reproductive assistance, we should also consider giving contraception to men above a certain age.

Epigenetics is a field of genetics that researches the processes that alter how genes function without changing the genetic sequence (Weinhold, 2006, p A160). These extra-genetic functions of genes or epigenetic mechanisms are essential in our physiology and, for example, play a role in early brain development, body size and a person’s vulnerability to cancer. When these mechanisms change how they work, it can lead to adverse behavioural and health effects (Weinhold, 2006, p A160). Shulevitz (2012, n.p.) writes in her article that “we are producing a generation that is phenotypically and biochemically different from previous generations”. Causes for epigenetic mutations include air pollutants, tobacco, heavy metals, hormones, essential nutrients, radioactivity, viruses, and bacteria (Weinhold, 2006, p A160). Older parents have been exposed to these causes for longer, and because men produce new spermatozoa constantly as opposed

to women who have all their eggs formed from birth, it is older fathers that add the risk of having a child with an epigenetic mutation (Shulevitz, 2012).

Studies suggest that fertility treatment itself can also cause harm to the future child (Magee-Women's Research Institute & Foundation, 2019, n.p.). During reproductive assistance, sperm, eggs and embryos are exposed to abnormal amounts of hormones and other chemicals, and they are handled and stored, all of which can cause epimutations (Magee-Women's Research Institute & Foundation, 2019, n.p.). Unfortunately, even though scientists know that these epimutations are directly linked to reproductive assistance, there are still very few regulations regarding the methods used during reproductive assistance (Shulevitz, 2012, n.p.). The one method that stands out above the rest is intracytoplasmic sperm injection, as children created through this technique have an increased number of birth defects if compared to children conceived spontaneously (Davies *et al.*, 2012, p 1809). Intracytoplasmic sperm injection means that a single spermatozoon is injected directly into the egg, bypassing the step of fertilisation where the spermatozoa need to burrow through the egg's outer layer before successful fertilisation of the egg (Davies *et al.*, 2012, p 1809). Scientists are still unsure whether the technique itself results in the defects caused by the intracytoplasmic sperm injection or if male fertility played a role as the spermatozoon that would never successfully penetrate the outer layer of the egg is now forced to fertilise an egg (Davies *et al.*, 2012, p 1809). It is evident that not only do we need more research on epigenetic mutations, but the data should also be made available to the public and fertility specialists need to communicate

these risks openly to their patients. This might result in a shift away from the older mother and acknowledge that the older father must also be part of the screening process.

Significant advances have been made in genetic screening. Even if a person does not suffer from a genetic disorder, they can be carriers of the disease because they have a recessive gene mutation (American College of Obstetricians and Gynecologists, 2022, n.p.). Prospective parents are now able to screen themselves for over five hundred inherited diseases, including sickle cell disease, Tay-Sachs disease and cystic fibrosis, that they can potentially pass on to their unborn child (Mannarino, 2023, n.p.). This allows them to make an informed decision about the calculated risk that they might have a child with a genetic disorder. Genetic testing is not only available to perform prenatally on prospective parents, but different panels of genetic tests can be performed to detect genetic abnormalities like Down Syndrome, Patau Syndrome and Edwards Syndrome throughout the pregnancy (American College of Obstetricians and Gynecologists, November 2023, n.p.). Most of these screens target diseases that increase in prevalence as women age (Shulevitz, 2012, n.p.). Preimplantation genetic testing is offered if an embryo, created through reproductive assistance technologies, is implanted (Lilienthal & Cahr, 2020, p 3). Genetic screening and testing allow couples to make the decision not to conceive, not to implant an embryo or to terminate a pregnancy. It is important to note that, unfortunately, genetic screening has not yet developed to a point where one can screen for the problems or diseases related to older sperm and epimutations (Shulevitz, 2012, n.p.).

The ethical issues around the decision not to bring a child into this world with a genetic disorder is a separate discussion not within the scope of this report. I will instead focus on the non-medical genetic information, like the sex of the embryo, that becomes available from these tests and screens. Countries like America, Mexico, Italy and Thailand allow parents to select the sex of the implanted embryo, while most countries do not (Soni, 2019, p 3-4). South Africa has a ban on non-medical sex selection, but nothing prohibits a couple from travelling to one of the countries mentioned to get reproductive assistance and to select the sex of their future child (*National Health Act 1 of 2003*, p 30). Bowman-Smart *et al.* (2023, p1) and Savulescu (2001, p 414) write about a future where it might be possible for genetic tests to detect other non-medical traits like intelligence. Given the careful decision-making process and planning older parents go through when they choose to reproduce, together with the extensive genetic testing for medical reasons more prevalent in older age, it might become tempting to want to select a child that will complete the perfect picture they want their family to look like. Given their current financial, emotional and social circumstances, they might wish to have a child who can seize the opportunities they can offer. This notion, albeit futuristic at present, is starting to become an ethical issue as medical technology advances and should be something that people considering becoming parents later in life need to take note of.

The ethics around reproductive assistance and age are complex and far from resolved because fertility clinics are often not transparent about the role the older father plays. It is, however, evident that the older father plays just as big a part in the potential harm to the future child, and I will make a recommendation in Chapter 4 (p 66) on how fathers

should be included in the screening process. However, with the increasing age at which people become parents, it is essential to realise that each life stage poses a unique set of issues that should be considered before embarking on parenthood in that specific life stage (Gillis, 2012, n.p.). It is imperative to start discussing the ethical and social implications that, later in life, parenthood poses to society, and I will discuss them in the next section.

3.4. THE ETHICAL AND SOCIAL ISSUES TO CONSIDER DURING THE DIFFERENT STAGES OF LIFE OF THE CHILD AND THE PARENT

Putting aside the ethical issues regarding society's judgment on people becoming parents later in life, that I discussed in section 3.1 (p 21) and section 3.2 (p 30), as well as the arbitrary and unethical age limits used by fertility clinics and the potential genetic issues associated with reproductive assistance I discussed in section 3.3 (p 35) people becoming parents later in life need to consider what their future is going to look like with a child. These ethical and social implications associated with having a child in later life stages should be considered by any parent, including adoptive parents.

People becoming parents later in life are expected to think of the future of their unborn child, more so than young parents, and are often judged based on the life expectancy argument and the do-no-harm argument, as I discussed in section 3.1 (p 21). There is a general belief, as I mentioned in section 3.2 (p 30) and will elaborate on in this section, that older people are worse parents, and that the child would have been better off if they had the child at an earlier stage in their lives. However, people who become parents later in life are excited to have a child. After all, they planned for this child and, most of the time, went to great lengths to have this child. I agree with Appel (2009, n.p.) that it becomes problematic to argue that a wanted child created through a great deal of effort and sometimes expensive treatment is worse off than a child born because starting a family was the logical next step for nonchalant parents. Hendricks (2016, n.p) uses the

non-identity problem[5], popularized by Parfit, Woodward and Kavka in the 1980s, in his article about a child's right to have grandparents to make the point that one cannot argue that becoming a parent later in life is doing more harm to a child than becoming a parent at an earlier life stage, because it would not be the same child. Hendricks (2016, n.p.) makes the argument that because of the nonidentity problem, any discussions about the harm a child born to older parents might suffer are inconsequential. The nonidentity problem reasons that it is not a single child that is compared to itself at different times of existence, but one is comparing two different children (Roberts, 2022, n.p.). So, the quality of life and the different levels of harm to these hypothetical children born during the different life stages of their parents cannot be compared. I disagree with Hendricks because even though one cannot foresee the future, there are certain realities, like losing a parent at a younger age, that can potentially cause harm to the child. Frances Kissling, an ethics professor, said in an interview that the decision to have a child consists of two considerations: the child's future should be without foreseen suffering, and more importantly, the person who considers becoming a parent must be prepared for the compromises and sacrifices parenthood brings (Eustice, 2020, n.p.).

People becoming parents later in life need to consider what their life will look like and if raising a child fits that vision. They should attempt to foresee what their life might look like with a child during the different stages of life, and based on this prediction, they can decide whether to have a child in this life stage. As I discussed in section 3.1 (p 21), people

[5] The non-identity problem arises when as action that affects who comes into existence is regarded as ethically questionable, even though the person who exists in that state is not worse off than they would have been if they did not exist at all (Hendricks, 2016, n.p.).

sometimes choose to become parents later in life because they wait for the ideal circumstances to start a family. These ideal circumstances include financial security to afford a child opportunities, emotional maturity and social support. I agree with Hendricks, who explains that Savulescu's principle of procreative beneficence[6] can be applied more widely than just embryo selection (Hendricks, 2016, n.p.; Savulescu, 2001, p 414). Of course, a parent wants their child to live the best life possible, and that is one of the most important motivations behind becoming a parent later in life. However, a person contemplating later in life parenthood should realise that even though their current situation might be ideal for raising a child, their financial, emotional and social welfare will change with time. Having a child later in life implies that a person will be doing in their fifties what other parents did in their twenties or thirties. This reality needs to be incorporated into the future planning of people becoming parents later in life, and both parents and children will have different needs during the various stages of life. In the subsections below, I will discuss the financial implications in section 3.4.1 (p 49), the psychological implications in section 3.4.2 (p 52) and the implications on the family structure in section 3.4.3 (p 58) that people becoming parents later in life should consider.

3.4.1 FINANCIAL IMPLICATIONS OF BECOMING A PARENT LATER IN LIFE

Older couples are generally in a better financial situation than young couples because they have already worked themselves up the career ladder and are occupying positions with better salaries. Older men are not the only ones who find themselves in

[6] The Principle of Procreative Beneficence, proposed by Julian Savulescu, suggests that parents have a moral obligation to choose the child, from all possible children they could have, who is most likely to have the best life (Savulesco, 2001, p414).

a better financial position; older women also have established careers and contribute to the household income (Kincaid, 2016, n.p.). A financially stable household can offer children a better education and more opportunities (Kincaid, 2016, n.p.). However, financial stability is relative and does not necessarily mean people have money to support their current lifestyle, provide for a child, and have money left over to save for retirement. Even though some people's financial situation might be affluent enough, like the celebrities reported in the media who have children later in life, to afford it all, less wealthy people, albeit in a current stable financial position, might not. Without proper planning, these people risk spending all their money on their children, giving them an education and other opportunities, and not saving for retirement. They might reason that the child is their long-term investment: if they use their money to give their child opportunities instead of saving for retirement, the child will be able to provide for them in future. This train of reasoning is problematic because an older parent might need to retire before the child is financially independent or able to support their parents if required. Some people might have to retire earlier than planned due to technological advancements that leave their expertise obsolete or because of ill health (Shulevitz, 2012, n.p.). Ill health might result in the need for unplanned health care or caring services. A person who becomes a parent later in life might have to support themselves, including paying for costly and sometimes unforeseen expenses associated with getting older while still having a financially dependent child on their pension savings (Shulevitz, 2012, n.p.). To expect a child to care for their parents is an unfair burden to place on them, and a child might perceive the opportunities their

parents' current financial status affords them as conditional, which might result in a child resenting their parents in the future.

Children nowadays need primary education, tertiary education, internships, and experience before they can find a job that allows them to be financially independent (Shulevitz, 2012, n.p.). So many children tend to depend on their parents' financial support until their late twenties (Shulevitz, 2012, n.p.). The increased risk of having a child with developmental disabilities, as discussed in section 3.3 (p 35), adds more financial strain to the people who become parents later in life. A child with developmental disabilities might never be able to hold a job that renders them financially independent, or worse, the child might need extra care and other costly life-long support (Shulevitz, 2012, n.p.).

From these points, it is clear that there are financial issues to consider when becoming a parent later in life and to avoid judgment from the do-no-harm argument, it is imperative to do financial planning for the future. Part of this planning is that a person becoming a parent later in life should plan for the possible scenario that they might die before their child is financially independent, so they should have a will. They should also consider setting up a trust to make provisions to support a child until he is financially independent. If a child has a developmental disability, even more provisions must be made in their financial planning because the child might never be financially independent and might need special care for the rest of their life (Shulevitz, 2012,

n.p.). If the do-no-harm argument is applied to the financial implications of becoming a parent later in life, it is clear that there is the risk of definite harm to the child and the parents if proper financial planning does not occur. Financial planning for the future does not only include funds available for the child if the parents die but also money for the older parents to look after themselves because their child might not want to or be able to help.

3.4.2. PSYCHOLOGICAL IMPLICATIONS OF BECOMING A PARENT LATER IN LIFE

The psychological implications of becoming a parent later in life are complex, and as I discussed in section 3.1 (p 21), people becoming parents later in life are judged as being selfish based on the life expectancy argument and the do-no-harm argument (Gillis, 2012, n.p.; Saletan 2009, n.p.). There is a belief that people becoming parents later in life have lifestyles that do not accommodate children, they do not have the energy to care for a child, and they will become a burden on the child when they are old, or even worse, they will die before the child is independent all of which can potentially harm the child (Appel, 2009, n.p.; Kincaid, 2016, n.p.; Schulevitz, 2012, n.p.). Even though some of these reasons might contain valid ideas, they are not as clear-cut because there are also some advantages to being a child with older parents.

People who become parents later in life have lifestyles that allow them to spend more time with their children and, as a result, have a better emotional bond with them. Older women becoming parents later in life have often experienced career fulfilment,

travelled the world, and have a clear sense of self. A woman becoming a parent later in life is usually in a more senior position at work. Not only may she be in a better financial position to offer a child a good education and other opportunities, but it may also allow her to negotiate more extended maternity leave and the luxury of working flexible hours or from home (Kincaid, 2016, n.p.). Older women do not feel that they are sacrificing their freedom by having a child; they feel emotionally prepared for motherhood (De Clercq *et al*., 2023, p 597; Shulevitz, 2012, n.p.). This emotional maturity results in older mothers bonding better with their children and being able to give their children the emotional support they need to excel (Appel, 2009, n.p.).

Even though motherhood is generally a positive experience, some women find the adjustment to motherhood distressing up to the extreme of post-natal depression. The results of research on postnatal depression in women above the age of forty are conflicting. Some studies show that post-natal depression is more prevalent in older mothers, while other studies fail to show any difference (Muraca & Joseph, 2014, p 803). Researchers propose the following reasons for post-natal depression in older women: a lack of peer support and difficulty fitting into the social groups of younger mothers, difficult adjustment to motherhood, an emotionally taxing process of reproductive assistance and complicated pregnancies (Muraca & Joseph, 2014, p 809). However, the most significant risk factor identified in all these studies for developing post-natal depression is a previous diagnosis of depression (Silverman *et al.*, 2017, p 6). So, the studies that show that post-natal depression is more prevalent in women over forty might be overlooking an important reality and a positive attribute

of older women. Older women have already lived a life full of ups and downs and, probably at some point in the past, struggled with depression. So they can quickly identify and acknowledge the symptoms in the post-natal period. In contrast, younger women may not have had time to be diagnosed with depression before having a child. They might not realise that they are depressed, or they might not have the vocabulary to express their emotions. One must consider that these studies might only show that older mothers are emotionally more mature and in tune with their psychological well-being.

Downey (2000, n.p.) writes that men who become parents later in life generally have more time and patience for their children than their younger counterparts, and because they are financially secure with an established career, they can be more involved in their children's lives. They have time to spend with their children and are more engaged in childrearing activities than younger men still chasing after a senior career position. Even though a man's physical strength and energy dwindle, men become more nurturing as they age (Downey, 2000, n.p.). They are emotionally more mature, and so, where they lack the energy to play with their children, which younger fathers anyway do not have time for, they make up on an emotional and intellectual level by engaging with their children in activities that involve cognitive skills (Downey, 2000, n.p.).

Another aspect of the do-no-harm argument used to judge people becoming parents later in life is that there is a common perception, supported by Caplan and Patrizio

(2010, p 283), that an older woman lacks the energy to raise a child or is too frail to be a competent parent. Older mothers are perceived to be less able than their younger counterparts to deal with the stress of raising a child because of the cognitive and physical decline of ageing (De Clercq *et al.*, 2023, p 594). Even though older women might be slightly weaker or slower, they are also steadier and wiser (Saletan, 2009, n.p.) Older mothers might have fewer years with their children, but their wisdom and special bond give the child firm ground to be a successful adult. Saletan (2009, n.p.) acknowledges the power of being raised by an older woman when he writes that it is evident when looking at well-adapted, successful adults raised by their grandmothers. The points I have discussed show that people becoming parents later in life can accommodate a child in their lifestyle and can care for a child, maybe even better than young working parents.

The most important, probably the only, real psychological issue that people becoming parents later in life need to consider is they might become a burden on the child or, even worse, die before the child is an independent adult. This poses potential harm to the child because the child will experience emotional distress before they are emotionally mature enough to handle it. The support older parents might need from a child does not only include financial aid, as I discussed in subsection 3.4.1 (p 49) above, but older parents might also need emotional support. People who become parents later in life might need emotional support at a stage in the child's life where they cannot meet the emotional needs of their elderly parents, like when the child is still a student, when they are just starting a career or having small children. So, not

only is the older parent unable to provide further emotional support for the child starting in life, but the older parent also needs to be supported and cared for (Shulevitz, 2012, n.p.). This lack of support and an added responsibility to care for their parent can harm the adult child's well-being (Umberson & Chen, 1994, p 2). However, Kincaid (2016, n.p.) reports that some families find that the mutual support given and required by parents and children enriches their lives.

The more significant harm to the child will come when their parents die earlier in their child's life than younger parents would (Shulevitz, 2012, n.p.). It is pertinent to realise that historically, women died at a much younger age, mostly in childbirth, and so, even though a woman was much younger, she left her children well before they reached adulthood (Appel, 2009, n.p.). Only recently, society expected children to have their mothers around to care for them until adulthood (Appel, 2009, n.p.). I discussed the fairness of the differing degrees of judgment of the older mother vs the older father in section 3.2 (p 30), but when fertility specialists justify the age limits imposed on women seeking reproductive assistance, they argue that a mother should at least be alive to care for the child until the child is eighteen years old. However, it is clear that a child needs both his parents, not only his mother, even in adulthood (Saletan, 2009, n.p.). Adult children still need support and guidance from their parents (Umberson & Chen, 1994, p 2). They will need advice and financial assistance, such as a loan to help buy a house, and an adult child needs their parents to be around to be the grandparents of the children they will have (Gillis, 2012, n.p.). Studies have shown that when a child has a special bond with a parent, like children of older parents usually do, as I described at the start of this section, the death of this parent severely affects not only

the psychological but also the physical well-being of this child even though they are an adult (Umberson & Chen, 1994, p 15). So, this argument does not exclusively apply to people becoming parents later in life because, for a child of any age, it is distressing and harmful to deal with the loss of a parent. The difference is that people who become parents later in life are usually very aware of this reality, and they mitigate this issue by taking better care of themselves than they would otherwise (Shulevitz, 2012, n.p.). They stay fit and are proactive when it comes to their health by going for regular health checks (Kincaid, 2016, n.p.). The life-expectancy argument is much more complex than what society wants it to be, and it does not leave space for the important advantages that having older parents brings to a child's life (Appel, 2009, n.p.).

People who become parents later in life must know that parenthood at a later stage is not always easy. There are emotional difficulties associated with it. Gillis (2012, n.p.), an older mother herself, writes that it is challenging to have a toddler while going through menopause and to have a child in school at the age of sixty. It can be hurtful when an older parent is mistaken for the child's grandparent, and a child will reach an age where they might be embarrassed about how much older their parents look compared to the parents of other children (Shulevitz, 2012, n.p.). This issue might be perceived as trivial because outer appearances should not matter, but let's face it: society can be superficial. This seemingly insignificant issue can result in a child feeling left out or withdrawing socially or a parent struggling to become part of the child's parental community. This can be detrimental to the child's social interaction with other children.

From the psychological implications of becoming a parent later in life, which I discussed in this section, it is evident that there are many advantages for a child to have older parents, but there is also a potentially severe disadvantage. People becoming parents later in life should be aware of the psychological implications, prepare their children for the disadvantages, and plan how they will deal with them.

3.4.3 IMPLICATIONS RELATED TO THE FAMILY STRUCTURE

People who become parents later in life often have fewer children, not necessarily because they want to, but rather because their chances of success with reproductive assistance are diminishing or they reach the age limit imposed by fertility clinics while trying to have more children (Shulevitz, 2012, n.p). Another reason for people becoming parents later in life not having the same number of children as younger parents is because they consider the financial implications of having a child in a later life stage, as I discussed at the beginning of this section, subsection 3.4.1 (p 49).

There is a general perception, sometimes shared by people becoming parents later in life, that an only child is a lonely child or that it is unfair to the child to be an only child as they will have no one to share the responsibility of taking care of their elderly parents someday (Newman, 2020, n.p.). Newman (2020, n.p.) writes that considering the do-no-harm argument, these are valid concerns but that they can be circumvented by ensuring that a child has social interaction with other children and is part of a

support network consisting of friends and extended family members like aunts, uncles and cousins.

Hendricks (2016, n.p.) is concerned that the children of people who became parents later in life grow up without their grandparents because they are either too old to be involved in a child's life or are no longer around. In his article about a child's right to have grandparents, he writes that grandparents play an essential role in the parent's as well as the child's life as they often provide emotional and physical support to inexperienced parents by babysitting when parents need them to and giving advice (Hendricks, 2016, n.p.). Shulevitz (2012, n.p.) echoes Hendricks when she writes that people becoming parents later in life find themselves relying on friends or siblings for support as their parents, the grandparents of the child, are often old and struggling with ailments preventing them from fulfilling the supportive role of a grandparent. She further explains that even though it is possible to replace the support a grandparent gives by babysitting and helping to raise a child with another family member or even paid help, the role of a grandparent in a child's life is much more than support for the parents (Shulevitz, 2012, n.p.). A child needs a grandparent to spoil them and to teach them family traditions (Shulevitz, 2012, n.p.) However, what Hendricks and Schulevitz do not consider is that globalisation leads to young people emigrating from countries like South Africa to first-world countries that can offer them and their children a better life. So, even children of young parents are growing up without their grandparents. The reality of many South African-born children is that they grow up without their grandparents even though their grandparents are still alive and young enough to play

a supportive role. People have adapted to the lack of grandparents by creating alternate support structures, including friends that become part of the “new” family.

The extended family of a child might include much older siblings. People becoming parents later in life, specifically men, sometimes have children from a previous relationship but find themselves in a new relationship with a younger partner who wants to have children (Downey, 2000, n.p.). So, these families consist of adult children and small children sharing a parent, mostly a father. Downey (2000, n.p.) writes that a family with children at different life stages can benefit the family as the adult children can fulfil the supporting role of a grandparent who is too old or not there anymore. He, however, notes that, unfortunately, having children during different life stages can also lead to conflict in a family (Downey, 2000, n.p.). Adult children might resent their father, who spent little time with them because he was building a career and financial stability, while their younger sibling is reaping the rewards of quality time with their father and also financial benefits (Downey, 2000, n.p.). His solution to this potential family conflict is that parents with children of different ages need to support them in ways appropriate for their life stage because, as I discussed in the previous subsection 3.4.2 (p 52), even adult children need support (Downey, 2000, n.p.).

Adult children are an essential part of the support network of a child with older parents and even older or no grandparents. So, to reason based on the do-no-harm argument that people becoming parents later in life is harming their child by only having one

child is not a strong argument, and the idea that a child is harmed when they are not part of a support network of a three-generational family is not an issue exclusive to people becoming parents later in life.

As I pointed out in the three subsections above, the financial implications (p 49), the psychological implications (p 52) and the implications on the family structure (p 58) of becoming a parent later in life are complex, and there are no rules to guide a person considering becoming a parent later in life. It is, however, important that people becoming parents later in life consider these implications that will be part of their future and plan accordingly to prevent harm to their child. Their future needs and those of the child must be anticipated as far as possible so their plans can be tailored to the unique overlap of the different stages of their and their children's lives. The future plan of a forty-year-old parent will be very different from that of a person who becomes a parent when they are fifty years old.

3.5 THE ETHICAL AND SOCIAL ISSUES OF BECOMING A PARENT LATER IN LIFE THAT IMPACT SOCIETY

So far, the ethical and social issues relating to becoming a parent later in life that I discussed involve either the parents or the child directly. When people decide to become parents at a later stage in their lives, it is a very personal decision. They seldom think about the world this child will have to live in, and yet, as Appel (2009, n.p.) writes in his article, no other personal decision has a more consequential impact on the environment and society.

Population numbers are severely affected by people becoming parents later in life because, as I discussed in subsection 3.4.3 (p 58), people who become parents later in life have smaller families, sometimes only a single child. In some countries, this leads to marginal or even negative population growth where not enough children are born to replace the people who die (Kincaid, 2016, n.p.). The Lancet published research earlier this year showing that by 2050, almost three-quarters (155 of 204) of countries will not have enough births to sustain population numbers over time (Bhattacharjee *et al.*, 2024, p 2087). It is only in low-income countries, more specifically in sub-Saharan Africa, that births are increasing up to a point, where the prediction is that by 2100, one in every two children will be born in Africa (Bhattacharjee *et al.*, 2024, p 2087). Munn (2024, n.p.) explains in his article that people who support the pronatalist movement think that the decline in the birth rate in developed countries, like Finland and Sweden, poses a serious threat to the existence of the human race. Elon Musk ([@elonmusk], 2022), an advocate

of pronatalism, tweeted: “Population collapse due to low birth rates is a much bigger risk to civilization than global warming”.

Pronatalists support the notion that one has a duty to society to have many children. Munn (2024, n.p.) writes that one of the reasons pronatalists advocate for having more children is to ensure economic growth. When fewer children are born, fewer young people join the workforce, which results in a much older workforce as working people cannot retire. With the current pace at which technology is evolving, older people’s skills become outdated much quicker, up to the point where they need to retrain (Shulevitz, 2012, n.p.). Retraining workers is much more expensive than having them retire and be replaced by a younger employee already trained in the new technology (Shulevitz, 2012, n.p.). The argument that children from older parents have a better education, as I discussed in subsection 3.4.1 (p 49), does not entirely balance the impact fewer children have on economic growth. This better education results in them making an economic contribution much later in their lives. There is a need for mass labour and not everybody contributing to the workforce needs good education (Shulevitz, 2012, n.p.). Older people are now forced to work until much later and cannot enjoy retirement. According to Munn (2024, n.p.), another reason pronatalists put forward for having many children is that soon, society will deal with an ageing population. Shulevitz (2012, n.p.) reiterates this idea by writing that due to fewer children, there will be no one to support the elderly and care for the older generation. Older people rely on costly nursing homes and carers to look after them. In a society with decreased economic resources, one can only hope their financial

planning will provide for this expense as the demand for health care and social services is becoming a bigger problem (Garget, 2020, n.p.).

Critics of pronatalism argue that it is only in some countries that birth rates are dipping below the replacement rate. In most African countries, birth rates are rising (United Nations Population Fund, no date, n.p.). However, Munn (2024, n.p.). explains in his article this argument simplifies the doctrine of pronatalism because their concern is not that people are not reproducing, but instead, it is not the “right” people who are reproducing. This pronatalist view of replacing society with people of the same ethnicity, class and financial status opens an ethical can of worms concerning geneticism that is outside the scope of this report, but we are producing a society with different population structures that can influence society negatively in the future (Garget, 2020, n.p.). This pronatalistic argument makes a strong point to encourage older people to become parents later in life. Not only did older parents, especially older mothers, already made a contribution to economic growth, but if one agrees with Elon Musk and other pronatalists that economic growth is dependent on the type of children we bring into this world, children from older parents that are more educated and had more opportunities might make a more valuable contribution to society in the long run, albeit be there fewer of them. Garget (2020, n.p.) writes that there is a shift from “successful parents have lots of children to successful parents have successful children”.

Having fewer children is not necessarily always unfavourable for society. A smaller population has environmental benefits. Overpopulation impacts scarce resources like food, water, and energy (Kincaid, 2016, n.p.). Environmentalists researching climate change are increasingly concerned about the effect an increasing population has on environmental degradation. The United Nations International Panel on Climate Change Report concludes that mankind has twelve years to prevent global warming from rising above a limit that will have catastrophic implications (Rhodes, 2019, p 73). A study published in Environmental Research Letters found that having fewer children is the most significant factor in reducing carbon emissions (Wynes & Nicholas, 2017, p 7). Even though environmentalists support reproductive freedom, they urge people to think about the future of the world their children will have to live in (Wynes & Nicholas, 2017).

The impact on society of becoming a parent later in life is much more complex than just a declining birth rate and adding to the complexity is the argument that a declining birth rate might have its advantages. While it is difficult to base a personal decision on the future of a society, one that you might not be part of as an older parent, people need to think about the future of their children and the world they will have to live in.

CHAPTER 4: SUMMATIVE ANALYTICAL DISCUSSION OF THE ISSUES AND RECOMMENDATIONS

Now that I have described the pertinent ethical and social issues related to becoming a parent later in life in Chapter 3 (p 20) of this report, I will give an analytical discussion of these issues to justify the recommendations I make in the conclusion of this report.

As I discussed in section 3.1 (p 21) and section 3.2 (p 30), the issues related to becoming a parent later in life are primarily rooted in the judgement older parents, and more specifically older mothers, bear. Even though reproduction is a basic right, people are unsure how far this right should extend, and based on the judgement of older parents, it seems that society thinks this right should be taken away at some point. What makes this moralistic judgement an ethical concern is that no one is exactly sure when someone is too old to become a parent, and one gets the impression that it is more a matter of how old a person looks instead of their actual age. The unfair, harsher judgement of older women vs older men further complicates this ethical concern. The medical terminology used in the ethical debate and the arbitrary and non-standardised age limitations fertility clinics place on reproductive assistance, as I discussed in section 3.3 (p 35), contribute to this ethical confusion.

Even though there are ethical arguments to support the notion that the right to reproduce should be taken away at some point, no one is sure how to apply these arguments because it becomes problematic when these arguments are applied to a select group, like people becoming parents later in life, to infringe on their right to reproduce. The

arguments put forward to support the notion that reproduction should not be an absolute right and should be taken away in some situations are, as I discussed in section 3.1 (p 21), the natural law argument, the life expectancy argument and the do-no-harm argument. However, these arguments and subsequent moralistic judgements cannot be used selectively and should then also apply to other groups of people in society, like for example cancer survivors or people with disabilities, who can potentially harm their children, as I will explain in the paragraph.

If the natural law argument used to judge women becoming parents later in life is applied across the board, then cancer survivors who cryopreserved their eggs or semen and need reproductive assistance to have a child should also be judged as having a child in an unnatural way. Cancer survivors also pose potential harm to their children based on the life expectancy and the do-no-harm argument. They have reduced cognitive status, chronic fatigue syndrome, a high risk of being diagnosed with a second cancer in their lifetime and an elevated risk of developing a severe or life-threatening disease (Cupit-Link *et al.*, 2017, p 2). Survivors of childhood cancer have a 30% lower life expectancy than the general population (ASH Clinical News, 2021, n.p.). Due to the risk of a decreased life expectancy, a cancer survivor can potentially harm their child by not being around until they reach the age of eighteen. Their physical ability and energy to raise and care for a child should be questioned just as much as that of an older woman. Yet, society never seems to apply these moralistic judgements by which they judge people, more specifically older women, becoming parents later in life to a woman who survived cancer and wants to have a child.

In the same vein, people with disabilities can also bring potential harm to their children. In 2003, the Rocky Mountain Woman's Clinic refused a blind woman further reproductive assistance because they questioned her ability to care for a child. The fertility clinic requested that an occupational therapist do a home assessment before they continue her treatment (CBS News, 2003, n.p.). CBS News (2003, n.p.) reported on her lawsuit against the fertility clinic and in this report, Mark Rothstein, a fertility law expert and bioethicist at the University of Louisville, commented that "a doctor cannot refuse to do a reproductive procedure because a woman is blind or place new conditions on continuing treatment" (CBS News, 2003, n.p.). However, if one applies the do-no-harm argument used to judge people becoming parents later in life without exception, the fertility clinic was right to have ethical concerns.

As I discussed in section 3.1 (p 21), it is evident who society deems appropriate to become a parent is a matter of interpretation of the right to reproduce and moralistic judgements are applied selectively. I suggest that one should not view this right as absolute but rather regard it in the specific context of the person who wants to become a parent. So, the cancer survivor, a person with a disability, and a person becoming a parent later in life should bear discrimination and judgement based on the specific context of their age, physiology, life expectancy and support network. One can go as far as to say that a person of any age should justify why they want to become a parent, and their ability to care for a child should be judged based on their context. A single twenty-year-old

mother living on social support should have the same amount of explaining to do as a fifty-year-old female in a loving relationship with financial stability.

Despite the disparities in how society regards the freedom to reproduce, some valid points are raised in the debate about people becoming parents later in life and their reproductive freedom. When people becoming parents later in life are judged, there is a unique set of issues that needs to be part of the debate, and these issues should carry weight when one considers their reproductive rights. As I discussed in section 3.4 (p 47), the financial implications, psychological implications, the implications on the family structure and in section 3.5 (p 62) the impact on society are different for a person, as well as their child, when they become a parent later in life. I think the problem with the moralistic judgment of people becoming parents later in life lies in the attempt to establish a pivotal age limit at which this person is too old to be a parent. Even worse is the vague sentiments of society that a person is too old to be a parent somewhere in the range of midlife or when their appearance is that of a person in midlife.

To solve this problem, one should consider the notion that the right to reproduce, or if applied indiscriminately, even the right to adopt a child, should gradually decline as a person ages. This gradual decline of the right to reproduce should be applied to both men and women because, as I discussed throughout this report, men pose just as great a health risk to their future children as women, and they play an equally important role in the lives of their children. So, the life expectancy and the do-no-harm arguments also apply to men. Caplan (2005, n.p.) wrote that the ages of both parents should not total 130. Even though Caplan correctly includes the father's age and compensates for older

women having younger partners in his formula, his absolute number of 130 is not based on scientific grounds. Caplan's idea should be refined, and further discussion by a panel of ethicists, medical professionals, and laypeople should happen to agree on a reasonable total age.

It is time that the right to reproduce not only becomes a debate where people becoming parents later in life are concerned, but society also needs to be mindful of reproductive choices and how the right to reproduce is interpreted. In the next section, the conclusion of this report, I will list factors that fertility clinics should use as part of their screening process and should also be considered by anyone who wants to have a child, regardless of their age. These factors must be part of the planning process before a person embarks on the journey of parenthood.

CHAPTER 5: CONCLUSION

In the past, the issue of people becoming parents later in their lives was almost exclusively an indulgence of the rich and famous, as I described in the background section (p 4) of this report. However, it is now mainstream, with average maternal ages rising over the last decade.

Society seems to think that at some point in their lives, people, and more specifically women, should not be having children anymore. As I discussed in section 1.1 (p 4), the problem is that there is no consensus regarding the age at which a person reaches this point. The medical field does not help determine this point as their terminology and definitions only include women and relate to health risks that might be circumnavigated with the advances in the medical field over the past few decades. The age restrictions fertility clinics use are inconsistent and do not relate to the medical definitions and terminology. If one assumes that the age restrictions fertility clinics use are based on ethical concerns, it becomes confusing that men are not included in their age restrictions.

The right to reproduce and the merits of the natural law argument, the life expectancy argument, and the do-no-harm argument, as I discussed in section 3.1 (p 21) and section 3.2 (p 30) and the issues around reproductive assistance in older women, as I discussed in section 3.3 (p 35), should be an ongoing debate. However, until there is a consensus to change how we judge people becoming parents later in life, this issue needs to be addressed more practically to guide those considering becoming parents later in life in this confusing matter.

My recommendation is that fertility clinics should reconsider the arbitrary age limits they impose on women seeking reproductive assistance. They should have a standardised regulatory system that includes the father's age and provides room to evaluate and consider the context of women becoming parents later in life. The criteria these teams use should be internationally standardised to prevent fertility clinics from falling into a trap that a couple, who were not deemed eligible for reproductive assistance in their own country, could exploit reproductive assistance tourism. This regulatory system should include a screening process performed by a multidisciplinary team consisting of medical professionals, ethicists, psychologists, occupational therapists and financial planners, implemented by fertility clinics, as it will result in a more ethically sound justification when people who want to become parents later in life are accepted or declined for reproductive assistance.

Criteria that the multidisciplinary team would need to consider:

- Age: The right to reproduce should decline with age, but the age of both parents should be considered so that at least one parent, even the father, is around to care for the child until he reaches eighteen. The best way to evaluate the parents' age is to combine their ages into a total, as Caplan suggested, but his formula needs to be refined.

- General Health Screen: Both women and men who want to become parents later in life should undergo a health screen to establish if they are at risk of severe or life-threatening diseases that can impact their life expectancy or the ability to care

for a child. The screen should also identify modifiable risk factors and lifestyle behaviours that can affect a person's health in the future.

- Life Expectancy: The life expectancy parameter should consider the age of the person becoming a parent later in life and other factors that impact life expectancy, like general health and socioeconomic status. The age of their parents and other genetic relatives can also indicate their probable life expectancy. An adjustment should be made for the country they live in to mitigate the risk of reproductive assistance tourism, where people travel to a country for reproduction assistance to circumnavigate their own countries' limitations on reproductive assistance.

- Reproductive System Health Screening: Women and men are asked to ascertain the extent of the reproductive assistance needed. The woman's reproductive system needs to be evaluated to ensure that she will be able to carry a healthy pregnancy. This should also include genetic screening of both the parents and genetic tests performed on the embryo. Hopefully, as the medical field advances, tests for diseases and disabilities caused by epimutations and older sperm will also become available.

- Emotional Stability and Maturity: It is impossible to comprehend all the challenges that await, but it is essential to know that there will be challenges and assess whether a person has the make-up to deal with them. However, questions that need to be asked are, for example, how will they deal with a teenager at sixty or

seventy? Or how will they deal with a child with a disability? Despite the conflicting data on post-natal depression, it is safe to say that any mother is at risk but that this risk should not preclude her from exercising her right to reproduce. Instead, women should be asked how they will deal with post-natal depression and what support system they have in place.

- Support Structure: People becoming parents later in life should have a support network to help them care for their children. They should have an agreement on who will take care of the child if both parents die before the child is independent.

- Financial Planning: People becoming parents later in life should have a financial plan that allows them to retire while supporting a child. They should also have a will that ensures that the child is taken care of in the event they die before the child is independent.

It is pertinent that people, and especially women, should be made aware that their right to reproduce is not absolute. The decline of fertility after the age of thirty-five years for women and after the age of forty years for men is a known phenomenon. Yet, the success rate, even with reproductive assistance and the age limits fertility clinics impose on women, is rarely emphasised (Caplan &Patrizio, 2010, p283). Awareness campaigns on the age limitations imposed on reproductive assistance must be a priority. People, especially women, need to realise that as it stands today, there are restrictions upon their freedom to reproduce and that despite what they see in the media, not everyone can have

a child at seventy-four (Caplan & Patrizio, 2010, p 282; Neil, 2024, n.p.). Awareness campaigns should also make people aware of the risks older men pose to their future children. The onus to preserve their reproductive health should not only be placed on women. Measures that men can take to minimise harm to their child include sperm cryopreservation to avoid the risk of disabilities caused by de-novo and epigenetic mutations associated with spermatozoa produced by older men. Men must take responsibility for the part they play in potentially harming the future child.

This confusing and complicated topic is far from resolved. Still, I hope this report will create awareness and spark a discussion about the ethical dilemmas related to people becoming parents later in life, not only among ethicists and medical professionals but also among the public.

CHAPTER 6: REFERENCE LIST

AB vs Minister of Social Development (3) SA 570 (CC) (2017).

Age Guidelines for IVF (no date) *Reproductive Science Centre*. Available at: https://rscbayarea.com/treatments/ivf/age (Accessed: 21 May 2024).

Ali, Z. (2020) *The Impact of Fertility Treatment on Mental Health*, *Hertility Health*. Available at: https://hertilityhealth.com/blog/fertility-struggles-and-mental-health (Accessed: 13 August 2024).

Appel, J.M. (2009) 'Motherhood: Is It Ever Too Late?', *HuffPost Contributor*, 15 August. Available at: https://www.huffpost.com/entry/motherhood-is-it-ever-too_b_233916 (Accessed: 11 January 2024).

Being a mother after 40: reproduction options, pros and cons (2020) *Instituto Bernabeu – Clínicas de reproducción asistida*. Available at: https://www.institutobernabeu.com/en/blog/being-a-mother-after-40-reproduction-options-pros-and-cons/ (Accessed: 11 January 2024).

Bewtra, C. and Acharya, N. (2023) 'Preservation of Fertility in Cancer Patients: A Narrative Review', *Cureus*, 15(10), pp. 1–8. Available at: https://doi.org/10.7759/cureus.47910.

Bhattacharjee, N.V. *et al.* (2024) 'Global fertility in 204 countries and territories, 1950–2021, with forecasts to 2100: a comprehensive demographic analysis for the Global Burden of Disease Study 2021', *The Lancet*, 403(10440), pp. 2057–2099. Available at: https://doi.org/10.1016/S0140-6736(24)00550-6.

Blind Woman Suing Fertility Clinic (2003) *CBS News*. Available at: https://www.cbsnews.com/news/blind-woman-suing-fertility-clinic/ (Accessed: 8 June 2024).

Boivin, J. *et al.* (2018) 'What makes people ready to conceive? Findings from the International Fertility Decision-Making Study', *Reproductive Biomedicine & Society Online*, 6, p. 90. Available at: https://doi.org/10.1016/j.rbms.2018.10.012.

'Cancer Survivors Age Faster, Die Younger' (2021). Available at: https://ashpublications.org/ashclinicalnews/news/3614/Cancer-Survivors-Age-Faster-Die-Younger (Accessed: 8 June 2024).

Caplan, A. (2005) 'How old is too old to have a baby?', *NBC News*, 24 January. Available at: https://www.nbcnews.com/id/wbna6862098 (Accessed: 13 January 2024).

Caplan, A.L. and Patrizio, P. (2010) 'Are you ever too old to have a baby? The ethical challenges of older women using infertility services', *Seminars in Reproductive Medicine*, 28(4), pp. 281–286. Available at: https://doi.org/10.1055/s-0030-1255175.

Carrier Screening (2022) *American College of Obstetricians and Gynecologists*. Available at: https://www.acog.org/womens-health/faqs/carrier-screening (Accessed: 24 May 2024).

Child Maintenance Act 99 of 1998 (1998). Available at: https://www.justice.gov.za/legislation/acts/1998-099.pdf.

Children's Act 38 of 2005 (2005). Available at: https://www.justice.gov.za/legislation/acts/2005-038%20childrensact.pdf (Accessed: 17 May 2024).

Cupit-Link, M.C. *et al.* (2017) 'Biology of premature ageing in survivors of cancer', *ESMO Open*, 2(5), pp. 1–8. Available at: https://doi.org/10.1136/esmoopen-2017-000250.

Davies, M.J. *et al.* (2012) 'Reproductive Technologies and the Risk of Birth Defects', *New England Journal of Medicine*, 366(19), pp. 1803–1813. Available at: https://doi.org/10.1056/NEJMoa1008095.

De Clercq, E. *et al.* (2023) 'Rethinking advanced motherhood: a new ethical narrative', *Medicine, Health Care and Philosophy* [Preprint]. Available at: https://doi.org/10.1007/s11019-023-10172-w.

Dette-Hagenmeyer, D.E., Erzinger, A.B. and Reichle, B. (2014) 'The changing role of the father in the family', *European Journal of Developmental Psychology*, 11(2), pp. 129–135. Available at: https://doi.org/10.1080/17405629.2014.883313.

Downey, C. (2000) 'Getting Back on the Fatherhood Track After Age 50 - Los Angeles Times', *Los Angeles Times*, 18 June. Available at: https://www.latimes.com/archives/la-xpm-2000-jun-18-cl-42061-story.html (Accessed: 13 January 2024).

Elon Musk [@elonmusk] (2022) 'Population collapse due to low birth rates is a much bigger risk to civilization than global warming', *Twitter*. Available at: https://x.com/elonmusk/status/1563020169160851456 (Accessed: 2 June 2024).

European Convention on Human Rights - Article 12 (2018). Available at: https://fra.europa.eu/en/law-reference/european-convention-human-rights-article-12-0 (Accessed: 27 May 2024).

Eustice, K. (2020) 'Don't know if you want a baby? This is how I found my answer', *The Guardian*, 7 July. Available at: https://www.theguardian.com/lifeandstyle/2020/jul/07/dont-know-if-you-want-a-baby-this-is-how-i-found-my-answer (Accessed: 13 January 2024).

Fertility Treatment, Not Maternal Age, Causes Epigenetic Changes in Mouse Offspring (2019) *Magee-Womens Research Institute & Foundation*. Available at: https://mageewomens.org/news/fertility-treatment-not-maternal-age-causes-epigenetic-changes-in-mouse-offspring (Accessed: 21 May 2024).

Garget, J. (2020) *(When) are you going to have children?*, *University of Cambridge*. Available at: https://www.cam.ac.uk/stories/havechildren (Accessed: 17 May 2024).

Gillis, W. (2012) 'Motherhood after 40: Ethical debate rages over how old is too old to become a mother', *Toronto Star*, 4 January. Available at: https://www.thestar.com/life/motherhood-after-40-ethical-debate-rages-over-how-old-is-too-old-to-become-a/article_c8bde21f-4b9a-57ec-be1c-3a520c99b2a7.html (Accessed: 21 November 2023).

Gruber, R. (2023) *Celebrity Moms Who Have Had Kids After Turning Age 40*, *Popsugar*. Available at: https://www.popsugar.com/family/celebrities-who-have-given-birth-after-turning-40-18336391 (Accessed: 25 June 2024).

'Guide for Developing and Submitting a Research Proposal' (no date).

Harris, I.D. *et al.* (2011) 'Fertility and the Aging Male', *Reviews in Urology*, 13(4), pp. e184–e190.

Having a Baby After Age 35: How Aging Affects Fertility and Pregnancy (2023) *American College of Obstetricians and Gynecologists*. Available at: https://www.acog.org/womens-health/faqs/having-a-baby-after-age-35-how-aging-affects-fertility-and-pregnancy (Accessed: 15 May 2024).

Hendricks, S. (2016) *No Grandparents: One Big Disadvantage to Having Children Later in Life*, *Big Think*. Available at: https://bigthink.com/culture-religion/is-there-a-right-to-have-grandparents-it-depends-on-who-you-ask/ (Accessed: 11 January 2024).

Kincaid, E. (2016) 'Why having kids later is a really big deal', *Business Insider*, 6 October. Available at: https://www.businessinsider.com/why-delaying-parenthood-and-having-kids-later-is-a-big-deal-2015-6 (Accessed: 13 January 2024).

Kong, A. *et al.* (2012) 'Rate of de novo mutations and the importance of father's age to disease risk', *Nature*, 488(7412), pp. 471–475. Available at: https://doi.org/10.1038/nature11396.

Launder, A. (2020) 'The Changing Role Of The Father - The Awareness Centre', 19 June. Available at: https://theawarenesscentre.com/father/ (Accessed: 6 June 2024).

Life Expectancy by Country and in the World (2024). Available at: https://www.worldometers.info/demographics/life-expectancy/ (Accessed: 21 May 2024).

Lilienthal, D. and Cahr, M. (2020) 'Genetic Counseling and Assisted Reproductive Technologies', *Cold Spring Harbor Perspectives in Medicine*, 10(11), p. a036566. Available at: https://doi.org/10.1101/cshperspect.a036566.

Malaspina, D. *et al.* (2001) 'Advancing Paternal Age and the Risk of Schizophrenia', *Archives of General Psychiatry*, 58(4), pp. 361–367. Available at: https://doi.org/10.1001/archpsyc.58.4.361.

Mannarino, M. (2023) *Genetic Testing Before Pregnancy: What You Need To Know*, *Forbes Health*. Available at: https://www.forbes.com/health/family/genetic-testing-before-pregnancy/ (Accessed: 24 May 2024).

McGuinness, S. and Widdows, H. (2016) 'Chapter 2:Access to Basic Reproductive Rights: Global Challenges', in *The Oxford Hanbook of Reproductive Ethics*. Oxford University Press, pp. 58–77. Available at: https://doi.org/10.1093/oxford/9780199981878.001.0001 (Accessed: 11 January 2024).

Munn, L. (2024) *Pronatalism is the latest Silicon Valley trend. What is it – and why is it disturbing?*, *The Conversation*. Available at: http://theconversation.com/pronatalism-is-the-latest-silicon-valley-trend-what-is-it-and-why-is-it-disturbing-231059 (Accessed: 1 June 2024).

Muraca, G.M. and Joseph, K.S. (2014) 'The Association Between Maternal Age and Depression', *Journal of Obstetrics and Gynaecology Canada*, 36(9), pp. 803–810. Available at: https://doi.org/10.1016/S1701-2163(15)30482-5.

National Health Act 1 of 2003 (2003). Available at: https://www.gov.za/sites/default/files/gcis_document/201609/40312gon1165.pdf.

Neil, S. (2024) '10 Oldest Mothers in the World', *Oldest.org*. Available at: https://www.oldest.org/people/mothers/ (Accessed: 14 May 2024).

Newman (2020) *Growing Up Without Siblings: Adult Only Children Speak Out*, *Psychology Today*. Available at: https://www.psychologytoday.com/za/blog/singletons/201910/growing-up-without-siblings-adult-only-children-speak-out (Accessed: 7 June 2024).

Parent Definition | Legal Glossary | LexisNexis (no date). Available at: https://www.lexisnexis.co.uk/legal/glossary/parent (Accessed: 17 May 2024).

Pletcher, K. (no date) 'One-child policy', *Encyclopedia Britannica*. Available at: https://www.britannica.com/topic/one-child-policy (Accessed: 8 June 2024).

Prenatal Genetic Screening Tests (2023) *American College of Obstetricians and Gynecologists*. Available at: https://www.acog.org/womens-health/faqs/prenatal-genetic-screening-tests (Accessed: 24 May 2024).

Rasmussen, A.C. (2016) 'Chapter 1: The Discursive Context of Reproductive Ethics', in L. Francis (ed.) *The Oxford Handbook of Reproductive Ethics*. Oxford University Press, pp. 45–57. Available at: https://doi.org/10.1093/oxfordhb/9780199981878.013.2.

Rhodes, C.J. (2019) 'Only 12 years left to readjust for the 1.5-degree climate change option – Says International Panel on Climate Change report: Current commentary', *Science Progress*, 102(1), pp. 73–87. Available at: https://doi.org/10.1177/0036850418823397.

Roberts, M.A. (2022) 'The Nonidentity Problem', in E.N. Zalta and U. Nodelman (eds) *The Stanford Encyclopedia of Philosophy*. Winter 2022. Metaphysics Research Lab, Stanford University. Available at: https://plato.stanford.edu/archives/win2022/entries/nonidentity-problem/ (Accessed: 27 May 2024).

Saletan, W. (2009) 'Fertile Old Ladies', *Slate*, 30 July. Available at: https://slate.com/technology/2009/07/is-it-ok-to-impregnate-a-60-year-old-woman.html (Accessed: 14 May 2024).

Savulesco, J. (2001) 'Procreative beneficience: why we should select the best children', *Bioethics*, 15(5–6), pp. 413–426.

Schroeder, A.C. (2024) 'What is Middle Age and What Age is Officially Old?', *Curious*, 16 January. Available at: https://medium.com/curious/what-is-middle-age-and-what-age-is-officially-old-d1dadbeb37c5 (Accessed: 16 May 2024).

Shulevitz, J. (2012) 'How Older Parenthood Will Upend American Society - The scary consequences of the greyest generation.', *The New Republic*, 20 December. Available at: https://newrepublic.com/article/110861/how-older-parenthood-will-upend-american-society (Accessed: 19 December 2023).

Silverman, M.E. *et al.* (2017) 'The Risk Factors for Postpartum Depression: A Population Based Study', *Depression and anxiety*, 34(2), pp. 178–187. Available at: https://doi.org/10.1002/da.22597.

Soni, S. (2019) 'Prêt-à-Porter Procreation: Contemplating the Ban', *Potchefstroom Electronic Law Journal (PELJ)*, 22(1–36). Available at: http://dx.doi.org/10.17159/1727-3781/2019/v22i0a5681.

Staff, U.W. (2023) 'Celebrity Fathers Who Welcomed Children Late in Life', *Us Weekly*, 18 June. Available at: https://www.usmagazine.com/celebrity-moms/pictures/celebrity-dads-who-had-children-late-in-life-w457418/ (Accessed: 19 December 2023).

Umberson, D. and Chen, M.D. (1994) 'Effects of a Parent's Death on Adult Children: Relationship Salience and Reaction to Loss', *American Sociological Review*, 59(1), pp. 152–168. Available at: https://doi.org/10.2307/2096138.

Vitalab Statistics - Success rates for fertility treatment (no date) *Vitalab*. Available at: https://www.vitalab.com/stats/ (Accessed: 21 May 2024).

Weinhold, B. (2006) 'Epigenetics: The Science of Change', *Environmental Health Perspectives*, 114(3), pp. A160–A167.

Where do abortion rights stand in the world in 2024? (2024) *Focus 2030*. Available at: https://focus2030.org/Where-do-abortion-rights-stand-in-the-world-in-2024 (Accessed: 8 June 2024).

Why are people living longer? (no date) *Royal Geographic Society with IBG*. Available at: https://www.rgs.org/schools/resources-for-schools/who-wants-to-live-forever/why-are-people-living-longer/ (Accessed: 18 May 2024).

Wiecki, A. (2020) *IVF Age Limit – countries and regulations*, *Fertility Clinics Abroad*. Available at: https://www.fertilityclinicsabroad.com/ivf-clinics-abroad/ivf-age-limit-how-old-is-too-old/ (Accessed: 21 May 2024).

World Population Dashboard (no date) *United Nations Population Fund*. Available at: https://www.unfpa.org/data/world-population-dashboard (Accessed: 2 June 2024).

Wynes, S. and Nicholas, K.A. (2017) 'The climate mitigation gap: education and government recommendations miss the most effective individual actions', *Environmental Research Letters*, 12(7), p. 074024. Available at: https://doi.org/10.1088/1748-9326/aa7541.