

Do you want children in the future? Reproductive intentions of 1700 adolescents.

Authors:

Delbaere Ilse¹, De Vos Michel², Somers Sara³, Condorelli Margherita⁴, Pening David⁴, Bogaerts Annick⁵, Vandepitte Hannelore¹, Stoop Dominic³, Harper Joyce⁶, Mertes Heidi⁷

Corresponding author: Ilse Delbaere, <https://orcid.org/0000-0002-8522-2512>; [Ilse Delbaere | LinkedIn](#)

¹ VIVES University of applied sciences, Doorniksesteenweg 145, 8500 Kortrijk, Belgium

² Free University Brussels and BrusselsIVF, UZ Brussel, Brussels, Belgium, <https://orcid.org/0000-0001-5019-5924>

³ Dept. of Reproductive Medicine, Ghent University Hospital, Ghent, Belgium;

Sara Somers: ORCID iD: 0000-0003-4591-6365

Dominic Stoop: <https://orcid.org/0000-0001-7831-1085>

⁴ Université Libre de Bruxelles (ULB), Hôpital Universitaire de Bruxelles (HUB), CUB Hôpital Erasme, Clinique de Fertilité, Route de Lennik 808, 1070 Bruxelles – Belgium

David Pening : <https://orcid.org/0000-0002-7221-4361>; <https://www.linkedin.com/in/davidpening/>

⁵ REALIFE, dept. of Development & Regeneration, Women & Child, Faculty of Medicine, KU Leuven, Belgium, <http://orcid.org/0000-0003-2718-4682>

⁶ Institute for women's health, University College London; <https://orcid.org/0000-0001-6364-2367>

⁷ Dept. of Philosophy and Moral Sciences and Dept. of Public Health and Primary Care, Ghent University, Belgium <https://orcid.org/0000-0003-3029-2158>

Keywords: parenthood, intention, attitude, adolescent, childbearing

Abstract

Purpose:

In the past decades, a positive attitude towards having children has been reported in young people. The current generation of adolescents is increasingly concerned about environmental cataclysm which may have an impact on their desire for children. The purpose of this study is to depict the current attitudes in Flemish adolescents towards having children.

Materials and methods:

All secondary schools in Flanders (Belgium) were invited to distribute the anonymous online survey among their pupils in the last two years of secondary education. In total, 1700 adolescents participated and provided quantitative and qualitative data on their parenthood intentions.

Results:

Most pupils expressed a desire for children (60.2%), 24.7% were undecided and 10.8% were not willing to have children. Significantly more boys than girls would like to have children (67.0% versus 61.7%, $p < 0.01$). Having a positive representation of children and desiring a family were the most important reasons for wanting children. Adolescents who were uncertain about having children or not interested, reported financial reasons and loss of freedom as most important reasons.

Conclusions:

While the majority of adolescents would like to have children in the future, one in four adolescents is undecided and one in ten indicates a wish to remain childless; reasons for wanting children are rather personal, reasons for not wanting children are rather pragmatic.

Short condensation:

A desire for parenthood is no longer the norm: 60% of Flemish adolescents would like to build a family, but many are also considering future without children.

Word count:

2994

Introduction

The attitude towards having children has been studied extensively in the last decade, particularly to investigate factors that contribute to delayed parenthood. Most studies showed that the large majority of young individuals wants to become parents in the future [1–5]. These intentions were observed in secondary school adolescents as well as in university students. All but one study [6] published so far, indicated that young individuals have a very positive attitude towards having children.

Recent studies have qualitatively assessed parenthood intentions in the light of societal changes, such as concerns of young people about climate change [7–9]. These studies describe how eco-anxiety impacts the decision making process and how climate concerns are more prominent in young people than in older people. While some research has suggested a negative impact of eco-anxiety on reproductive intentions [10], other research found that high awareness about climate problems has little influence on reproductive decisions [11]. This ambiguity, amongst others, is illustrative for the complex decision making process considering parenthood. Ajzen and Klobas approached fertility intentions based on the theory of planned behavior and found that this was influenced by a multitude of personal, social and economic factors [12]. The objective of this study is to assess parenthood intentions in Flemish adolescents of the last grade of secondary school in a post-covid situation. This paper provides an original and comprehensive overview of the diverse range of reproductive intentions among young people.

Materials and methods

Study design and tools

This is a mixed study -design based on quantitative data collection and qualitative analysis if open-ended questions. This paper is the result of a collaboration within the International Reproductive Health Education Collaboration (IRHEC) [13]. The questionnaire for this study was developed by Joyce Harper and team [14] and has been validated by cognitive interviews and discussion with experts. The translated questionnaire has been discussed in a multidisciplinary team and has been pretested. Besides questions about parenthood intention, current knowledge about fertility and satisfaction with sex education were assessed. The questionnaire has been distributed in several partner countries of the IRHEC: the United Kingdom, Greece, and Belgium (Flanders). Only Flemish schools were included because education is a regional matter in Belgium and regulations are different between different communities. The Belgian delegation of the IRHEC (ReproductiveHealthEducation.be) was responsible for the translation, adaptation (for cultural differences), ethical committee approval and distribution of the questionnaire in Flanders.

Study population and data collection

All 714 secondary schools in Flanders were approached and were invited to ask their pupils in the last grade (age 15 – 19 years) to participate to the study.

Participating school principals informed parents of the pupils about the study through the digital school platform (i.e. Smartschool®). School principals invited the pupils to participate by providing a link to the online questionnaire (created with LimeSurvey®) via the digital school platform. Some teachers facilitated completing the questionnaire during class; in other schools, pupils completed the questionnaire at home. On the first page of the questionnaire, information about the study was provided, and participating pupils were asked if all information was clear. Informed consent had to be given to be able to participate.

Statistical analysis

Quantitative data were analyzed using IBM SPSS Statistics (version 29.0.0.0). The main study variables for this study were: parenthood intentions (nominal variable), reasons for wanting children, reasons for eventually not wanting children, reasons for not wanting children, life wishes before having children, age at first child and number of desired children. Frequencies of answers were analysed and chi-square test was used to calculate significant differences according to gender. A p-value < 0.05 was considered statistically significant.

The answers to the open-ended questions were analyzed independently by I.D. and S.S.. All answers were labeled and the labels were thereafter discussed by I.D. and S.S. and pooled in a defined number of items; for the answers of the pupils who wanted children, we obtained 41 different items, for the pupils who hesitated 43 different items and for pupils who did not want children, 27 different items. Afterwards the answers were pooled independently by these items and the frequency of answer per item was counted (figures 2-4). The items were discussed by I.D. and H.M. and classified in categories (see figures). Guedes et al. (2015) developed a childbearing motivation scale and defined the following childbearing motivations: emotional/psychological, social/normative, economic/utilitarian and biological/physical. We recognized the same categories as the childbearing motivations of Guedes, but included an extra category: 'no clear reason', besides the defined categories.

Ethical approval

This research has been approved by the Ethics Committee of the general hospital Groeninge (Kortrijk, Belgium): AZGS2021098.

Results

Forty-four schools (out of 714) from all regions of Flanders participated and 1700 pupils (36.2% boys, 60.4% girls) from all types of study areas filled out the questionnaire from February 2022 to June 2022. The characteristics of the participants are shown in Table 1.

Because of the smaller numbers, we pooled transgender and non-binary participants as well as participants who indicated 'other' for gender (n = 59, 4.4%). We did the same for sexual orientation: we withheld 'heterosexual' people (attracted to the opposite sex), 'homosexual' people (attracted to the same sex) and 'other' (bisexual people, prefer not to say, other).

Figure 1 reports the answers to the question 'Do you want children in the future?'. Most pupils would like to have children (n = 1024, 60.2%), a considerable proportion did not know yet (n = 420, 24.7%) and 184 (10.8%) reported that they did not want to have children. Significantly more boys expressed that they would like to have children than girls (67% versus 61.7%, p = 0.002) and significantly more girls reported that they would like to have children compared to participants who did not identify as 'male' or 'female' (61.7% versus 40%, p = 0.001). One in eight girls stated that they did not want to have children in the future, compared to one in thirteen boys (p = 0.003).

Grace et al. (2022) identified different reproductive intentions in a mixed-method cross-sectional survey with 1082 participants and semi-structured interviews with 35 men and women. This led to a typology labelling different reproductive intentions. In our group of adolescents, we identified Desirers (people planning to have children in the future), Flexers (unsure but open to have children) and Avoiders (not wanting children in the future).

We provided an open-ended question to inquire about participants' intentions to have children. Almost all pupils gave an answer and a considerable proportion of them gave more than one reason (Figures 2-4). First, we labelled the answers within the different groups (desirers, flexers, avoiders), then we pooled these labels to a number of items (tables 2, 3 and 4). We recognised the categories of Guedes et al. in our items and gave a colour to the items according to the Guedes – category.

Reasons for having children in the Desirers group are more often emotional/psychological (62.5%) compared to the reasons in the Flexers (30.7%, $p < 0.001$) and Avoiders (44.5%, $p < 0.001$). and unexplained rather than economic/utilitarian or biological reasons (Figures 2 – 4). Desirers express the desire to have a family ($n=125$) and report warm feelings towards children (“children are fun” $n=108$; “I love children” $n= 60$; “I like dealing with children” $n=51$; “Children are cute” $n=32$).

The main reason why pupils hesitated to have children (Flexers), was because children are expensive ($n=46$) and because of the expected loss of freedom ($n = 46$) (Figure 3). Economic/utilitarian reasons are most common in Flexers (46.5%) and Avoiders (46.6%) and significantly more present than in the Desirers (5.8%, $p < 0.001$). Many answers represented hesitation, e.g. ‘I don’t know yet’ ($n=19$), ‘I don’t know’ ($n=11$) ‘I want to do other things first’ ($n=3$). Even Flexers who indicated that they currently experience children as annoying, admitted that this might be due to the life stage they are currently in, as expressed by this answer:

- *‘I am currently in a life phase where I find dealing with young to be burdensome’*

Because the question polled for ‘reasons not to want children’, most given answers indicate why one should choose not to have children. However, some students expressed a more positive attitude towards parenthood (e.g. ‘children can be cute’). A couple of pupils indicated that ‘it seems nice to have children, but ...’ and then indicated a reason why they hesitated. A considerable number of pupils indicated that their plans might change depending on contingent factors (their future job, their partner, their financial situation, their future life situation or what the world will look like then), as in this example:

- *"Given the current state of the world, I am hesitant about bringing children into it. However, if efforts to improve our world materialize successfully, I would be more inclined to consider having children."*

Thirty-seven pupils among the four hundred twenty of the Flexers-category (8.8%) considered the world as not a good place to raise children (anymore), thirty-three further pupils (7.9%) elaborated the reason why they did not consider the world a good place (because of climate change, because of overpopulation or because of the deteriorating economic situation). These considerations associated to the changing society also correlated with the item ‘having children is a huge responsibility’. Here are some examples:

- *"It's a significant responsibility, and the current global conditions are far from ideal for bringing a child into the world"*
- *"Although I always wished for having children and it used to be my greatest fear not being able to have children, I can't help but think what a shitty world they will grow up in and that I did that to them"*
- *"While I always had a strong desire to have children, and the thought of being unable to do so used to be my greatest fear, I can't shake the concern about bringing them into a world that seems challenging and less than ideal. I can't help but feel a sense of responsibility for subjecting them to these circumstances."*

As far as the avoiders were concerned, the society-related indicators were very prominent (Figure 4): 21 of 184 pupils (11.4%) indicated they did not want to have children because the world is not a good place anymore and 20 pupils (10.9%) specified that this is the case because of overpopulation, climate change, war and/or poverty.

Again, there is a correlation between the society-related indicators for not wanting children and 'having children is a huge responsibility'. Here are some examples:

- *"Given the current state of the world, both economically and environmentally, I am reluctant to bring anyone into this mess"*
- *'Also, it does not appear responsible to bring a child into a world, where there is so much war, crime,...'*
- *'In this world? What a joke'*

The top 5 of most provided answers in the Avoiders, were: 'children are expensive' $n = 27$; 'having children is a lot of work' $n = 25$; 'children take away my freedom' $n = 24$; 'I don't like children' $n = 22$ and 'I don't need children' $n = 23$, for example:

- *'A cat will do'*

All pupils, regardless of their parenthood intention, were asked if there were certain projects they would like to complete before having children (Table 5). Almost all girls (94.7%) thought it is important to complete education before having children; this is a significant larger proportion than boys (88.1%, $p < 0.001$). Besides that, having a stable relationship (88.9%) and having a stable financial situation (85.1%) were rated as very important before starting a family.

Pupils were also asked at what age they expected to have their first child (Table 6), multiple answers were possible. Most pupils planned to have their first child before the age of 30 years. Girls wanted to start significantly earlier than boys, and 78.5% of girls wanted to have their first child at or before the age of 30 years, compared to 67.8% of boys ($p < 0.001$).

Pupils were questioned about the number of children they thought they would like to have. This question was answered by students who want children later in life ($n = 1024$). Most students who want children later envisioned a family with two children (Table 7).

When asked whether students were concerned about the possibility of having children later, nearly a quarter of students answered affirmatively (396/1700, 23.3%). Girls (39.1%), transgender women, transgender men and non-binary participants (31.8%) were significantly more concerned about this than boys (17.3%, $p < 0.001$). A large number ($n = 348$) of pupils answered the open-ended question "What exactly are your concerns about the possibility to have children later?" The majority (69.3%) were worried about their own fertility or the fertility of their future partners. LGBTQ+ students were also worried about having children because of their orientation (2.3%).

Discussion

a) Findings and interpretation

In this sample of 1700 Flemish students, 60.2% of them indicated a desire for children in the future, 24.7% did not know yet and 10.8% reported that they did not want to have children. This is in contrast with the findings of previous studies where approximately 95% of young people expressed the desire to have children at a later point in their lives [1–5]. In a previous study in a Flemish adolescent population aged 13-20 years old, 96 – 97% indicated that they wanted to have children; in

the subgroup aged 15 – 20 years old, 87.8% wanted to have children, 11.5% did not want to have children and only 0.4% were undecided [16]. It thus appears that especially the group of undecided adolescents has grown substantially, while fewer adolescents were certain about their desire for children than before.

In the context of prospective parenthood among pupils, the majority expresses a desire to have two children. Among those students aspiring to become parents, the prospect of having three children is deemed more appealing than opting for a solitary child. A significant proportion of students manifest a preference for initiating parenthood either prior to reaching the age of 30 or, at the latest, by their 35th birthday. Irrespective of gender, the attainment of educational objectives, establishment of a stable romantic partnership, and adequate financial resources are identified as the paramount life goals to be accomplished before embarking on the journey of parenthood.

b) Results in the context of what is known

This observed shift is probably not coincidental, nor region-specific, as other recent studies and reports indicated the same [14], also in adults [17]. Biswakarma et al. used the same questionnaire in a similar population (n=931) in England and also found a positive attitude towards having children in 64% of the respondents and similar proportions of pupils hesitating and not wanting children as in this study. Brown studied the likelihood of non-parents of 18-49 years old to have children in 2018 and 2021. While in 2018, 61% was very likely or somewhat likely to have children, in 2021 this dropped to 55%. Also in this population, financial reasons was one of the most stated reasons not to have children. The reasons for wanting children remained similar to earlier reported motivations in young people: many young people pictured children as a part of their aspired future life, they had positive feelings towards children and wanted to be a parent in later life [5]. An important observation was that this desire for parenthood also comes with worries, as nearly one in four students was concerned about the possibility of having children.

The reasons why Flexers and Avoiders would not want to have children were very diverse: reasons partly reflect the changes in society of the past years as young people are worried by climate change, overpopulation, war and financial troubles [7–9]. They report it is not responsible to bring children into this world. However, eco-anxiety is not the prominent reason to refrain from children in this cohort. Many Flexers and Avoiders considered children as too expensive or too time- and energy consuming. As such, they indicate that they want to spend their money, time, and energy for other purposes.

Our findings regarding the motivations for (not) wanting children reflect the four subdimensions of positive and negative childbearing motivations identified by Guedes et al. (2015). In this scale, subdimensions of positive childbearing motivations are emotional/psychological (love, affective connectedness, personal fulfillment), social/normative (social norms and pressure, responsibility, familial lineage), economic/utilitarian (labour force, economical help, support in old age) or biological/physical (proof of biological functioning, genetic connectedness with a child, enjoying pregnancy and birth process). The majority of the answers of Desirers to the open-ended questions fell within the emotional/psychological dimension. The social/normative and biological/physical dimension were marginally present, and the economic/utilitarian dimension was almost absent in the answers of our respondents. One important caveat though, is that many Desirers indicated that their desire for parenthood was unexplained.

The subdimensions of negative childbearing motivations in the Childbearing Motivations Scale (CMS) are emotional/psychological (dealing with the needs of a child, responsibilities, loss of autonomy, fear to transmit health problems/negative relational patterns), social/normative (concerns about instability, insecurity, environmental degradation and pollution), economic/utilitarian (concerns about

financial difficulties) and biological/physical (physical discomfort/complication about pregnancy and childbirth). The answers given by the Flexers and Avoiders were spread more evenly over the four categories than those of the Desirers, especially the emotional/psychological, the social/normative and the economic/utilitarian subdimensions were clearly represented. The biological/physical subdimension was least prominent in our study.

While a notably smaller cohort of pupils who do not identify strictly as 'male' or 'female' express a desire for parenthood, a substantial proportion within this demographic remains undecided. Corroborating evidence from various studies [18–21] affirms that a significant portion of individuals identifying as transgender, nonbinary, or homosexual are receptive to the prospect of parenthood. However, it is crucial to acknowledge that these individuals often encounter heightened obstacles in the pursuit of parenthood. It is crucial not to assume that people who do not fit traditional gender categories would not want to have children.

The findings regarding the preferred number of children, typically around two, and the desired age for the initiation of parenthood, commonly before the age of 30, align with the outcomes observed in previous studies [3,5]. Notably, the actual age at which women in Flanders typically have their first child is 29.6 years. Evidently, a considerable segment of the population considers the age of 30 as a significant threshold. It is noteworthy that a substantial proportion of students express a preference for a family with three children, in contrast to opting for a solitary child. This inclination may be influenced by the average number of children in Flemish households, which stands at 1.53 (Vruchtbaarheid | Vlaanderen.be); however, it is imperative to acknowledge that this observation is contingent upon surveying solely those pupils who express intentions of having children. If the inquiry were extended to encompass the entire population, including individuals with more flexible perspectives, the proportion opting for a single child might potentially be higher.

c) Clinical implications

The results of this study indicate that for some young people, having children is no longer an obvious choice. On the one hand, this might be interpreted as a growing acceptance of voluntary childlessness, potentially linked to increased exposure to examples in social media as several influencers celebrate their childfree lifestyle under the hashtags #childfree and #childfreebychoice. On the other hand, a recent study of Bodin et al. (2022) indicated that people, particularly women, often have to justify their choice of a childfree live (voluntary childlessness). Society often judges these women to challenge 'the core of normal healthy feminine identity' (Gillespie, 2000). It is remarkable that voluntary childless women are often blamed for challenging a biological inevitability and are alarmed to 'end up alone' and 'without someone to take care of them later' [22,23]. Given that at least a part of the women in our study opt to refrain from having children for the sake of the future generation, the narrative of childfree women as selfish may become less prominent.

The growing number of young people for whom it is not an important life goal to have children may have considerations for overall reproductive health. It is important that children are desired and welcome, and as such, effective contraception use is important. In contrast, we also see that an increasing number of young people refrain from contraception. The use of condoms is decreasing and there is a growing suspicion about the oral contraceptive pill. As such, this is a challenge for contraceptive counseling and an extra call to implement a discussion about the reproductive life plan at encounters with people of reproductive age [24]. These findings also may have implications for reproductive health education. The message that certain lifestyle factors impact fertility may be less

compelling to pupils who are not interested to protect their fertility. This should be taken into account within health education.

d) Research implications

The future will tell whether the observed decline in the desire for parenthood is a temporary dip due to current socio-economic, political, and ecological concerns, or the start of a more substantial trend. Also, parenthood intentions are not necessarily aligned with actual reproductive outcomes, as parenthood aspirations fluctuate over the course of a lifetime as many relational, practical, and biological hurdles can stand between intentions and outcomes.

The adolescents in this study are part of what is called 'Generation Z'. Generation Z generally refers to people who are born between 1997 and 2012 (*Pew Research Center, 2023*). Literature on parenthood intentions in generation Z is scarce, as the oldest representatives of this generation are now 26 years old, which is below the average age at which Western people start a family. Future research will clarify if this generation makes other choices concerning parenthood e.g. holds a more pragmatic approach towards relationships and having children than previous generations.

It is important however for policymakers to take note of the results of this study and to offer perspectives for young people. The results of this study indicate a rather negative world perception in some young people and pessimism about the future. This study highlights the importance of considering the social, economic, and policy factors that can influence the decision of young people to start families. A negative attitude towards having children might have an impact on population decline, which can be considered a positive outcome in terms of climate change and overpopulation [26] or a negative outcome in terms of maintaining current prosperity in an aging population [27].

Future (qualitative) research can look further into the considerations of young people to refrain from parenthood as the major reasons for not wanting children are utilitarian. Given that this research was conducted under challenging societal conditions, it would be intriguing to evaluate parenthood intentions repeatedly based on various socioeconomic, cultural and global factors to better understand their impact on individuals' family planning choices.

e) Strengths and limitations

The strength of this study is the considerable sample size of participants from a large number of schools, geographically distributed across Flanders. Pupils from all education orientation backgrounds participated, although pupils from the general education were overrepresented.

A limitation of the study is that parenthood intentions were not assessed using a validated scale, such as the CMS [28]. However, we identified very similar categories in the replies to Guedes et al.

The observation that more pupils from the general education participated and our sample had more girls than boys are further limitations of our study. This is probably due to the subject of this study and the voluntary character of this survey. Fertility is often seen as a girls-matter and as such, boys may not feel addressed [29]. Moreover, the subject of the study appealed to some vocational educations preparing for health professionals which typically incorporate mostly girls. The results indicate that more boys than girls want to have children in the future. In this group, fear for pregnancy-related problems and fear for giving birth does not matter, which may explain part of these results. The larger proportion of boys with a positive attitude towards parenthood in our study may be due to selection bias as boys who want to have children may have been more motivated to participate to this study than boys with no interest in having children.

A final limitation is that our survey was sent out in March 2022, in the wake of youth for climate marches, the COVID crisis and the conflict in Ukraine, which may all have contributed to a, potentially temporary, pessimistic outlook of adolescents towards the future.

f) Conclusions

While most adolescents (15-19y) in our study still have the intention to have children in the future, this majority has become substantially smaller than reported in previous studies. The group of adolescents who were clear about not wanting children remained relatively small, but a considerable proportion of adolescents (one in four) were undecided about whether or not they would pursue parenthood. Future research is necessary to determine whether this is a temporary or a more permanent trend and whether these parenthood intentions will translate into an increase of voluntary childlessness in the next generation.

Acknowledgements

Funding details:

This study was funded by the Practice Oriented Scientific Research (PWO) of VIVES University of Applied Sciences.

Declaration of interest statement

There is no conflict of interest to declare.

Data availability statement

The data that support the findings of this study are openly available in Zenodo at <http://doi.org/10.5281/zenodo.10417208>.

References

- [1] Tydén T, Svanberg AS, Karlström P-O, Lihoff L, Lampic C. Female university students' attitudes to future motherhood and their understanding about fertility. *Eur J Contracept Reprod Health Care* 2006;11:181–9. <https://doi.org/10.1080/13625180600557803>.
- [2] Virtala A, Vilks S, Huttunen T, Kunttu K. 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* 2011;16:108–15. <https://doi.org/10.3109/13625187.2011.553295>.
- [3] Delbaere I, Pitsillos T, Tydén T, Kerckhof L, Iliadis S. Fertility awareness and parenthood intentions among medical students in three European countries. *Eur J Contracept Reprod Health Care* 2021;submitted.
- [4] Lardou I, Chatzipapas I, Chouzouris M, Xenos P, Petrogiannis N, Tryfos D, et al. Fertility awareness and intentions among young adults in Greece. *Ups J Med Sci* 2021;126:8148. <https://doi.org/10.48101/UJMS.V126.8148>.
- [5] Almeida-Santos T, Melo C, Macedo A, Moura-Ramos M. Are women and men well informed about fertility? Childbearing intentions, fertility knowledge and information-gathering sources in Portugal. *Reprod Health* 2017;14:91.
- [6] Mogilevkina I, Stern J, Melnik D, Getsko E, Tydén T. Ukrainian medical students' attitudes to parenthood and knowledge of fertility. *Eur J Contracept Reprod Health Care* 2016;21:189–94.

<https://doi.org/10.3109/13625187.2015.1130221>.

- [7] Schneider-Mayerson M, Kit &, Leong L. Eco-reproductive concerns in the age of climate change n.d. <https://doi.org/10.1007/s10584-020-02923-y>.
- [8] Helm S, Kemper JA, White SK. No future, no kids—no kids, no future?: An exploration of motivations to remain childfree in times of climate change. *Popul Environ* 2021;43:108–29. <https://doi.org/10.1007/S11111-021-00379-5/TABLES/2>.
- [9] Smith DM, Sales J, Williams A, Munro S. Pregnancy intentions of young women in Canada in the era of climate change: a qualitative auto-photography study. *BMC Public Health* 2023;23:1–13. <https://doi.org/10.1186/S12889-023-15674-Z/FIGURES/10>.
- [10] Bielawska-Batorowicz E, Zagaj K, Kossakowska K. Reproductive Intentions Affected by Perceptions of Climate Change and Attitudes toward Death. *Behav Sci (Basel)* 2022;12. <https://doi.org/10.3390/bs12100374>.
- [11] Bodin M, Björklund J. “Can I take responsibility for bringing a person to this world who will be part of the apocalypse!?”: Ideological dilemmas and concerns for future well-being when bringing the climate crisis into reproductive decision-making. *Soc Sci Med* 2022;302. <https://doi.org/10.1016/J.SOCSCIMED.2022.114985>.
- [12] Aizen I, Klobas J. Fertility intentions. *Demogr Res* 2013;29:203–32. <https://doi.org/10.4054/demres.2013.29.8>.
- [13] Harper JC, Hammarberg K, Simopoulou M, Koert E, Pedro J, Massin N, et al. The International Fertility Education Initiative: Research and action to improve fertility awareness. *Hum Reprod Open* 2021;2021:1–4. <https://doi.org/10.1093/hropen/hoab031>.
- [14] Biswakarma R, Maslowski K, Reiss M, Harper J. Parenthood intentions of 16-18-year-olds in England: A survey of school students. *Hum Fertil* 2024;27. <https://doi.org/10.1080/14647273.2024.2310639>.
- [15] Grace B, Shawe J, Johnson S, Usman NO, Stephenson J. The ABC of reproductive intentions: a mixed-methods study exploring the spectrum of attitudes towards family building. *Hum Reprod* 2022;37:988–96. <https://doi.org/10.1093/humrep/deac036>.
- [16] Delbaere I, Kerckhof L. Fertility awareness in the Flemish population: optimism can be disadvantageous. *ESHRE*, 2015.
- [17] Brown A. Growing share of childless adults in U.S. don’t expect to ever have children. Numbers, Facts Trends Shape Your World - Pew Res Cent 2019. https://www.pewresearch.org/fact-tank/2021/11/19/growing-share-of-childless-adults-in-u-s-dont-expect-to-ever-have-children/?fbclid=IwAR3tBPt4W6DxiHyObmwz0-SqOJQFIGWWWC67Ko7cflsJdSPoOZcIPpM_AU.
- [18] Morong J, Class Q, Musa Zamah A, Hinz E. Parenting intentions in transgender and gender-nonconforming adults. *Int J Gynecol Obs* 2022;159:557–62.
- [19] Moseson H, Fix L, Hastings J, Stoeffler A, Lunn MR, Flentje A, et al. Pregnancy intentions and outcomes among transgender, nonbinary, and gender-expansive people assigned female or intersex at birth in the United States: Results from a national, quantitative survey. *Int J Transgender Heal* 2020;22. <https://doi.org/10.1080/26895269.2020.1841058>.
- [20] Mehra G, Boskey ER, Peters CJ, Njubigbo C, Charlton BM, Ganor O. Assessing Fertility Intentions in Patients Presenting for Gender-Affirming Surgery. *LGBT Heal* 2022;9. <https://doi.org/10.1089/lgbt.2021.0148>.

- [21] Lasio D, Lampis J, Spiga R, Serri F. Lesbian and Gay Individual Parenting Desires in Heteronormative Contexts. *Eur J Psychol* 2020;16:210–28. <https://doi.org/10.5964/EJOP.V16I2.1808>.
- [22] Hintz EA, Brown CL. Childfree and “bingoed”: A relational dialectics theory analysis of meaning creation in online narratives about voluntary childlessness. *Commun Monogr* 2020;87:244–66. <https://doi.org/10.1080/03637751.2019.1697891>.
- [23] Savage M. The adults celebrating child-free lives - BBC Worklife. BBC 2023.
- [24] Stern J, Larsson M, Kristiansson P, Tydén T. Introducing reproductive life plan-based information in contraceptive counselling: An RCT. *Hum Reprod* 2013;28:2450–61. <https://doi.org/10.1093/humrep/det279>.
- [25] Where Millennials end and Generation Z begins | Pew Research Center n.d. <https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/> (accessed March 20, 2023).
- [26] Roser M, Rodés-Guirao L. Future population growth. Our World Data 2019. <https://ourworldindata.org/future-population-growth#global-population-growth>.
- [27] Cheng H, Luo W, Si S, Xin X, Peng Z, Zhou H, et al. Global trends in total fertility rate and its relation to national wealth, life expectancy and female education 2021. <https://doi.org/10.1186/s12889-022-13656-1>.
- [28] Guedes M, Pereira M, Pires R, Carvalho P, Canavarro MC. Childbearing Motivations Scale: Construction of a New Measure and its Preliminary Psychometric Properties. *J Child Fam Stud* 2015;24:180–94. <https://doi.org/10.1007/s10826-013-9824-0>.
- [29] Grace B, Shawe J, Johnson S, Stephenson J. You did not turn up... I did not realise I was invited...: understanding male attitudes towards engagement in fertility and reproductive health discussions. *Hum Reprod Open* 2019;1–7. <https://doi.org/10.1093/hropen/hoz014>.

Table 1: Characteristics of participants

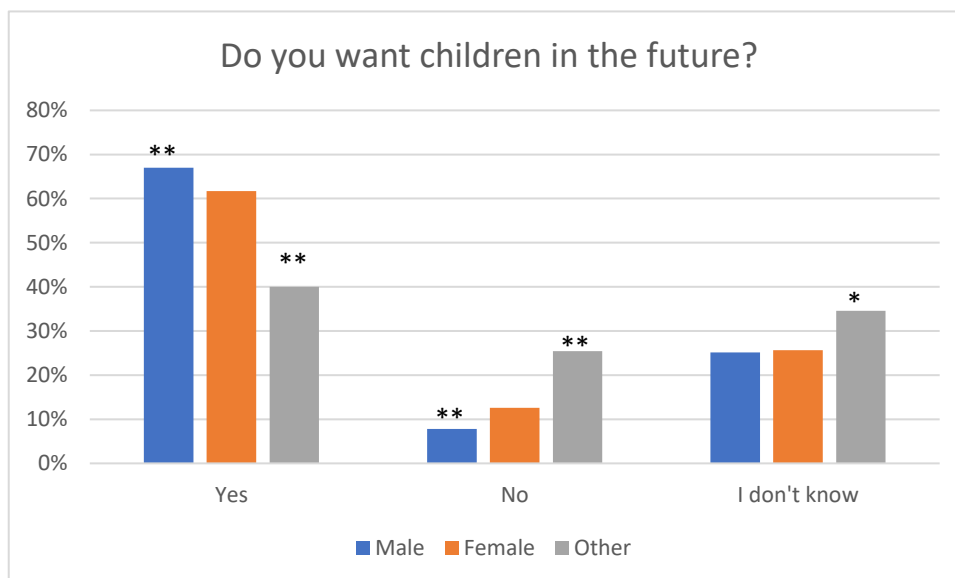
	N (%)
Province	
Antwerp	261 (15.4)
Limburg	567 (33.4)
East Flanders	420 (24.7)
Flemish Brabant	47 (2.8)
West Flanders	400 (23.5)
Not known	5 (0.3)
Gender	
Male	615 (36.2)
Female	1026 (60.4)
Other	59 (4.4)
Sexual orientation	
Heterosexual	1453 (85.5)
Homosexual	38 (2.2)
Other	209 (12.3)
Education orientation	
General education (GE)	1057 (62.2)
Arts education (AE)	481 (28.3)
Technical education (TE)	114 (6.7)
Vocational education (VE)	48 (2.8)
Age	
Range (years)	15-21
Mean age (years)	17.04
≤16 years	432 (25.4)
17 years	844 (49.6)
18 years	351 (20.6)
≥ 19 years	71 (4.2)
Not known	2 (0.2)
Origin	
Belgian	1166 (68.6)
Mixed	133 (7.8)
African	88 (5.2)
Other European country	85 (5.0)
Asian	72 (4.2)
Not known	156 (9.2)
Religion or philosophy of life	
Christian	586 (34.5)
Atheist	545 (32.1)
Muslim	154 (9.1)
Liberal	124 (7.3)
Spiritual, but no religion	111 (6.5)
Other	60 (3.5)
Not known	120 (7.1)

Table 2: Wish for children in the future

Do you want children in the future?			According to gender				
	N participants	%	Male (%)	Female (%)	P value	Other (%)	P value ¹
Yes	1024	60.2	67	61.7	0.002	40	0.001
I don't know	420	24.7	25.2	25.7	0.402	34.5	0.021
No	184	10.8	7.8	12.6	0.003	25.4	0.006
No answer	72	4.3					

¹ P value of difference between 'other' and 'female'

Figure 1: wish for children in the future



Level of significance when compared with 'female':

* = $p < 0.05$, ** = $p < 0.01$

Desirers

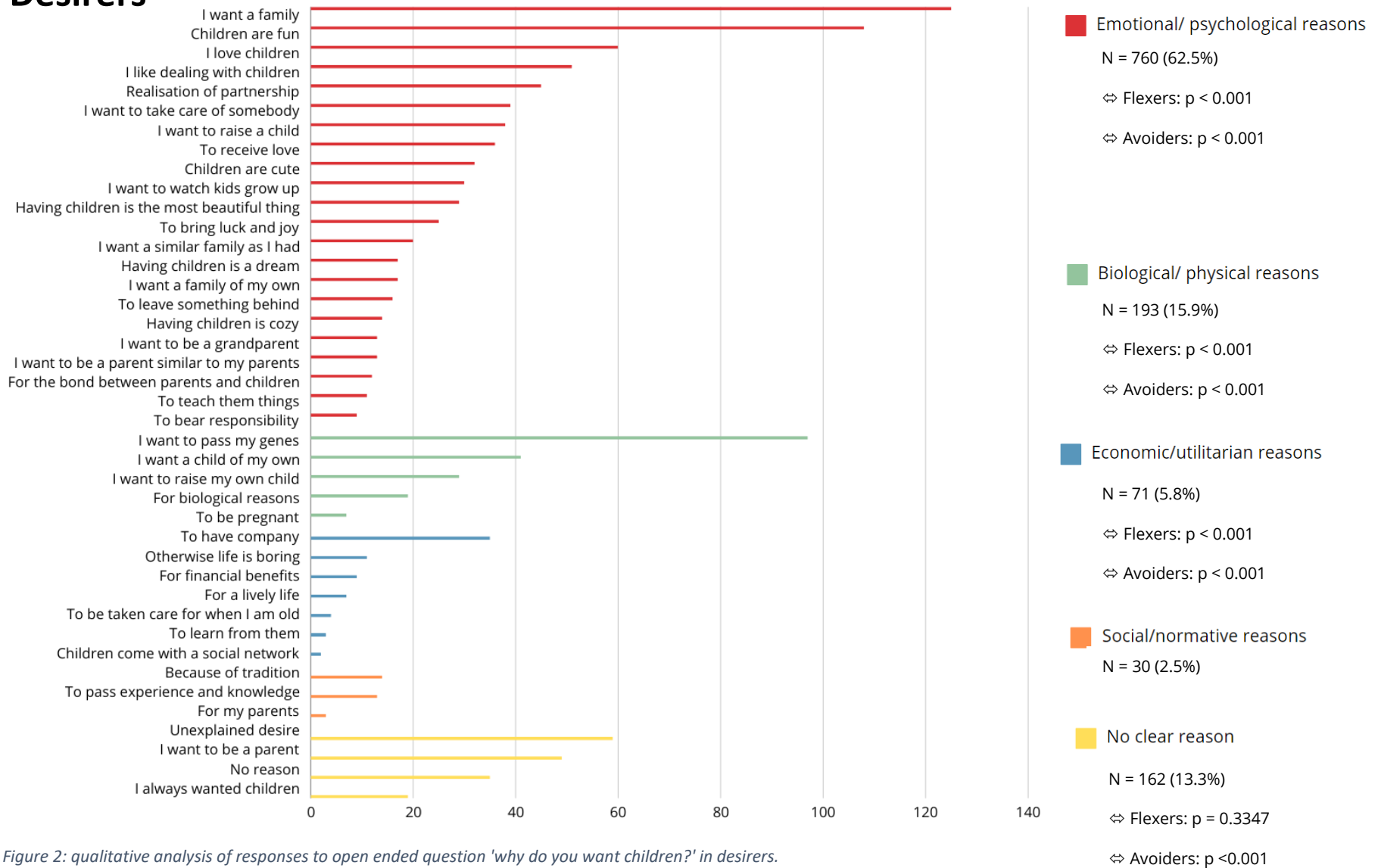


Figure 2: qualitative analysis of responses to open ended question 'why do you want children?' in desirers.

Flexers

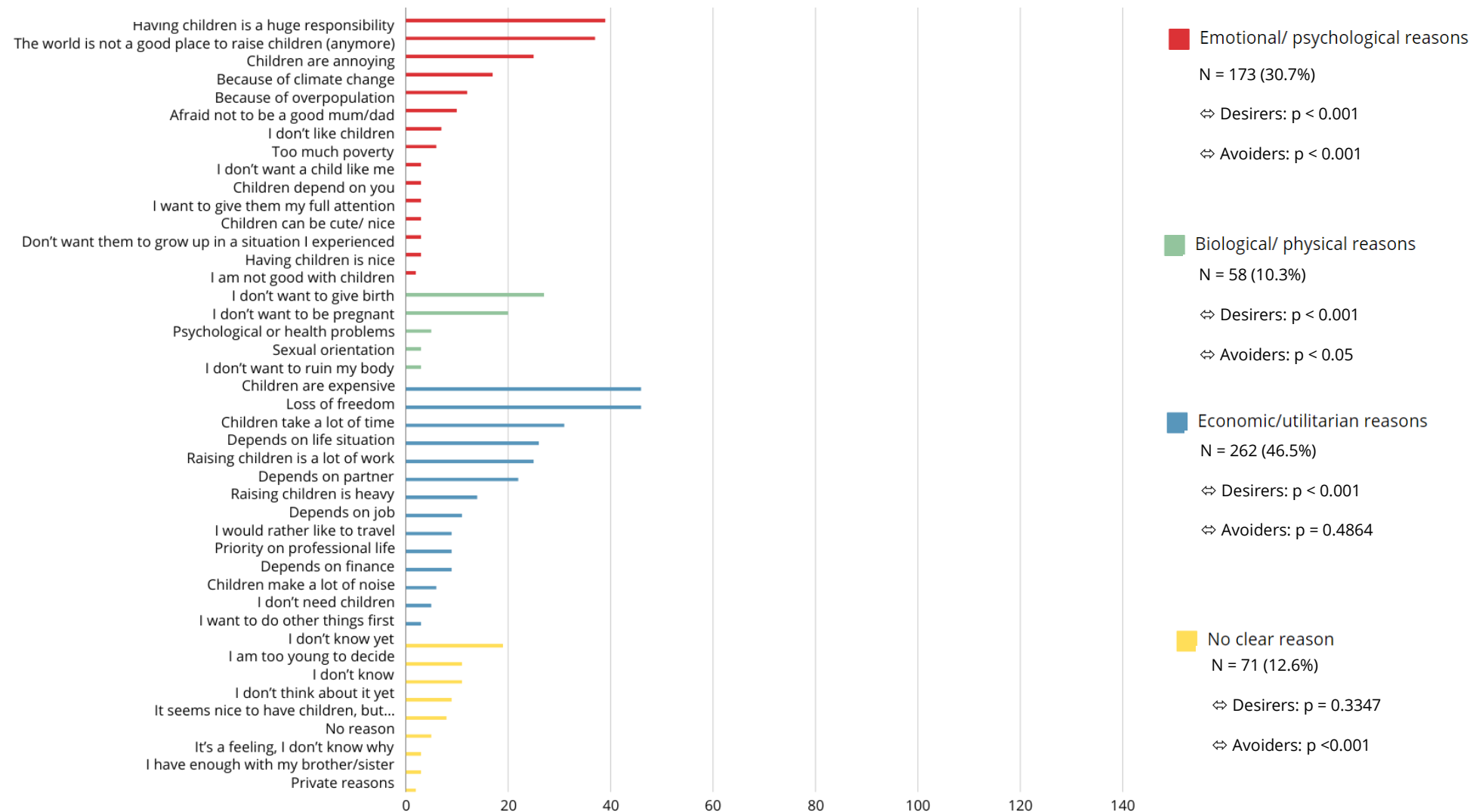


Figure 3: qualitative analysis of responses to open ended question 'why don't you want children?' in flexers

Avoiders

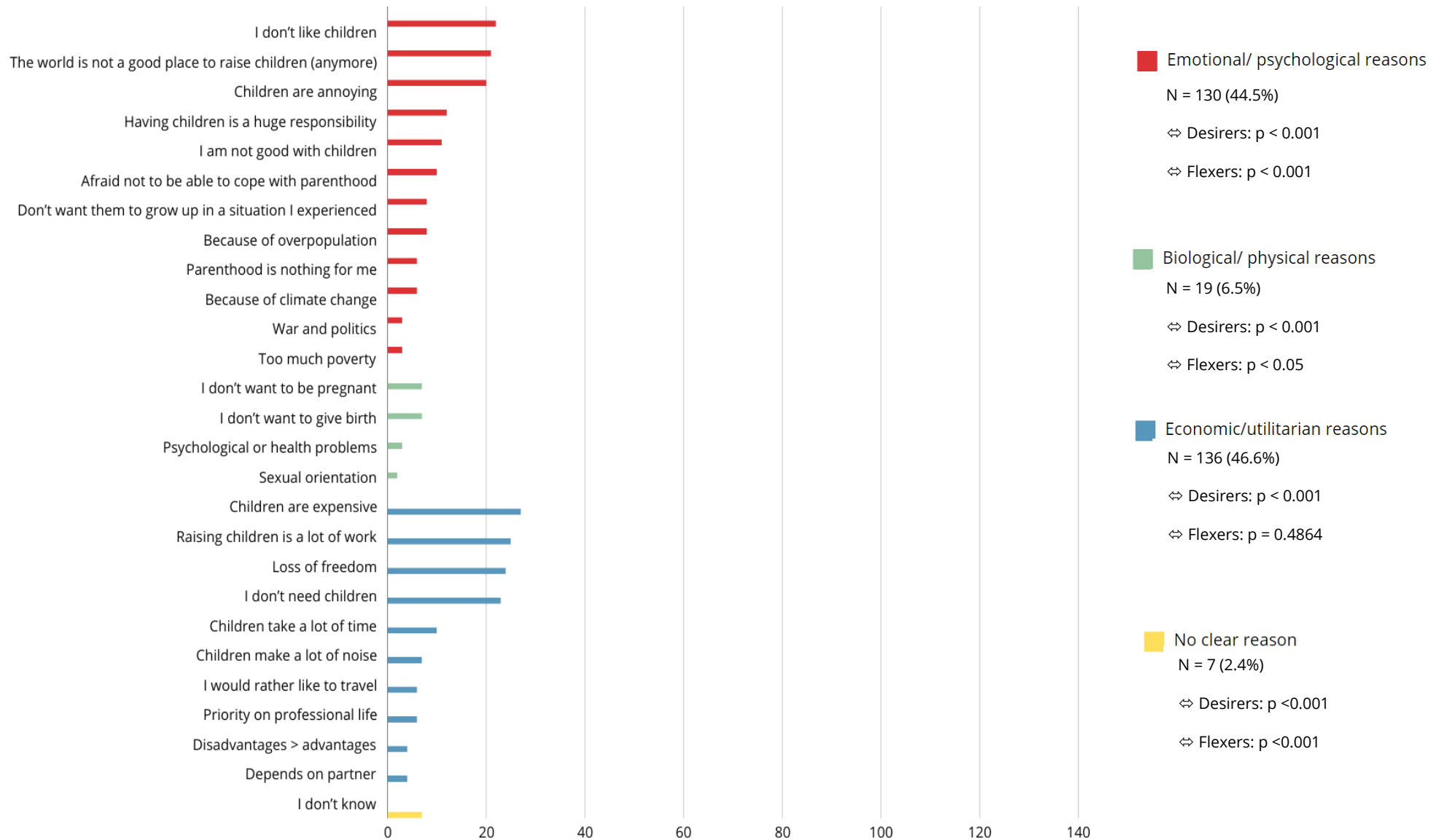


Figure 4: qualitative analysis of responses to open ended question 'why don't you want children?' in avoiders.

1

2 *Table 5: Answers to the question: 'Do you want to do certain things before having children'?*

Do you want to do certain things before having children?			According to gender				
	N participants	%	Male (%)	Female (%)	P -value	Other (%)	P – value ¹
Education (getting a degree)	942	92.0	88.1	94.7	<0.001	86.4	0.092
Having a stable relationship	910	88.9	89.6	89.1	0.822	68.2	0.003
Having a stable financial situation	871	85.1	83.5	86.3	0.215	77.3	0.228
Buying a house	754	73.6	70.8	76.0	0.068	59.1	0.071
Travelling	699	68.3	60.9	73.7	<0.001	50.0	0.014
Building a social life	584	57.0	56.1	58.4	0.473	36.4	0.04
Having a career	466	45.5	41.4	49.0	0.018	22.7	0.015
Nothing special	7	0.7	0.8	0.3	0.387	9.1	<0.001

3 ¹ P – value of difference between 'other' and 'female'4 *Table 6: Answers to the question: 'At what age do you want your first child?'*

At what age do you want your first child?			According to gender				
	N participants (N = 1496)*	%	Male (%)	Female (%)	P -value	Other (%)	P -value ¹
Age 20 or younger	12	0.8	0.3	0.9	0.331	6.9	0.044
Age 21 – 25	295	19.7	16.3	21.7	0.005	27.6	0.66
Age 26 – 30	808	54.0	51.2	55.9	0.003	51.7	NS
Age 31 – 35	337	22.5	27.6	19.7	<0.001	10.3	NS
Age 36 – 40	32	2.1	3.3	1.5	0.018	0	
Age 40 or older	8	0.5	0.9	0.2	0.077	3.4	0.003
I don't know	4	0.3	0.3	0.2	0.648	0	

5 ¹ P – value of difference between 'other' and 'female'

6 *There are more than 1024 answers because more than one possible answer could be chosen.

7

8 *Table 7: Answers to the question: 'How many children do you think you want?'*

How many children do you think you want?			According to gender				
	N participants (N = 1024)	%	Male (%)	Female (%)	P - value	Other (%)	P – value ¹
1	67	6.5	6.3	6.7	0.28	4.5	0.033
2	619	60.4	63.7	58.9	0.127	45.5	0.105
3	223	21.8	20.6	22.4	0.497	27.3	0.294
4	54	5.3	3.3	6.4	0.015	9.1	0.308
5 or more	25	2.4	2.0	2.3	0.387	13.6	0.001
I am not sure	36	3.5	4.1	3.3	0.261	0	

9 ¹ P – value of difference between 'other' and 'female'

10

11