



[www.sciencedirect.com](http://www.sciencedirect.com)  
[www.rbmsociety.com](http://www.rbmsociety.com)



## ARTICLE

# Attitudes towards family formation among men attending fertility counselling

R. Sylvest<sup>a,\*</sup>, E. Koert<sup>b</sup>, K. Birch Petersen<sup>c</sup>, G.M.H. Mallng<sup>d</sup>, F. Hald<sup>e</sup>,  
A. Nyboe Andersen<sup>b</sup>, L. Schmidt<sup>d</sup>

<sup>a</sup> Fertility Clinic, Department of Obstetrics and Gynaecology, Hvidovre Hospital, University Hospital of Copenhagen, 2650 Hvidovre, Denmark; <sup>b</sup> Fertility Clinic, University Hospital of Copenhagen, Rigshospitalet, 2100 Copenhagen Ø, Denmark; <sup>c</sup> Fertility Clinic, University Hospital of Zealand, 4300 Holbæk, Denmark; <sup>d</sup> Department of Public Health, University of Copenhagen, 1014 Copenhagen K, Denmark; <sup>e</sup> Fertility Clinic, Region Hospital Horsens, 8700, Horsens, Denmark

\* Corresponding author. E-mail address: [Randi-lykke.sylvest@regionh.dk](mailto:Randi-lykke.sylvest@regionh.dk) (R. Sylvest).



Randi Sylvest graduated as a Master in Public Health from Copenhagen University, Denmark. She is a PhD student at the Fertility Clinic of Hvidovre Hospital, Denmark. Her research field includes qualitative research focusing on men, family formation and fertility awareness. She has conducted over 100 interviews.

**Abstract** Men and women are increasingly postponing childbearing until an age where fertility has decreased, meaning that they might have difficulties in achieving their desired family size. This study explored childless men's attitudes towards family formation. Data were collected through semi-structured qualitative interviews with 21 men attending the Fertility Assessment and Counselling Clinic in Copenhagen or Horsens, Denmark. Data were analysed using content analysis. The men envisioned a nuclear family with their own biological children, but they experienced doubts and ambivalence about parenthood and feeling 'ready'. Their lack of readiness was linked to their awareness of the sacrifices and costs involved with parenthood, and their belief that they could safely delay parenthood. The men did not consider that they may be unable to have their own biological children. This study highlights the importance of considering men's attitudes and preferences towards family formation when understanding couples' decision-making. Contrary to common understanding, the findings show that men are as concerned with the planning and timing of parenthood as women, but their knowledge of the age-related decline in fertility is poor. Men need to gain more awareness of the limitations of fertility and the impact of female and male age on the ability to achieve parenthood aspirations.

© 2018 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

**KEYWORDS:** childbearing, delayed childbearing, fertility awareness, male, qualitative research

<https://doi.org/10.1016/j.rbms.2018.06.001>

2405-6618 © 2018 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

## Introduction

In many high-income countries, men and women are increasingly postponing childbearing until an age where fertility has decreased, meaning that they might have difficulty in achieving their desired family size despite access to fertility treatment (Joffe et al., 2009; Leridon, 2004; Mills et al., 2011). The postponement of parenthood raises questions about men's and women's reproductive intentions and choices (Lampic et al., 2006; Svanberg et al., 2006; Thompson and Lee, 2011).

The risks associated with postponing childbearing include age-related decline of female fecundity and impaired success rates of assisted reproductive technologies (Malchau et al., 2017). Increasing paternal age (over 35 years) is associated with lower fertility, an increase in pregnancy-associated complications (higher miscarriage rate, pre-eclampsia and preterm births) and an increase in adverse outcome in the offspring (Sartorius and Nieschlag, 2010).

Previous studies of attitudes towards family formation among men and women have included students (Lampic et al., 2006; Peterson et al., 2012; Svanberg et al., 2006; Virtala et al., 2011), women of higher reproductive age (Petersen et al., 2015), fertility patients (Schytt et al., 2014) and population-based samples (Daniluk and Koert, 2013; Hammarberg et al., 2013; Tough et al., 2007; Vassard et al., 2016).

Several studies indicate that there is a low level of fertility awareness among men and women (Benzies et al., 2006; Hammarberg et al., 2013; Heywood et al., 2016; Lampic et al., 2006; Peterson et al., 2012). For example, men have been found to be unaware of the impact of male age on fertility (Daumler et al., 2016; Hammarberg et al., 2017a) and to lack knowledge of the impact of modifiable risk factors that impact fertility (e.g. smoking and obesity; Daumler et al., 2016; Hammarberg et al., 2013). They also overestimate the age when female fertility declines (Chan et al., 2015; Peterson et al., 2012; Sabarre et al., 2013; Virtala et al., 2011) and overestimate the chance of having a child with assisted reproduction (Chan et al., 2015; Daniluk and Koert, 2013; Hammarberg et al., 2017a; Peterson et al., 2012; Sabarre et al., 2013; Sorensen et al., 2016; Sylvest et al., 2014).

Research shows that men's attitudes towards family formation influence couples' childbearing decisions (Dudgeon and Inhorn, 2004). As reasons for postponing parenthood, men most often mention difficulties in finding a suitable partner with whom they want to have children (Eriksson et al., 2012; Svanberg et al., 2006). Also, men frequently mention important prerequisites to parenthood, such as completing their education and securing a stable job, housing and finances (Hammarberg et al., 2017b; Peterson et al., 2012; Roberts et al., 2011; Svanberg et al., 2006).

To improve understanding of the role of men in childbearing decisions, the purpose of this qualitative study was to explore the attitudes of childless heterosexual men towards family formation.

## Materials and methods

### Setting

Denmark has high gender equality and female participation in the labour market. Some employers provide men with

3 months parental leave, but few men take advantage of this option. The mean age of men who became fathers in Denmark in 2016 was 33.4 years. For first-time fathers, the mean age was 31.2 years, and 20.1% of all men were childless at 50 years of age. The current age of first-time mothers is 29.2 years. The number of cycles of assisted reproduction per capita in Denmark is one of the highest in the world (around 9% of all children are born after assisted reproduction). Increasing numbers of single women are using sperm donors (Statistics Denmark, 2017).

Fertility awareness is now firmly on the political agenda in Denmark, with various campaigns addressing the nation's need for more babies. The Fertility Assessment and Counselling (FAC) Clinic in Rigshospitalet, Copenhagen, Denmark was established in August 2011 in order to prevent infertility and reduce the need for fertility treatment. It operates as an independent clinic and uses the hospital's fertility clinic facilities and professional expertise (Hvidman et al., 2015). The FAC Clinic offers assessment and counselling to men and women with no known fertility problems regarding their present and future fertility potential. The concept of the FAC Clinic has been described elsewhere and is briefly introduced here (Petersen et al., 2017; Hvidman et al., 2015). Following the opening of the first clinic in Denmark's capital city, Copenhagen, a second clinic was opened in Horsens, Denmark, a more regional city. The clinics are state funded and offer consultations free of charge. Men and women do not need a referral but can schedule an appointment themselves. Clients complete a questionnaire including items regarding sociodemographic background, reproductive and medical history, lifestyle and behavioural exposures. Women undergo pelvic sonography and measurement of Anti-Müllerian hormone, and men undergo semen analysis. Since opening in 2011, 2000 women and 700 men have attended the FAC Clinic.

### Study population and sampling

Men eligible for the study were those who had booked a consultation together with their female partner at the FAC Clinic in 2015. Invitations to participate, together with information about the study, were sent to them by e-mail until data saturation. In total, 24 men were invited, and 21 agreed to be interviewed before their consultation at the clinic. The men were interviewed separately from their partner to allow in-depth exploration of the sensitive topic of attitudes towards family formation. The women were also interviewed separately: their interviews have been described in detail elsewhere (Sylvest et al., 2016).

### Data collection

A semi-structured interview guide was developed with open-ended questions focusing on family formation intentions and attitudes. The interview questions were informed by previous studies on family formation attitudes and fertility awareness (Eriksson et al., 2012; Lampic et al., 2006; Mortensen et al., 2012; Schytt et al., 2014). The main question was: 'What are your thoughts about forming a family?'

**Table 1** Example of analysis with code, category, subtheme and main theme.

Code	Category	Subtheme	Main theme
Wish for children	Becoming a father, becoming a family	Preferences	Conflicting timelines

Interviews were conducted by the first author (RS) according to Kvale's guidelines (Kvale, 1996). Depending on the participant's preferences, the interview took place at the FAC Clinic or in the study participant's own home. The interviews were audio-taped and transcribed verbatim. Transcripts were anonymized and pseudonyms were assigned. The duration of the interviews varied from 15 to 60 min, with a mean duration of 26 min.

### Analysis

The transcripts were analysed using qualitative content analysis (Graneheim and Lundman, 2004). The transcripts were analysed into meaning units, condensed meaning units, codes, categories, subthemes and a main theme. The analysis was conducted in four steps: (i) review of the interviews to obtain a sense of the content; (ii) dividing the interviews into meaning units, where meaning units are defined as words, sentences or paragraphs in the text, where the content relates to each other and the aim of the study; (iii) condensing the meaning units and labelling with codes, which were abstracted and compared based on similarities and differences into categories and later into subthemes; and (iv) analysing and unifying subthemes into

one main theme. Examples of the analytic process with code, category, subtheme and main theme are given in Table 1. Quotations were chosen to represent the range of views for each subtheme and category.

The process of analysis was discussed by all authors to strengthen trustworthiness. In order to ensure the trustworthiness of the findings, the guidelines of Lincoln and Guba (2000) and the consolidated criteria for reporting qualitative research (COREQ) (Tong et al., 2007) were followed. Direct quotes are marked in the Results with "...", and the authors' analytic terms are marked with '...'.

### Ethics

This study followed the principles of the Declaration of Helsinki II for medical research. The Danish Data Protection Agency approved the study (SUND-2017-45). Interview studies do not require permission from a scientific ethics committee according to Danish law. All participants provided written informed consent. The interviews were anonymized and identifying data were retained in a separate document that was only available to the first author.

### Results

General information on the participants' sociodemographic and relationship characteristics is presented in Table 2. The average age of the participants was 34 (range 21–46) years and the average age of their female partners was 33 (range 21–41) years. All were childless, and 42% were currently trying to conceive with their partner. Fifty-seven per cent had received at least 4 years of education or

**Table 2** Sociodemographic and relationship characteristics of the study population.

Name	Age (years)	Age of partner (years)	Vocational training <sup>a</sup>	Duration of current relationship (years)	Currently trying to conceive	Setting (Horsens/Copenhagen)
Adam	46	34	Medium	12	No	Copenhagen
Brian	37	39	Medium	2	No	Copenhagen
Carl	26	26	Long	2.5	Yes, 6 months	Copenhagen
Daniel	29	29	Long	9	No	Copenhagen
Eric	28	28	Long	8	No	Copenhagen
Frederic	31	31	Long	2	No	Copenhagen
George	29	29	Long	2	Yes, 10 months	Copenhagen
Herman	32	33	Long	10	Yes, 1 year	Horsens
Ian	30	35	Medium	4	No	Copenhagen
Jasper	42	41	Long	6	Yes, 2 years	Horsens
Kenn	27	27	Long	3	No	Horsens
Lawrence	38	38	Long	8	No	Copenhagen
Matthew	32	29	Medium	0.5	No	Horsens
Norbert	36	36	Long	5	No	Copenhagen
Oscar	21	21	Medium	1	Yes, 3 months	Horsens
Paul	40	34	Medium	5	Yes, 7 months	Copenhagen
Robert	43	35	Medium	5	No	Horsens
Steven	38	37	Long	4	Yes, 4 months	Copenhagen
Trevor	36	36	Short	1.5	Yes, 6 months	Horsens
Ulrich	32	36	Long	2	Yes, 4 months	Copenhagen
Vernon	40	37	Short	1	No	Copenhagen

<sup>a</sup> Long, at least 4 years of vocational training; medium, 2–3 years of vocational training; short: up to 1 year of vocational training.

vocational training. Seven men were from Horsens and 14 were from Copenhagen. There were no differences in attitudes towards family formation based on setting or vocational training.

One main theme was selected that reflected men's attitudes towards family formation: 'conflicting timelines'. This contained two subthemes: 'preferences' and 'pressures'. 'Preferences' included two categories: 'becoming a father, becoming a family' and 'Plan A'. Pressures included: 'conflicted about the ticking clock' and 'ready or not?' (Fig. 1).

### Conflicting timelines

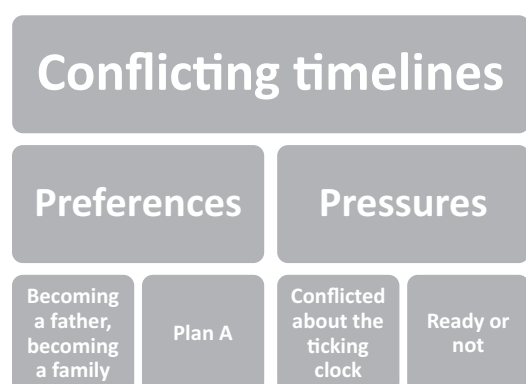
The main theme was 'conflicting timelines'. The men's attitudes towards family formation were influenced by competing and conflicting timelines (i.e. their timeline vs their partner's and a biological timeline vs a psychological/emotional timeline).

#### Preferences

The first subtheme reflected men's preferences, which was to have a traditional, nuclear family with biological children. The subtheme included two categories: 'becoming a father, becoming a family' and 'Plan A', described in more detail below.

*Becoming a father, becoming a family.* The men expressed their preference for a nuclear family with two children. They wanted to start a family when they were between the ages of 30 and 40 years. A few of the men said that they would be open to having children into their 50s and 60s. The men's reasons for becoming a father and having children included a greater sense of purpose in life, to complete their relationship and create a family, and to keep feeling young:

"The love that exists between a child and its parents. Symbolically one gets – K and I become more a family, because we share something" (Frederic, 31).



**Fig. 1** Conflicting timelines – model for analysis. This figure displays the model for analysis with the main theme (conflicting timelines), subthemes (preferences; pressures) and categories (becoming a father, becoming a family; Plan A; conflicted about the ticking clock; ready or not?). Fig. 1

Men generally spoke positively about having a family. For instance, one man said: "It gives a great joy in one's life bringing a child into the world" (Eric, 28), and described it as an important life goal or something that they always assumed would happen at some point in their lives:

"It's always been like: "Of course I'll have children at some point, and I'm looking forward to this, and I would like to do this". It has just been a wide concept not a concrete" (Herman, 32).

They expressed their desire to help, guide and nurture a new generation: "I like the role of being the one that guides and helps a new being travel the road further into the future" (Robert, 43). One of the men even spoke of starting to feel "broody" (George, 29).

They valued the fatherhood role and took these responsibilities seriously. In particular, they believed that they should start a family at a time when they are able to provide their children with consistent presence, love and understanding.

*Plan A.* The men had not considered the possibility that they might not be able to have biological children. They were convinced that they could become fathers without any problems. In this way, they only wanted to think about 'Plan A', their preferred plan. They did not want to think about any 'back up plans' or 'Plan B'.

When asked what they would do if they could not conceive their own biological child, the men were more open to adoption than to using donor sperm. They expressed uncertainty and insecurity about using a donor because to them it felt like there would be "another man standing there". To them, the donor would be the true 'father' and they felt somewhat threatened and uncomfortable with the possibility:

"Back to some advanced philosophical level – that it was another father that actually was the father of the child and was still together with my wife. I'm well aware of the fact that he's not physically actually here, but it still feels that way" (Daniel, 29).

Adoption was seen as more 'fair' and a way to make certain that both partners felt connected to the child in the "worst case scenario" (Eric, 28).

"That if it isn't our own baby, well, then it might just as well be an adopted one. It would be a little bit strange, if my girlfriend was the mother, but there was another father" (Brian, 37).

Despite possibly considering adoption if there was no other option, ideally, the men wanted to have a 'mini-me', a biological child who looked like them.

"A son should look like you" (Ian, 30).

Blood ties were valued and important. They wanted a child to continue the family lineage with their shared blood and biology. To them, this is what constituted "a natural family" (Eric, 28), and a more acceptable one.

#### Pressures

The second subtheme included pressures. The men felt pressured by the ticking biological clock and their degree of readiness for having a family. The subtheme included two



categories: 'conflicted about the ticking clock' and 'ready or not?', described in more detail below.

*Conflicted about the ticking clock.* The men described feeling conflicted about when was the 'right time' to have children. They expressed a conflict between a desire to have a child while they are still young vs a desire to enjoy their freedom for a few more years before becoming parents.

On one hand, it was important for them to start a family when they have enough energy to enjoy time with their future children. In particular, they spoke of a desire to become a parent when they could be physically active and play sports such as football with their children. They believed that having children when they are younger would also allow them the opportunity to enjoy their retirement, and allow for a second youth with additional freedom after children have 'flown from the nest'.

On the other hand, the men wanted to remain childless for a few years to enjoy their life as it was right now; when they have time for their work, partner, friends, etc.

This postponement allowed for spontaneity and freedom, and an opportunity to focus on themselves that they believed was not possible with children. In this way, they viewed parenthood as involving personal sacrifice which made them feel somewhat ambivalent about becoming a parent:

"We enjoy the life that we currently have, and the possibilities that are inherent in this; we can go on long vacations, go diving and go out to restaurants in the evenings" (Frederic, 31).

They also described how they did not feel ready or responsible enough to become a parent.

"I have been a crazy teenager until I was about 38 or so, so I was much too irresponsible for that. I didn't feel like I was ready to stop running around and acting like a teenager; riding a skateboard, going out and travelling, going into town and that sort of thing" (Vernon, 40).

Although most of the men wanted to postpone parenthood for a couple more years, the majority believed that they would have children within the next 5 years. This was not necessarily out of a sense that it would be the 'right time' to have children, but due to the pressure of time passing.

"I feel pressured to make a decision. Or perhaps what I feel, is that we don't have all the time in the world, so in that way, there is pressure to make a decision now, as I can't keep procrastinating a year to decide if I want a child or not" (Brian, 37).

The pressure was also due to their partner's ticking biological clock. This left little time for the men to determine when and if they wanted to have children:

"The biggest factored risk, also relative to the two of us, is definitely my girlfriend's biological clock" (Lawrence, 38).

In contrast, some of the men who were trying to conceive with their partner were a bit impatient. They wanted to have a child now. A few of the men said that the ideal time

to have children had already passed, and that they would have liked to have had children earlier in life:

"Looked at retrospectively, I would rather have been in my mid-20s when I had kids" (Robert, 43).

Some felt envious of younger parents:

"Envious, when I see others my age, where they already have grown-up children". (Adam, 46)

Men believed that the right time to have children was when they had found the right partner, and had a stable job, a good financial situation and a house or apartment in a child-friendly area.

### Ready or not?

Although the men saw the benefit of becoming a parent at some point, many shared doubts about having children because they felt a sense of ambivalence about parenthood and/or did not feel 'ready' to do so. They wanted to make sure that they were making the right choice about children; more specifically, to have them or not and when to have them. Feeling 'ready' was an important aspect of this decision.

While a small proportion of the participants who had started trying to conceive felt 'ready' and wanted to be a father now, the remainder spoke about their lack of readiness and ambivalence about parenthood. Some of the men wondered if they should postpone parenthood until they felt ready. These men also worried that they might never feel ready. Others wondered if expecting to feel completely ready for parenthood was unrealistic and perhaps they might never feel that way, so they might have to 'jump' before they felt ready:

"I don't think that such a thing as an ideal time exists. I think it is more about setting a deadline and saying: well, now's the time" (Robert, 43).

Some wondered if it would be futile to postpone parenthood until they felt ready because maybe only women actually feel ready to become parents.

Several of the men described feeling pressured by their partners to feel ready because their partners were ready and their biological clock was ticking:

"I can feel that there are periods where her desires are very strong, and these desires are very clearly understood, so in that way I can definitely feel pressured" (Matthew, 32).

This discrepancy in readiness often caused problems in their relationship with their partner. In this way, it felt like childbearing or parenthood planning was on their partner's timeline and readiness, not theirs:

"What she did felt like an assault on my person, but looked at in another way, it was as if I was holding her back from achieving something that she wanted. This has been the source of some wild and crazy arguments and discussions" (Paul, 40).

As an example, 19 of the 21 participants attended the FAC Clinic for fertility assessment and counselling on the

initiative of their partner. The men presented as more hesitant to attend and uncertain of what to expect from the counselling.

Furthering their sense of ambivalence or lack of readiness, the men spoke of their awareness of the huge, irrevocable responsibility of parenthood:

"I really have the opportunity to make a choice, and this choice is the biggest one that you make in your life. So this is really, like, a taxing decision" (Norbert, 36).

The men focused on the consequences or sacrifices involved in having children, in particular the lack of time, flexibility and freedom:

"You're stuck – you can't... you lose your freedom" (Vernon, 40).

The ability to pursue career opportunities was included within the potential losses of freedom related to parenthood. For that reason, the men wanted to have children at a time that worked well for their careers:

"Both of us are very career-oriented, and we'd like to get it arranged so that it fits into this" (Kenn, 27).

The men indicated that they did not experience any pressure or expectations to have children from their friends. The majority of the pressure to feel 'ready' came from their partner. One of the men said that there were more social expectations and pressure to have children directed towards women in comparison with men, and that he felt more pressure from his partner.

## Discussion

The men in this study anticipated a nuclear family and valued the parenthood role. All the men were currently childless and expressed a discrepancy between their ideal and expected age of first birth, wherein their ideal age for fatherhood was younger than the expected age. This was also found in a Canadian study of 599 childless males of reproductive age (Daniluk and Koert, 2013). This suggests some ambiguity and discrepancy in men's attitudes and preferences towards family building. Lack of accurate information and knowledge about fertility, including the male fertility lifespan, may well be contributing to men's assumptions that they can wait several years until they feel ready before having children. Given that timing of childbearing is a joint decision, both men and women need to be aware of the potential risks of postponing family formation, including the medical, social and emotional consequences and potential for unintentional childlessness (Schmidt et al., 2012).

Previously, the authors undertook a study of 20 women attending the FAC Clinic (Sylvest et al., 2016), and it is therefore possible to make some comparisons between the two genders. Both men and women valued biological parenthood and expressed a desire for a 'mini-me', bringing a sense of purpose as individuals and within their relationship. Similarly, Hendriks et al. (2017) found that 98% of fertility patients favoured genetic over non-genetic parenthood for both their partner and themselves. Women were

worried that they might not be able to realize their parenthood goals due to fertility problems. In contrast, men were focused on their 'Plan A' (i.e. nuclear family), and had not considered that they might not be able to achieve their parenthood goals. When asked whether they would consider use of donor sperm or adoption if they were unable to conceive with their partner, it was apparent that men had never given this possibility much thought, and were reluctant to do so. This discrepancy may well be what is contributing to men being 'behind' their partners in terms of readiness for parenthood. Men may not face the same biological 'deadline' as women, and falsely believe that they have more time to have children than they actually do (Daniluk and Koert, 2013; Schmidt et al., 2012). Men are more concerned about their partner's declining fertility than their own, suggesting that existing fertility education campaigns about the risk of infertility have been more successful in reaching women than men. There have been insufficient campaigns addressing men directly. Interestingly, in this study, 19 of 21 men had attended the FAC Clinic on the initiation of their female partner, providing more evidence that women are more concerned about the passing of time and risk of infertility than men.

Consistent with previous literature, men and women expressed similar ideals about what they believed should be in place before starting a family (e.g. a suitable partner, to have finished school, established their career, etc.) (Hammarberg et al., 2017b; Roberts et al., 2011; Schytt et al., 2014). As in earlier studies, men and women both wanted to have children at the 'right' time (e.g. education first, then children) (Eriksson et al., 2012) and when they felt ready. The present findings underscore the reality that this desire is often in conflict with other life goals or the biological clock. Both men and women were aware of the ticking clock, but this clock represented different things. For men, the ticking clock related to choosing the 'right' timing for having children – allowing them a few more years of freedom but ensuring that they would have the energy to be an active father and could enjoy their retirement or 'second youth'. This is consistent with previous research which suggests that there is a tendency among young men to want children – but 'just not right now' (Sylvest et al., 2014). It also suggests that men are as concerned with the planning and timing of parenthood as women (Benzies et al., 2006). In contrast, the women from the FAC Clinic were less concerned with ideal timelines and were more aware of their ticking biological clock in relation to feeling broody and their declining fertility. This was experienced less as a choice about timing and more as something forcing them to have children soon (Sylvest et al., 2016).

Men and women from the FAC Clinic expressed feelings of frustration, but for different reasons. Women felt frustrated that their male partners were holding them back from moving forwards with having a family because they felt more 'ready' than their male partner; some of the men felt frustrated that the couple's childbearing decisions were perceived to be according to their partner's timeline (e.g. readiness, biological clock) rather than their own preferences. In both examples, men and women experienced a lack of control due to their partner's discrepant degree of readiness. The fact that men and women may experience different childbearing timelines and degrees of readiness has

been posited in the literature (Sylvest et al., 2016). The present findings provide important insight into the reported experience behind this phenomenon, which often caused personal and relational discomfort, conflict, helplessness and misunderstanding. However, Rijken and Knijn (2009) found that disagreement between partners does not necessarily lead to discussion. It also suggests that planning and control regarding family formation is important to both genders – not just women as previously considered (Benzies et al., 2006).

Despite wanting a nuclear family, men and women felt conflicted about parenthood given the sacrifices involved in taking on this new life role. This is consistent with a qualitative study of highly educated women and men in Sweden (Eriksson et al., 2012). That said, men and women spoke of the sacrifice in different ways. Men felt that having children would mean sacrificing their freedom, whereas women believed that having children meant that they would be 'deselecting' other priorities such as their career progress (Sylvest et al., 2016). This may be a product of the study sample as the majority of female subjects were well educated and had received at least 3 years of vocational training, meaning that their education and career were of importance to them. However, given that the men were also well educated, it is interesting that they focused on the loss of freedom more generally rather than sacrifices specific to their career. Previous research has shown that parenthood is understood as requiring a loss of autonomy and ability to pursue one's own individual desires (Schytt et al., 2014). Perhaps an awareness of the sacrifices involved explains the feelings of ambivalence that men and women expressed in relation to parenthood.

Whilst the men and women from the FAC Clinic felt social pressure to have children, the source and intensity of pressure were experienced differently. In the authors' studies, consistent with the Swedish study by Eriksson et al. (2012), women felt more social pressure than men. Men experienced more pressure from their partners than their friends. Although there have been shifts in expectations about the role of men in family building and parental responsibilities, these findings suggest that stereotyped perceptions about femininity and motherhood continue to prevail, and women experience the majority of social pressure about having children. Interestingly, the authors' findings suggest that women, in turn, direct this pressure towards their male partners. This finding confirms that social pressure impacts attitudes towards family formation, although the authors' findings also suggest that social pressure occurs within the couple (e.g. women to men), and not only within the individual and society (e.g. normalization of motherhood) and across generations (e.g. parent to adult child).

Despite recruiting from two different settings, the findings showed consistency rather than differences in men's attitudes towards family formation.

### Strengths and limitations

Lincoln and Guba's (2000) criteria and the COREQ standards (Tong et al., 2007) were used to ensure trustworthiness of the analysis and findings. Credibility was ensured through

recruitment until data saturation was met, immersion in the interview transcripts and discussion of the analysis over several time points amongst the study authors. Information about the research setting, the men who participated and the analysis process was provided so transferability of the findings can be determined. Dependability of the findings was ensured through documenting the analysis process in an audit trail. Confirmability was addressed by including all study authors in the analytic process to reduce the likelihood of research bias and selectivity. The participants represent a select group of heterosexual men who attended the FAC Clinic, which limits the ability to generalize the findings to single or homosexual men, or to men who have not attended a consultation. That said, the study highlights attitudes towards family formation that may also be salient to other men of childbearing age that are worthy of future examination in a community-based sample.

### Conclusion

Heterosexual men generally envisioned a nuclear family but experienced doubts about having children because they felt a sense of ambivalence about parenthood and/or did not feel 'ready' to do so. Their readiness was linked to their awareness that there are sacrifices and costs involved in parenthood, and their belief that they could safely delay parenthood. The majority of the pressure to feel 'ready' came from their partner. The men did not consider that they may not be able to have their own biological children. They were convinced that they would have a child without any problems. The findings, in contrast with the authors' previous study on women (Sylvest et al., 2016), demonstrate that men and women have similar attitudes towards family formation, but some differences exist that may serve as barriers to achieving parenthood goals, and cause disruption and misunderstanding within the couple. This research underscores the importance of considering men's attitudes and preferences when understanding couples' decision-making processes given their important role in the process. Therefore, men need more awareness about the limitations of fertility and the impact of female and male age on the ability to achieve parenthood aspirations.

### Key message

Men in the study were concerned with the planning and timing of parenthood and dreamt of a nuclear family. The findings highlight the role of men in decision-making, and underscore the need for men to be informed about fertility and the impact of female and male age on the ability to achieve parenthood.

### Acknowledgements

We wish to thank the 21 men who participated in this study. EK is supported by the ReproUnion Collaboration. The Fertility and Assessment Clinic, Rigshospitalet was established in 2011 as part of the ReproSund Collaboration followed by the ReproHigh and ReproUnion Collaborations, which were co-financed by EU Regional Funding. This clinic was also funded by the Capital Region Research Fund, Denmark. RS received a PhD grant from Rosa Ebba Foundation

and The Danish Health Insurance Fund (J.nr. 15-B-0095). EK was funded by an ESHRE Travel/Training Fellowship in Collaboration with ReproUnion.

## References

- Benzies, K., Tough, S., Tofflemire, K., Frick, C., Faber, A., Newburn-Cook, C., 2006. Factors influencing women's decisions about timing of motherhood. *J. Obstet. Gynecol. Neonatal. Nurs.* 35, 625–633. <https://doi.org/10.1111/j.1552-6909.2006.00079.x>.
- Chan, C.H., Chan, T.H., Peterson, B.D., Lampic, C., Tam, M.Y., 2015. Intentions and attitudes towards parenthood and fertility awareness among Chinese university students in Hong Kong: a comparison with western samples. *Hum. Reprod.* 30, 364–372. <https://doi.org/10.1093/humrep/deu324>.
- Daniluk, J.C., Koert, E., 2013. The other side of the fertility coin: A comparison of childless men's and women's knowledge of fertility and assisted reproductive technology. *Fertil. Steril.* 99, 839–846. <https://doi.org/10.1016/j.fertnstert.2012.10.033>.
- Daumler, D., Chan, P., Lo, K.C., Takefman, J., Zekowitz, P., 2016. Men's knowledge of their own fertility: a population-based survey examining the awareness of factors that are associated with male infertility. *Hum. Reprod.* 31, 2781–2790. <https://doi.org/10.1093/humrep/dew265>.
- Dudgeon, M.R., Inhorn, M.C., 2004. Men's influences on women's reproductive health: medical anthropological perspectives. *Soc. Sci. Med.* 59, 1379–1395. <https://doi.org/10.1016/j.socscimed.2003.11.035>.
- Eriksson, C., Larsson, M., Tydén, T., 2012. Reflections on having children in the future – interviews with highly educated women and men without children. *Ups. J. Med. Sci.* 117, 328–335. <https://doi.org/10.3109/03009734.2012.654862>.
- Graneheim, U.H., Lundman, B., 2004. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ. Today* 24, 105–112. <https://doi.org/10.1016/j.nedt.2003.10.001>.
- Hammarberg, K., Setter, T., Norman, R.J., Holden, C.A., Michelmore, J., Johnson, L., 2013. Knowledge about factors that influence fertility among Australians of reproductive age: A population-based survey. *Fertil. Steril.* 99, 502–507. <https://doi.org/10.1016/j.fertnstert.2012.10.031>.
- Hammarberg, K., Zosel, R., Comoy, C., Robertson, S., Holden, C., Deeks, M., Johnson, L., 2017a. Fertility related knowledge and information seeking behaviour among people of reproductive age: a qualitative study. *Hum. Fertil.* 20, 88–95. <https://doi.org/10.1080/14647273.2016.1245447>.
- Hammarberg, K., Collins, V., Holden, C., Young, K., McLachlan, R., 2017b. Men's knowledge, attitudes and behaviours relating to fertility. *Hum. Reprod. Update* 458–480.
- Hendriks, S., Peeraer, K., Bos, H., Repping, S., Dancet, E.A.F., 2017. The importance of genetic parenthood for infertile men and women. *Hum. Reprod.* 39, 2076–2087. <https://doi.org/10.1093/humrep/dex256>.
- Heywood, W., Pitts, M.K., Patrick, K., Mitchell, A., 2016. Fertility knowledge and intentions to have children in a national study of Australian secondary school students. *Aust. N. Z. J. Public Health* 40, 462–467. <https://doi.org/10.1111/1753-6405.12562>.
- Hvidman, H.W., Petersen, K.B., Larsen, E.C., Macklon, K.T., Pinborg, A., Andersen, A.N., 2015. Individual fertility assessment and pro-fertility counselling; should this be offered to women and men of reproductive age? *Hum. Reprod.* 30, 9–15. <https://doi.org/10.1093/humrep/deu305>.
- Joffe, M., Key, J., Best, N., Jensen, T.K., Keiding, N., 2009. The role of biological fertility in predicting family size. *Hum. Reprod.* 24, 1999–2006. <https://doi.org/10.1093/humrep/dep087>.
- Kvale, S., 1996. *An introduction to qualitative research interviewing*. Sage Publications, London UK.
- Lampic, C., Svanberg, A.S., Karlstrom, P., Tydén, T., 2006. Fertility awareness, intentions concerning childbearing, and attitudes towards parenthood among female and male academics. *Hum. Reprod.* 21, 558–564. <https://doi.org/10.1093/humrep/dei367>.
- Leridon, H., 2004. Can assisted reproduction technology compensate for the natural decline in fertility with age? A model assessment. *Hum. Reprod.* 19, 1548–1553. <https://doi.org/10.1093/humrep/deh304>.
- Lincoln, Y.S., Guba, E.G., 2000. *Paradigmatic controversies, contradictions, and emerging confluences*. In: Denzin, N.K., Lincoln, Y.S. (Eds.), *The handbook of qualitative research*, 2nd ed. Sage, Beverly Hills, California, pp. 163–188.
- Malchau, S.S., Henningsen, A.A., Loft, A., Rasmussen, S., Forman, J., Nyboe Andersen, A., Pinborg, A., 2017. The long-term prognosis for live birth in couples initiating fertility treatments. *Hum. Reprod.* 32, 1439–1449. <https://doi.org/10.1093/humrep/dex096>.
- Mills, M., Rindfuss, R.R., McDonald, P., te Velde, E., 2011. Why do people postpone parenthood? Reasons and social policy incentives. *Hum. Reprod. Update* 17, 848–860. <https://doi.org/10.1093/humupd/dmr026>.
- Mortensen, L.L., Hegaard, H.K., Nyboe Andersen, A., Bentzen, J.G., 2012. Attitudes towards motherhood and fertility awareness among 20-40-year-old female healthcare professionals. *Eur J Contracept Reprod Health Care* 17, 468–481. <https://doi.org/10.3109/13625187.2012.728015>.
- Petersen, K.B., Hvidman, H.W., Sylvest, R., Pinborg, A., Larsen, E.C., Macklon, K.T., Andersen, A.N., Schmidt, L., 2015. Family intentions and personal considerations on postponing childbearing in childless cohabiting and single women aged 35–43 seeking fertility assessment and counselling. *Hum. Reprod.* 30, 2563–2574.
- Petersen, K.B., Maltesen, T., Forman, J.L., Sylvest, R., Pinborg, A., Larsen, E.C., Macklon, K.T., Nielsen, H.S., Hvidman, H.W., Nyboe, Andersen A., 2017. The Fertility Assessment and Counseling Clinic - does the concept work? A prospective 2-year follow-up study of 519 women. *Acta Obstet. Gynecol. Scand.* 96, 313–325.
- Peterson, B.D., Pirritano, M., Tucker, L., Lampic, C., 2012. Fertility awareness and parenting attitudes among American male and female undergraduate university students. *Hum. Reprod.* 27, 1375–1382. <https://doi.org/10.1093/humrep/des011>.
- Rijken, A.J., Knijn, T., 2009. Couples' decisions to have a first child: Comparing pathways to early and late parenthood. *Demogr. Res.* 21, 765–802. <https://doi.org/10.4054/DemRes.2009.21.26>.
- Roberts, E., Metcalfe, A., Jack, M., Tough, S.C., 2011. Factors that influence the childbearing intentions of Canadian men. *Hum. Reprod.* 26, 1202–1208. <https://doi.org/10.1093/humrep/der007>.
- Sabarre, K.A., Khan, Z., Whitten, A.N., Remes, O., Phillips, K.P., 2013. A qualitative study of Ottawa university student's awareness of knowledge and perceptions of infertility, infertility risk factors and assisted reproductive technologies (ART). *Reprod. Health* 10, 41. <https://doi.org/10.1186/1742-4755-10-41>.
- Sartorius, G.A., Nieschlag, E., 2010. Paternal age and reproduction. *Hum. Reprod. Update* 16, 65–79. <https://doi.org/10.1093/humupd/dmp027>.
- Schmidt, L., Sobotka, T., Bentzen, J.G., Andersen, A.N., 2012. Demographic and medical consequences of the postponement of parenthood. *Hum. Reprod. Update* 18, 29–43. <https://doi.org/10.1093/humupd/dmr040>.
- Schytt, E., Nilsen, A.B., Bernhardt, E., 2014. Still childless at the age of 28 to 40 years: A cross-sectional study of Swedish women's and men's reproductive intentions. *Sex. Reprod. Healthc.* 5, 23–29. <https://doi.org/10.1016/j.srhc.2013.11.001>.
- Sorensen, N.O., Marcussen, S., Backhausen, M.G., Juhl, M., Schmidt, L., Tyden, T., Hegaard, H.K., 2016. Fertility awareness and attitudes towards parenthood among Danish university college students. *Reprod. Health* 13, 146. <https://doi.org/10.1186/s12978-016-0258-1>.



- Statistics Denmark, 2017. Vital statistics 2016. Available at: [www.dst.dk/publ/BefUdvikling](http://www.dst.dk/publ/BefUdvikling), Accessed date: 30 October 2017.
- Svanberg, A.S., Lampic, C., Karlstrom, P., Tydén, T., 2006. Attitudes toward parenthood and awareness of fertility among postgraduate students in Sweden. *Gend. Med.* 3, 187–195. [https://doi.org/10.1016/S1550-8579\(06\)80207-X](https://doi.org/10.1016/S1550-8579(06)80207-X).
- Sylvest, R., Christensen, U., Hammarberg, K., Schmidt, L., 2014. Desire for parenthood, beliefs about masculinity, and fertility awareness among young Danish men. *Reprod. Syst. Sex. Disord.* 3, 1–5. <https://doi.org/10.4172/2161-038X.1000127>.
- Sylvest, R., Petersen, K.B., Nyboe Andersen, A., Pinborg, A., Westring Hvidman, H., Schmidt, L., 2016. Attitudes towards family formation in cohabiting and single childless women in their mid- to late thirties. *Hum. Fertil.* 19, 48–55. <https://doi.org/10.3109/14647273.2016.1156171>.
- Thompson, R., Lee, C., 2011. Sooner or later? Young Australian men's perspectives on timing of parenthood. *J. Health Psychol.* 16, 807–818. <https://doi.org/10.1177/1359105310392091>.
- Tong, A., Sainsbury, P., Craig, J., 2007. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int. J. Qual. Health Care* 19, 349–357. <https://doi.org/10.1093/intqhc/mzm042>.
- Vassard, D., Lallemand, C., Nyboe Andersen, A., Macklon, N., Schmidt, L., 2016. A population-based survey on family intentions and fertility awareness in women and men in the United Kingdom and Denmark. *Ups. J. Med. Sci.* 27, 1–8. <https://doi.org/10.1080/03009734.2016.1194503>.
- Virtala, A., Vilska, S., Huttunen, T., Kunttu, K., 2011. Childbearing, the desire to have children, and awareness about the impact of age on female fertility among Finnish university students. *Eur J Contracept Reprod Health Care* 16, 108–115. <https://doi.org/10.3109/13625187.2011.553295>.

*Declaration: The authors report no financial or commercial conflicts of interest.*

Received 30 January 2018; refereed 6 April 2018; accepted 18 June 2018; online publication 20 July 2018.