

ORIGINAL ARTICLE

Reflections on fertility and postponed parenthood—interviews with highly educated women and men without children in Sweden

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Abstract

Background. Different reasons influence the current low birth-rate and the postponement of the birth of the first child throughout Europe. The aim of this study was to explore how highly educated women and men in Sweden reflect on fertility and postponed parenthood.

Methods. We interviewed women ($n = 22$) and men ($n = 18$) who had started their professional careers and still had no children. Data were analysed with qualitative content analysis.

Results. Fertility was perceived as an unconsidered capacity, sometimes unpredictable, and different for women and men, but nevertheless taken for granted. The participants were of the opinion that fertility could be restored by assisted reproductive technologies or replaced by alternatives to a biological child. Postponed parenthood was described as an adaptation to societal changes and current discourses about parenthood as well as a consequence of a contemporary lifestyle with many competing priorities.

Conclusion. Highly educated young women and men in contemporary Sweden have competing priorities when planning and setting goals for their lives, and having children is one of them. They describe fertility as an imperceptible and retrievable capacity and postponed parenthood as a rational adaptation to changes in society. These findings suggest that increased information about the limitations of human reproduction is needed, but also that societal support for younger parents is of utmost importance.

Key words: *Content analysis, fertility, interviews, parenthood, reproduction*

Introduction

Throughout Europe birth-rates have declined over the last decades, and in most countries they are well below the replacement level (1). In Sweden, the number of children being born per woman has fluctuated greatly since the mid-1970s but has now been predicted to stabilize at a level around 1.8 (2). The declining birth-rate can partly be explained by an increasing age at first birth (3); furthermore, today there is clear empirical evidence of the postponement of the first child in several countries (4–6).

Higher education has been associated with delayed childbearing (7), and the association between female education and the age of becoming a first-time parent has been well documented (8,9), showing that highly educated women are more likely to pursue careers and postpone having children (5). Women's labour force participation has been associated with postponement largely due to the incompatibility of caring for children and participation in the paid labour force. However, it has been possible to combine female employment and childbearing when the reduction in work–family conflict was facilitated by state or

policy interventions, such as in some Scandinavian countries (10,11).

It seems, however, that postponed childbearing is a result of several different reasons. For example, efficient and reliable oral contraception has had an impact on family planning in many modern societies (12,13). A US study found that multiple partnerships before marriage, higher levels of non-marital cohabiting, and difficulty in finding a suitable partner might contribute to later births (14). It has also been reported that young adults delay childbearing until they are financially secure, so they can afford to support children (15). In addition, the emergence and development of assisted reproductive technologies (ARTs) have been suggested to promote perceptions that childbearing can be resumed at a later and more convenient phase of life (16).

Surveys concerning attitudes towards future parenthood and awareness about fertility among undergraduate and postgraduate students in Sweden have shown that these young women and men had largely positive attitudes towards having children, but they were not sufficiently aware of the limitations associated with ageing (17–19). Similar results have been reported in a recent study among Finnish university students, in which one-third of the women and more than half of the men believed that a marked decline in female fertility begins after the age of 45 (20). In a Canadian survey among female undergraduate students, it was found that women were aware that fertility declines with age, but they overestimated the chances of pregnancy at any age and were not aware of the steep rate of fertility decline with age (21). However, knowledge about the influence of female age on childbearing success was not predictive of their childbearing intentions.

The adverse effects of ageing on reproduction are complex and multifactorial. It is known that women's ability to conceive starts to decline in their late 20s and rapidly falls by the mid-30s, mainly due to reduced quantity and quality of ovarian follicles (3,22). In addition, after the age of 35 an increase in pregnancy complications and prenatal maternal morbidity, as well as impaired prenatal and postnatal outcome of the child has been reported (23–25). There is also increasing evidence that paternal age, at least over the age of 40, is associated with lower fertility-related outcome and anomalies in the offspring (26,27).

Societal attitude towards family and children also forms the context in which the subjective preferences and assessments regarding family formation are made. The tendency towards individualism, the endeavour for self-fulfilment, increasing freedom of choice, and greater tolerance towards new lifestyles

and reproductive behaviours have also been suggested to influence the decline in births and the postponement of childbearing (28).

Most research concerning postponed childbearing has focused on women and has mostly been based on standardized questionnaires or register data (29); however, the information gathered from the viewpoint of highly educated young people themselves is more random. Thus, the aim of the present study was to gain a more comprehensive understanding of how young, highly educated women and men without children, who had started their professional career, reflect on fertility and postponed parenthood.

Materials and methods

We performed individual interviews with 22 women and 18 men between 24 and 38 years of age. The criteria for inclusion were 4 years or more of university education, having started a professional career, and not yet having children. The participants were recruited using advertisements placed in different work-places where the majority of staff had a higher education. Those who were interested in participating were requested to phone or send an e-mail to the project leaders for further information and arrangement of a suitable time for the interview. The interviews took place in a convenient room offered by the work-place, or outside the office. The interviews were audiotaped and lasted for about half an hour. The interview guide covered two main areas: 1) personal attitudes towards having children in the future and 2) reflections on fertility and postponement of parenthood. The findings related to personal attitudes towards future parenthood have previously been published (30). All interviews were transcribed verbatim and analysed according to qualitative content analysis (31).

The transcripts were read several times to gain a sense of the whole. Constellations of words, sentences, or paragraphs related to the study aim were identified and condensed. Thereafter, codes were created, and finally the codes were sorted into seven subcategories and two categories according to their content and meaning. The process of developing categories is illustrated in Tables I and II.

Results

In the following section, the two categories 'Fertility—an imperceptible and retrievable capacity' and 'Postponed childbearing—a rational adaptation to societal changes' are presented. Quotations from the interviews are used for illustration.

Table I. Examples of condensed meaning units, codes, subcategories, and categories.

Meaning units	Codes	Subcategory	Category
‘In a larger city one has so many other things to keep you busy anyway, so children come significantly later. Yes, but yeah, maybe it’s time, I thought a little like that, that it’s about time’	City life offers many alternatives to family formation	A consequence of contemporary lifestyles	Postponed parenthood—a rational adaptation to societal changes
‘To delay having children is probably due to the increased fear of growing up, to seriously be an adult because it’s so nice to have to worry only about yourself’	A sign of extended immaturity, or egocentricity		
‘Today it is expected to not only get an education but also to travel, learn a new language, live overseas and much more, and parenthood doesn’t fit so well in the story’	Expectations of further learning and striving for experiences and adventures	A consequence of competing priorities	
‘There are more women who study at universities, more women than men that graduate, and maybe the birth of a child is viewed as an obstacle to one’s career, that must be the explanation’	Women’s increased investment in higher education		
‘To have a child before 25 is not exactly something that is encouraged and maybe also not having children after 40 either’	Socially mediated perceptions about the timing of childbearing	A consequence of prevailing discourses about parenthood	
‘There is such an incredibly negative view about having a child when you are young, and among my friends there are many that see it as completely abnormal to have a child before 30’	Early parenthood is unfavourable		

Fertility—an imperceptible and retrievable capacity

The category ‘Fertility—an imperceptible and retrievable capacity’ consisted of four subcategories: ‘Unconsidered and taken for granted’, ‘Unpredictable and different for women and men’, ‘Restorable by medical technology’, and ‘Replaceable by alternatives to a biological child’.

Unconsidered and taken for granted. This subcategory consisted of statements showing that even though most informants wanted to have children in the future, some had never reflected on their own reproductive capacity. It also included comments that

revealed perceptions about fertility as something natural. Some referred to a healthy body, while others put confidence in their genetic heritage. In addition, some held the opinion that there is no point in reflecting too much about one’s fertility as it might cause unfounded worries.

My own fertility, nah, I have not thought about that; actually, I have never done that. (w12)

I presume that I can deliver what’s required when it comes to that. (m17)

I have never had any diseases, and my body has always functioned as expected, so, I have no reason to doubt my fertility. (w1)

I don’t think that you should plan and think about it so much, and maybe start worrying about it unnecessarily. (m5).

Table II. Women’s and men’s reflections on fertility and postponed parenthood.

Subcategories	Categories
Unconsidered and taken for granted	Fertility—an imperceptible and retrievable capacity
Unpredictable and different for women and men	
Restorable by medical technology	
Replaceable by alternatives to a biological child	
A consequence of contemporary lifestyles	Postponed parenthood—a rational adaptation to societal changes
A consequence of competing priorities	
A consequence of prevailing discourses about parenthood	

Unpredictable and different for women and men. The second subcategory involved expressions describing fertility as a capacity that could not be taken for granted. It also included comments revealing an awareness that difficulties could arise. For some, this was based on their own experiences, while others referred to relatives or friends. Difficulties related to fertility were foremost described as being associated with age and sex, and especially the reproductive ageing process in women. In relation to this, some mentioned miscarriage, preterm delivery, and having an unhealthy child as risks associated with advanced maternal age,

while others had vague ideas about increased risks. On the other hand, some men accentuated that the perception of an insignificant role of paternal age might be more based on myth rather than on scientific evidence. In addition, the subcategory also included expressions of emotional distress, primarily related to the fear of finally being proved infertile.

When I was young, I took it for granted that everyone who wanted to could have a child, but now I realize that it isn't so easy to have all that work as it should, and when and how you want it to. (m18)

It is mostly my own age that I think about because the older you get, the harder it becomes to get pregnant, and that is the risk one takes when one waits. (w17)

Before one thought that maybe it was just women who bore the risk of having sick children or not having children at all; but in recent times, it has become known that even men's ability to reproduce declines with age, the quality of sperm deteriorates. (m4)
I have thought about my own fertility a lot, and I sometimes think that maybe I have 'missed the boat', in that case, it would be an enormous disappointment. (w19)

Restorable by medical technology. The third subcategory included comments on the perception that most of the difficulties related to reproduction could be solved with medical interventions. Some informants emphasized that even though the process of investigation and treatment of involuntary childlessness might be an expensive, time-consuming, and draining procedure, the possibility to have a biological child was important. Even though many of the informants expressed that all accessible interventions or technologies to 'treat' involuntary childlessness are justified, some of the men said that donor insemination was an exception. In addition, the subcategory also included statements indicating that most of the informants would make use of prenatal diagnosis in case of a future pregnancy.

Anyway, one can do an investigation first and then it depends on what the problem is, but I know that there is good medical help available, even if you end up being a little older. (w3)
All methods that are available to have a biological child are worth a try, I think, then all the assisted ways makes no difference. (m16)
If it should be me that is the missing link and for some reason can't get my partner pregnant, it would still feel very strange if she were

to be fertilized with sperm from some other man because then it's not my child. (m6)
It, maybe, sounds cold but as I feel now, I would have an abortion if I found out that the foetus was not fully healthy, and then try again. (w1)

Replaceable by alternatives to a biological child. The last subcategory consisted of statements revealing that even though many of the women and men initially trusted and would use reproductive technologies, some considered adoption to be the most ethical and gender-equal choice in case of involuntary childlessness. It also included comments indicating that childlessness did not necessarily have to be a tragedy and could be compensated by other qualities in life. Moreover, some expressed that a rewarding professional career, or having an animal, could replace having children.

There are so many children that have no parents, so adoption is the most ethical choice. (w8)

I think right away about adoption, maybe because it would anyway feel more, yes, more equal in some way; and in addition, there is already a child there who can have a better life. (m9)

If it ended up that I couldn't have children, it would be bad but not some huge catastrophe, I can be happy with being a great uncle instead. (m2)

I feel like I have my child substitute in my horse, of course, it doesn't work to compare them, and I know that, but I feel completely satisfied with it. (w21)

Postponed parenthood—a rational adaptation to societal changes

The category 'Postponed parenthood—a rational adaptation to societal changes' consisted of three subcategories: 'A consequence of contemporary lifestyle', 'A consequence of competing priorities', and 'A consequence of prevailing discourses about parenthood'.

A consequence of contemporary lifestyle. The first subcategory consisted of statements describing postponed parenthood as a city phenomenon in that living in a city offers many alternatives to family life. The postponement of childbearing was also perceived as a consequence of postponing the establishment of a stable relationship. In addition, 'a consequence of contemporary lifestyle' also included comments revealing reflections on postponed parenthood as a result of increased individualization in society. Some viewed it as a sign of extended immaturity, others as a

sign of increased egocentricity. Still, others expressed the opposite view, and perceived postponed parenthood as a sign of extended responsibility:

In small towns, you find your place much faster than in larger towns because it is, one can say, just two alternatives: start a family or move. (m15)

Today, you wait longer to have children, but it is really that you also wait longer, for the most part, to find a good partner and many live this life of 'Sex and the City' for a very long time. (w4)

I think that we have become more comfortable and more selfish; there is so much more focus on what I, myself, must do, what I should be and what I should achieve. (w6)

I think, if anything, that one is more caring towards one's child and takes parenthood more seriously; you don't have children only because you want to, but also to be able to have something to offer a child. (m7)

A consequence of competing priorities. The second subcategory included expressions describing postponed parenthood as a result of the wide range of possibilities that young women and men have during early adulthood. A commonly described reason concerned education and the fact that more people today move on to higher education. In particular, women's investment in higher education was perceived as weighty with regard to the timing of parenthood. It also involved comments describing expectations of further learning and striving for experiences and adventures.

You are expected to have so much more than, for example, when my parents started their family in the 70s, if you then had housing and like some sort of security, it was quite enough. (w20)

There are, of course, more women than men that study at universities, more women that graduate, and maybe they feel that childbearing would be an obstacle to their career. (m12)

Today it is expected to not only get an education but also have time to travel, learn a new language, live overseas and much more, and parenthood and the family don't fit so well in the story, that is anyway what I think. (w10)

A consequence of prevailing discourses about parenthood. The third subcategory included comments describing postponed childbearing as a corollary of socially mediated perceptions about the timing of parenthood. In

relation to this, the feature of 'early' parenthood was perceived as unfavourable. It also involved expressions exposing perceptions about 'early' parenthood as a sign of low ambitions. On the other hand, the subcategory also contained statements revealing that changed attitudes related to the timing of parenthood might be on the way.

To have a child before 25 is not exactly something that is encouraged and maybe also not having children after 40 either. (w13)

There is such an incredibly negative view about having a child when you are young, and among my friends there are many that see it as completely abnormal to have a child before 30. (m9)

People have children for many different reasons, but sometimes it feels like that some do it because they cannot think of anything else to do in life. (w8)

Before, I had thought that you had children around age 30, but now, I have so many friends in my age group that have children, so this trend to postpone having children is maybe going to change and that feels kind of good. (m6)

Discussion

This study shows that highly educated, young women and men in contemporary Sweden have many competing priorities when planning and setting goals for their lives; whether and when to have children is only one of them. They describe that societal changes and expectations related to lifestyle and parenthood influence decisions relating to the timing of childbearing. The participants were fairly aware that there are limitations on human reproduction; however, they also believed that fertility problems could be restored or replaced by medical technology or by other alternatives to a biological child.

The finding that fertility may be unconsidered and taken for granted has also been shown in other studies (17,32,33); furthermore, previous research has found that women and men highly value the capability of reproduction (17-20,29,34). However, with efficient and successful contraception together with voluntary postponement of childbearing, this ability may remain 'unused' until ages when the reproductive capacity has started to decline. This can, at least, have two consequences: the link between sexuality and reproduction becomes more vague, and relationships do not necessarily include becoming parents. Family planning services have so far been equal with contraceptive services, with the main focus of helping women to avoid unwanted pregnancies. Not much

focus is placed on male responsibility for reproduction and on concrete planning for a future family with regard to both women and men.

Women's and men's consultations with health care providers (for example, for family planning, testing for sexually transmitted infection, or cervical cancer screening) could be used to convey important pre-conception messages, for example, the age-related decline in human fertility. A potentially useful tool in this respect is a reproductive life plan (RLP), which is a set of goals related to having or not having children. The aim with an RLP is that women and men should reflect upon their reproductive intentions within the overall context of personal life goals and values (35). Preliminary tests of the RLP have shown positive attitudes among patients (36).

Options for enhancing fertility have grown with the development of sophisticated techniques of assisted reproduction. However, conventional *in vitro* fertilization treatments (IVF) are not a guarantee for getting pregnant at advanced ages. The success rate for both natural fertility and assisted reproductive technologies is lower for women in their late 30s and 40s (37). For most couples, third-party conception becomes an option once treatment with their own gametes has failed or if the couple possesses a genetic disorder they do not wish to pass on to their children. Thus far, oocyte donation is the only technique that has had a high success rate in women at advanced ages, which makes the treatment attractive for those who desire to bear a child even if the genetic link between the mother and child is lacking (38).

Internationally, assisted reproductive treatments differ between countries due to tradition and legislation. Additional treatments such as oocyte cryopreservation for storage and use later in life has become a more successful alternative in case of, for example, cancer during a woman's younger years; however, at the moment it is not a common option for the public. In Sweden surrogacy, embryo donation, and assisted reproductive treatment for single women are not yet permitted.

The participants described the postponement of parenthood as a rational adaptation to societal changes. The socially accepted window for having children seems to have narrowed. Before becoming parents, certain life events, such as education, experiences and adventures, and the start of a professional career, should ideally have been accomplished. Early parenthood was considered unfavourable and a sign of low ambition, a finding consistent with an earlier Swedish study (39). This is also in line with recent research showing that Swedish women in their mid-20s regard childbearing as a future project, as it would impede their free and active life since it demands structure, stability, and space (40).

Even if Sweden has generous parental allowances and a well-established child-care system, young women and men seem to consider parenthood as a major personal undertaking, and the responsibility of providing emotional as well as practical/economic support for the child is heavily dependent on the parents. To postpone parenthood until one's educational goals are fulfilled and a reasonable economy is secured, therefore, becomes crucial, especially since the parental allowance in Sweden is based on the level of income before pregnancy.

Strengths and limitations

We were able to recruit as many as 40 participants, which resulted in rich data. However, since the participants knew the topic for discussion beforehand, it is possible that those who were not planning to have children were less motivated to participate. The interviewers were midwives with a clear pre-understanding of reproductive health issues, which could represent a limitation but also a strength. It was obvious that the participants appreciated the midwifery expertise and took the opportunity to discuss reproductive health issues with the interviewers after finalization of the formal interview. The purpose with qualitative studies is to gain a deeper understanding of people's lived experiences, so striving for generalization is neither desirable nor possible. However, we believe that our findings could be transferred to similar populations and contexts, bearing in mind that only highly educated women and men were invited to participate. To ensure credibility, we described the entire process in detail and inserted quotations to make it possible to judge the credibility of our findings. Dependability was created by recruiting women and men of different ages, with different occupations and civil status, and by using the same interview guide. To establish confirmability, the researchers continuously discussed the interpretation of the data, until consensus was reached.

Conclusion

This study indicates that highly educated young women and men in contemporary Sweden have many competing priorities when planning and setting goals for their lives, and whether or not to have children as well as when to have them is an example of this. They describe fertility as an imperceptible and retrievable capacity, and, in case of problems, they believe fertility could be restored or replaced by medical technology or by alternatives to a biological child. They also describe postponed parenthood as a rational adaptation to societal changes, including socially mediated perceptions about 'early' childbearing as unfavourable. These findings suggest

that increased information about the limitations of human reproduction is needed, but also that societal arrangements making it possible to have children at younger ages are of utmost importance.

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