

Maternity and abortion

Does maternity affect the abortion decision-making process and the type and number of reasons women have for the abortion?

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27-06-2022

Word count: 5070

Abstract

More than half of the abortions in the Netherlands take place in mothers. Motherhood might complicate the decision-making process, because mothers may have stronger maternal feelings; but mothers may also find the decision easier, because they know the impact having a child has on their lives. The purpose of this study was to test these contrasting hypotheses. First, mothers were compared to nulliparae on perceived doubt, emotional burden of the unwanted pregnancy and abortion, and positive and negative emotions after abortion. Second, the number and type of reasons for abortion of these groups were examined both quantitatively and qualitatively. The study was based on the first measurement of the Dutch Abortion and Mental Health Study (DAMHS), a five-year prospective cohort study (n=325). Data were collected through structured face-to-face interviews. Regression models were used to test the hypotheses, controlling for age, education level, having a partner, and living situation. Compared to nulliparae, mothers reported more often that they did not want children (anymore). Nulliparae also gave significantly more reasons than mothers. Although motherhood seems to influence the reasons mothers have for terminating the unwanted pregnancy, this is not the case for the intensity or emotional burden of the decision making process. Thus, the results do not suggest that mothers specifically need additional support in the decision-making process.

Keywords: abortion, maternity, decisional difficulty, doubt, emotions

Of all abortions in the Netherlands, 53.5% were by mothers of one or more children prior to the abortion (IGJ, 2021), which is similar to the USA's 59% in the year 2014 (Jerman et al., 2016) and 56.7% in the year 2019 in Belgium (FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu, 2021). Mothers in particular may run an increased risk of having an unwanted pregnancy, for example when they experience contraceptive changes during the breastfeeding period. Previous research has not yet investigated what role maternity plays for women who have abortions. In previous studies on women's decision-making about unwanted pregnancy, mothers gave multiple and diverse reasons for contemplating abortion. The most frequent reasons involve not possessing the financial means, time and energy to care for an additional child in their family, or they consider their family to be 'complete' (Kero & Lalos, 2000; Finer et al., 2005; Kirkman et al., 2010; Van Ditzhuijzen et al., 2019).

In the Netherlands, verifying whether a woman feels certain about having an abortion is a mandatory procedure (Rijksoverheid, 2021). Some women instantly know what to choose while others need more time to weigh their options. Maternity could possibly affect that decision-making process. Van Ditzhuijzen et al. (2019) found that some women who had undergone abortion, described having 'maternal feelings' while being pregnant and recognised their maternal feelings from earlier (wanted) pregnancies. These women experienced the decision-making process of the abortion to be difficult, since they realised the foetus could grow up like their other children. On the other hand, being a mother may simplify the decision-making process, since experienced parents understand the impact of having another child and may be able to reason more realistically why they should not have another baby.

Currently, a knowledge gap exists concerning the effects of being a mother on the abortion decision-making process. Previous studies on abortion usually include maternity as a demographical descriptive and control variable, but often do not explicitly address how being a mother affects the decision-making process related to an unwanted pregnancy. Therefore, the research question that will be investigated is as follows: does maternity affect the abortion decision-making process, and the type

and number of reasons women have for the abortion? Knowledge on how mothers experience abortion decision making may help health care professionals cater to the specific needs of mothers and provide better guidance. This thesis aims to illuminate mothers' experiences during the decision-making process.

Theoretical background

To date, there exists no theory on the effects of being a parent on pregnancy decision-making, but several mechanisms can be postulated. For instance, one could argue that the experience of parenthood increases positive feelings towards the pregnancy, because of familiarity with maternal feelings (Brauer et al., 2012), which increases decisional difficulty and rumination about the pregnancy, and therefore considering multiple reasons for abortion. On the other hand, it is also arguable that the same experience fosters a more realistic view on parenthood with all its challenges, making it a choice that is made more easily, based on less reasons. The remainder of this chapter will discuss knowledge based on empirical work on the decision-making process, as well as on reasons for abortion; the two outcome variables of this study.

Decision-making process

An unplanned pregnancy is a challenging event and women often experience decisional difficulty, as part of a healthy adaptation process to a significant life event like this. The dilemma involves two unfavourable outcomes: carrying the unplanned pregnancy to term or having an abortion. Decisional difficulty can be defined as having doubts about the unintended pregnancy and experiencing conflicting thoughts, feelings and attitudes in relation to having an abortion (Brauer et al., 2012). Women who consider having an abortion may go through a highly emotional process, such as the emotional tax of having an unwanted pregnancy and deciding whether to have the abortion or not, followed by the emotional tax of the abortion itself and the emotional aftermath of having had the

abortion. Six emotions described by Van Ditzhuijzen (2017) are relief, pride, closure, guilt, emptiness, and mourning/loss. The first three emotions could be described as positive emotions, while the latter three could be described as negative emotions. Positive and negative emotions are not mutually exclusive: e.g. women can both feel relieved and guilty after having an abortion. If mothers experience a more intense decision-making process preceding an abortion, it is assumed that they also experience more emotions post-abortion in general, both positive and negative ones.

Research has not yet established what factors contribute to high or low decisional difficulty. However, previous research has shown that despite differences in the level of decisional difficulty, there is no relation between decisional difficulty and decisional satisfaction: experiencing complex or negative emotions post-abortion does not equal regret (Kero & Lalos, 2000; Rocca et al., 2013; Van Ditzhuijzen et al., 2015). A decision can still be 'right', even if it has caused grief.

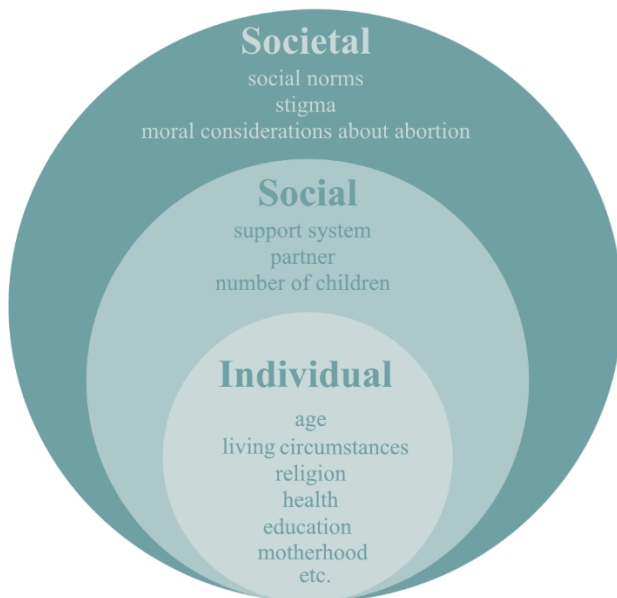
As discussed earlier, there is little literature available about the effect of maternity on decision-making. However, a recent study found that women with high decisional difficulty were more likely to be mothers and less likely to be nulliparous, compared to women experiencing no difficulty (Rocca et al., 2020). This fits with the idea that mothers experience more decisional difficulty than nulliparae (women that have not borne offspring).

Reasons for abortion

During the decision-making process, women have to consider many (interrelated) influencing factors on different levels that affect their decisional difficulty (Törnbohm et al., 1999; Finer et al., 2005; Frederico et al., 2018; Brauer et al., 2019). This is illustrated by Figure 1, which consists of an ecological model, similar to the bioecological model of Bronfenbrenner (1994) and McLeroy's social-ecological model (1988).

Figure 1

An adapted version of the bioecological model of Bronfenbrenner (1994) and the social-ecological model of McLeroy et al. (1988)



The individual level represents the individual, in this case a pregnant woman who is considering having an abortion. The individual level can be split into demographic and psychosocial factors that influence the decision-making process. Demographic factors include age, education, financial situation, living circumstances, income and religion. Psychosocial factors include health (including psychological disorders) and future plans. Social factors include the support system consisting of family and/or the partner and any children women may have at the time of the abortion. Societal factors include social norms, moral considerations about abortion and maternity, the stigma around abortion and social status.

If having the experience of parenthood increases pre-abortion decisional difficulty, it is expected that mothers consider more reasons during the process. If, however, maternity decreases decisional difficulty, it is expected that women consider less reasons, and that these reasons are more related to their family or parenthood. For example, mothers may consider their family's 'completion' as their main reason for abortion (Kero & Lalos, 2000).

Since there are many possible factors that influence decision-making, the present study will investigate only a small number of factors that are predicted to influence the decision-making process of mothers most, namely age, health, relationship with partner and living circumstances.

Age and health

Women under 25 years old in the Netherlands often still depend on their parents for housing, financial, material (child-care, helping around the house, transportation) and emotional support. Women over 25 years old often rely upon their own social network and partner and are less financially dependent on their parents. Women also report that being ‘too old’ or ‘too young’ to have a(nother) baby are reasons for having an abortion (Kirkman et al., 2010; Brauer et al., 2012). Mothers are likely to fall into the category of women who rely more upon their partner’s support than support from their parents, or feel too old to have another child and fearing for their own health or the health of their baby.

Living circumstances

Raising a child is an expensive endeavour and requires additional housing space. Being financially insecure and lacking a secure home environment are frequently named reasons for having an abortion (Kirkman et al., 2010; Brauer et al., 2012; Brauer et al., 2019). This does not only hold for women carrying their first child, it also goes for mothers who are pregnant and do not possess the financial means or housing for another child.

Relationship with partner

Research on the decision-making of women with unintended pregnancies often reports on the importance of support from partners (Kroelinger & Oths, 2000; Kapadia et al., 2011; Kimport et al., 2011; Foster et al., 2012; Van Ditzhuijzen et al., 2015). Not having a stable relationship with the father

of the child and/or not wishing to have a(nother) child with the father of the child could be a reason for women to choose to have an abortion.

Research questions and general hypotheses

The research question of this thesis is: Does maternity affect pre-abortion decision-making and the type and number of reasons for abortion? Since there are no pre-existing studies on how maternity affects pre-abortion decisional difficulty, four general hypotheses arose from assumptions built upon earlier research on pre-abortion decisional difficulty in women in general, of which two hypotheses state opposing outcomes. The hypotheses were developed to endeavour forming a theory on how maternity affects women's decision-making process, in order to fill the current theoretical knowledge gap.

Hypothesis 1

The first hypothesis posits that maternity complicates the decision-making process, leading to rumination about the pregnancy (and therefore considering multiple reasons for abortion) and experiencing negative emotions such as guilt, emptiness and loss/mourning.

This hypothesis is in line with Rocca et al. (2020), who found that maternity was a significant predictor for decisional difficulty in the group of women who experienced high decisional difficulty. Within this group, mothers reported significantly higher levels of decisional difficulty than nulliparae.

It may be the case that (positive) experiences of maternity affect the way mothers view their current pregnancy. This view is supported by the earlier studies of Brauer et al. (2012), Brauer et al. (2019) and Van Ditzhuijzen et al. (2019), in which women who experienced high decisional difficulty often admitted to having 'maternal feelings' towards the unborn child, viewing the fertilised egg as 'their baby' and comparing it to their earlier children. Mothers may experience guilt (Van Ditzhuijzen

et al., 2019) or feel selfish (Brauer et al, 2012) when they struggle with the question whether it is acceptable to not want this child while earlier pregnancies were welcomed.

Hypothesis 2

The second hypothesis is in the opposite direction of hypothesis 1 and posits that maternity decreases the decisional difficulty mothers face. Experience with being a mother helps rationalise the dilemma and enables realistic thinking, which decreases decisional difficulty (and therefore considering less reasons for abortion, but more family-related reasons) and evokes positive emotions such as relief, pride and closure.

Firstly, while her previous pregnancies may have been a positive experience, the mother's current pregnancy is unwanted, unplanned and therefore a less positive experience. Not being able to enjoy her pregnancy, the mother may feel less conflicted about having an abortion and feel more sure about her decision.

Secondly, mothers likely have a more realistic view of what having another baby entails for their current life circumstances such as the family dynamic, the financial situation, age, her own health and the health of the foetus. If she had suffered from health issues during or after her last pregnancy, the mother might feel less inclined to carry the unplanned pregnancy to term. The same conclusion may be reached if she does not possess the financial means, time and energy to care for another child. These reasons for abortion originate from previous research on pre-abortion decision-making by Finer et al. (2005), Rosenthal et al. (2010) and Van Ditzhuijzen et al. (2019).

Thirdly, regardless of possessing the means to raise another child, a mother may still choose to have an abortion. One of the main reasons a mother chooses for abortion is considering her family to be complete and therefore she does not want to have another child (Kero & Lalos, 2000; Finer et al., 2005; Kirkman, et al., 2010; Van Ditzhuijzen et al., 2019).

Lastly, mothers are more likely to be in a stable relationship with a partner who is able to support her during the decision-making process than nulliparae. Research has shown that feeling supported by friends, family and partners decreases decisional difficulty (Kimport et al., 2011; Van Ditzhuijzen et al., 2015).

Null hypotheses

The null hypotheses of this thesis predict that there is no significant difference between mothers and nulliparae in the abortion decision-making process and the type and number of reasons women have for the abortion. However, another possibility could present itself in which maternity increases the decisional difficulty in some women, while it decreases the decisional difficulty in others: the effects seemingly cancel each other out. In this case, the distribution of the scores in decisional difficulty should be checked for a clear divide between levels of decisional difficulty. Another possible explanation for the null hypothesis could be that maternity complicates as well as simplifies the decision-making process within the individual, since it is possible to experience high levels of relief and guilt at the same time. This phenomenon would level the scores on the tested outcome variables.

Expectations

If hypothesis 1 were true, it is expected that mothers experience (a) more decisional difficulty and (b) more conflicting emotions compared to nulliparae. If hypothesis 2 were true, it is expected that mothers experience (a) less decisional difficulty, (b) less conflicting emotions and (c) more family-related reasons compared to nulliparae. If the null hypothesis were true, the prediction is to find no differences between mothers and nulliparae.

In the current study, these hypotheses will be tested, while controlling for the covariates maternity, age, relationship, living situation and education. Furthermore, reasons of mothers and nulliparae mentioned in open-ended questions will be explored qualitatively.

Methods

Study design

This thesis is based on cross-sectional data sampled from the first measurement (T0) of the longitudinal Dutch Abortion and Mental Health Study (DAMHS) dataset, collected by Van Ditzhuijzen et al. (2017) and commissioned by the Dutch Organisation for Health Research and Development in order to collect longitudinal data on the mental wellbeing of women who had had an abortion. DAMHS utilised the psycho-diagnostic measurement instrument CIDI 3.0 (Composite International Diagnostic Interview) to investigate common mental disorders and a number of additional surveys. DAMHS provides a great source of information about mothers who have had abortions and their decision-making process, and is therefore a suitable dataset to answer the research question of the current thesis.

Study sample

The DAMHS methodological protocol (Vollebergh et al., 2010) states that it is of the utmost importance that abortion data is handled with confidentiality and care. Written informed consent was obtained, and the study was approved by a local medical ethics committee. Abortion doctors were asked to emphasise this confidentiality during the recruitment interviews to reassure each participant of their privacy. Each interviewer received a three-day training. Interview meetings were held at home, or in a neutral setting such as an office space with privacy booths. The survey interviews had a duration of approximately 2.5 hours and participants were assured that they could discontinue their participation at any moment in time. Afterwards, the participants received a gift card as reward for their participation.

The participants were recruited by the clinical staff in the Dutch abortion clinics in Heemstede, Utrecht, Rotterdam, The Hague, Eindhoven, Arnhem, and Zwolle. The recruitment took place from April 2010 until January 2011. Staff members provided flyers with information about the research study and a reply card to Dutch-speaking women over 18 years old who had had an abortion of an

unwanted pregnancy. On the reply card women were able to indicate whether they were willing to be contacted by researchers to hear more about the study. Participants who had agreed to being contacted, were contacted about 10-20 days after the abortion procedure, and were scheduled for an interview 20-40 days after the abortion (Vollebergh et al., 2010). The recruitment lead to a cohort of 325 (at the first measurement) consenting, Dutch-speaking women aged 18-48 who had had a self-chosen abortion.

Data and measurements

Sociodemographic variables

The following sociodemographic variables were selected for the current study: *age* (18-24; 25-34; 35-46), living situation at the time of the abortion (living with a partner; living without a partner), *relationship with partner* (in a stable relationship; not in a stable relationship), *children* (biological children; non-biological children (adopted, foster, step)) and *education* (primary education, lower secondary education (LBO or MAVO), Higher secondary education (MBO, HAVO, VWO), higher professional education (HBO or university)). The variable *education* functions as a control variable for socioeconomic status and is not tied to specific hypotheses.

Reproductive Health and Abortion variables

Reasons for abortion. One open question asked participants to name their main three reasons for abortion, these reasons were qualitatively coded into themes. Another question asked participants to check the boxes of other reasons they had had for abortion. The following checkbox reasons were included in this analysis: does not want (more) children, no (stable) relationship with partner, financial circumstances, age (too young/old) and mental or physical health.

Decisional difficulty. Decisional difficulty was measured on a scale from 1 to 5 by the question ‘Can you indicate to what extent you experienced decisional difficulty about having an abortion?’ A dummy

variable was created in which answers 4-5 were recoded as 'high decisional difficulty' and answers 1-3 as 'not high decisional difficulty'.

Emotions post-abortion. Participants were asked to rate how emotionally taxing they found the abortion on a scale from 1 to 5. A dummy variable was created in which answers 4-5 were recoded as 'high' and answers 1-3 as 'not high'. Participants were also asked to rate how emotionally taxing they found the experience of having an unwanted pregnancy on a scale from 1 to 5. A dummy variable was created in which answers 4-5 were recoded as 'high' and answers 1-3 as 'not high'.

Lastly, post-abortion emotions were measured by six statements (*relief, guilt, emptiness, closure, loss/mourning, pride*) on a scale from 1 to 5. A dummy variable was created to divide the emotion scales into negative and positive emotion scales. *Guilt, emptiness* and *loss/mourning* were categorised as negative emotions ($\alpha = .80$). *Relief, closure* and *pride* were categorised as positive emotions ($\alpha = .64$). The variable of *pride* was removed to increase the reliability ($\alpha = .72$). The emotion scales were transformed into binary variables by taking the sum of the scores on the positive or negative emotion scales. For example, if an individual rated their *relief* a 3 and *closure* a 4, their positive emotion scale would be 7. Answers above the median were recoded as 'high' and answers below and including the median as 'not high'.

Data analysis

After doing descriptive analyses and testing the assumption of multicollinearity, binary logistic regression analyses were performed to investigate possible predicting factors for decisional difficulty, the emotional tax of the unwanted pregnancy, the emotional tax of the abortion, post-abortion emotions and reasons for abortion. Predictor variables were added one by one to create a cumulative regression model.

Results

Participants and descriptive statistics

The sample includes a total of 319 women, of which 171 mothers and 148 nulliparae. Six non-biological mothers were excluded from the analyses. Given the large difference in frequency, it was considered unwise to either separate or merge biological and non-biological mothers. Further descriptive data are depicted in Table 1 below.

Table 1*Descriptive statistics of the sample (n=319).*

	Nulliparae (n=148)	Mothers (n=171)	Total (n=319)
Demographics			
Age (mean (SD))	25.0 (5.7)	34.1 (6.5)	29.9 (7.7)
18-24 (n (%))	86 (58.1)	18 (10.5)	104 (32.6)
25-34 (n (%))	50 (33.8)	64 (37.4)	114 (35.7)
35-46 (n (%))	12 (8.1)	89 (52.0)	101 (31.7)
In a steady relationship (n (%))	87 (58.8)	144 (84.2)	231 (72.6)
Living together (n(%))	36 (24.3)	106 (62.0)	142 (44.5)
Education (n(%))			
Primary education	3 (2.0)	8 (4.7)	11 (3.4)
Lower secondary education	23 (15.5)	33 (19.3)	56 (17.6)
Higher secondary education	48 (32.4)	72 (42.1)	120 (37.6)
Higher professional education	74 (50)	58 (33.9)	132 (41.4)
Decision process			
Decisional difficulty (mean (SD))	2.7 (1.6)	2.5 (1.5)	2.6 (1.6)
High decisional difficulty (n(%))	51 (34.5)	51 (29.8)	102 (32.0)
Low decisional difficulty (n(%))	97 (65.5)	120 (70.2)	217 (68.0)
Emotional tax unwanted pregnancy (mean (SD))	3.7 (1.2)	3.6 (1.4)	3.7 (1.3)
High emotional tax unwanted pregnancy (n(%))	95 (64.2)	108 (63.2)	203 (63.6)
Low emotional tax unwanted pregnancy (n(%))	52 (35.1)	62 (36.3)	203 (63.6)
Post-abortion experiences			
Emotional tax abortion (mean (SD))	2.9 (1.4)	2.8 (1.4)	2.8 (1.4)
High emotional tax abortion (n(%))	56 (37.8)	59 (34.5)	115 (36.1)
Low emotional tax abortion (n(%))	92 (62.2)	111 (64.9)	203 (63.6)
Post-abortion positive emotions (mean (SD))	7.2 (2.2)	7.6 (2.2)	7.4 (2.2)
High post-abortion positive emotions (n(%))	95 (64.2)	125 (73.1)	220 (69.0)
Low post-abortion positive emotions (n(%))	53 (35.8)	46 (26.9)	99 (31.0)
Post-abortion negative emotions (mean (SD))	8.7 (3.5)	8.3 (3.4)	8.5 (3.4)
High post-abortion negative emotions (n(%))	56 (37.8)	49 (28.7)	105 (32.9)
Low post-abortion negative emotions (n(%))	92 (62.2)	122 (71.3)	214 (67.1)
Reasons for abortion (n(%))			
Does not want more children	16 (10.8)	83 (48.5)	99 (31.0)
No (stable) relationship	73 (49.3)	40 (23.4)	113 (35.4)
Financial or material reasons	75 (50.7)	67 (39.2)	142 (44.5)
Age (too young/too old)	43 (29.1)	47 (27.5)	90 (28.2)
Health	13 (8.8)	32 (18.7)	45 (14.1)

Assumptions testing

A preliminary analysis suggested that the assumption of multicollinearity (VIF) was met (maternity, tolerance = .551 ; age, tolerance = .553; relationship, tolerance = .801; living situation, tolerance = .726; education, tolerance = .916). For statistically significant models, tables were included with more detailed information.

Decision process

For all decision process variables, no significant differences between mothers and nulliparae were found. Logistic regression analyses revealed that being a mother did not predict decisional difficulty or the emotional tax of the unwanted pregnancy.

Post-abortion experiences

For all post-abortion experiences variables, no significant differences between mothers and nulliparae were found. Logistic regression analyses revealed that being a mother did not predict the emotional tax of the abortion or positive or negative emotions.

Regarding the results, hypotheses 1 and 2 cannot be confirmed. However, there is a possibility of a cancelled out effect caused by women with very high scores on and women with very low scores on the outcome variables. Frequency diagrams (Figures 2-6 in Appendix 2) exclude this possibility, as there is no clear division of two extremes.

Reasons for abortion***Mental and physical health***

Maternity was not significantly associated with this reason for abortion while controlling for covariates (see Table 2). However, women who live together with a partner are significantly more likely to report this reason. The final model was statistically significant when compared to the null model ($X^2(5, N =$

271) = 11.648; $p = .040$). The overall model explained between 4.2% (C&S R^2) and 7.3% (Nagelkerke R^2) of the variation of positive emotions.

Table 2

Regression outcomes for reason: mental and physical health (n=319).

	B	p	Exp(B)	95% CI	
				Lower	Upper
maternity	.227	.645	1.254	.479	3.285
age	.125	.660	1.134	.648	1.983
relationship	-.203	.754	.816	.228	2.917
living situation	.973	.030*	2.646	1.099	6.373
education	-.304	.155	.738	.485	1.122

* $p < .05$

Does not want (more) children

Maternity was significantly associated with this reason for abortion while controlling for covariates (see Table 3): mothers mentioned this reason significantly more often than nulliparae (see Table 1). Furthermore, with each age group, women are significantly more likely to report this reason. The final model was statistically significant when compared to the null model ($X^2(5, N = 271) = 93.631; p < .001$). The overall model explained between 29.2% (C&S R^2) and 40.7% (Nagelkerke R^2) of the variation of positive emotions.

Table 3

Regression outcomes for reason: does not want (more) children (n=319).

	B	p	Exp(B)	95% CI	
				Lower	Upper
maternity	1.353	.003*	3.870	1.589	9.425
age	.964	<.001**	2.623	1.601	4.296
relationship	2.919	.006*	18.532	2.280	150.629
living situation	-.145	.686	.865	.428	1.749
education	.125	.539	1.133	.761	1.686

*p < .05

**p < .001

No (stable) relationship with partner

Maternity was not significantly associated with this reason for abortion while controlling for covariates (see Table 4). However, women who live together with a partner and women who are in a stable relationship are significantly less likely to report this reason. The final model was statistically significant when compared to the null model ($X^2(5, N = 271) = 87.936; p < .001$). The overall model explained between 27.7% (C&S R^2) and 40.8% (Nagelkerke R^2) of the variation of positive emotions.

Table 4

Regression outcomes for reason: no (stable) relationship with partner (n=319).

	B	p	Exp(B)	95% CI	
				Lower	Upper
maternity	-.136	.762	.873	.364	2.097
age	-.073	.796	.930	.534	1.618
relationship	-2.270	<.001**	.103	.042	.257
living situation	-1.718	<.001**	.197	.79	.407
education	-.038	.864	.962	.620	1.493

**p < .001

Financial circumstances

Maternity was not significantly associated with this reason for abortion while controlling for covariates (see Table 5). However, with each age group, women are significantly less likely to report this reason. The final model was statistically significant when compared to the null model ($X^2(5, N = 271) = 48.698; p < .001$). The overall model explained between 16.4% (C&S R^2) and 22.0% (Nagelkerke R^2) of the variation of positive emotions.

Table 5

Regression outcomes for reason: financial circumstances (n=319).

	B	p	Exp(B)	95% CI	
				Lower	Upper
maternity	.448	.219	1.565	.766	3.198
age	-1.216	<.001**	.296	.188	.468
relationship	.479	.244	1.614	.721	3.616
living situation	-.363	.240	.696	.379	1.275
education	.052	.766	1.053	.750	1.479

**p <.001

Age: too young/too old

Maternity was not significantly associated with this reason for abortion while controlling for covariates (see Table 6). However, women in a stable relationship are significantly more likely to report this reason. The final model was statistically significant when compared to the null model ($X^2(5, N = 271) = 11.173; p = .048$). The overall model explained between 4.0% (C&S R^2) and 5.7% (Nagelkerke R^2) of the variation of positive emotions.

Table 6

Regression outcomes for reason: age (too young/too old) (n=319).

	B	p	Exp(B)	95% CI	
				Lower	Upper
maternity	-.600	.118	.549	.258	1.165
age	.343	.137	1.409	.897	2.213
relationship	1.424	.008*	4.155	1.444	11.958
living situation	-.078	.801	.925	.503	1.700
education	.060	.736	1.062	.750	1.503

*p < .05

Additionally, an independent t-test was performed to check whether there is a significant difference between the quantity of reasons mothers and nulliparae name. The results show that mothers name less reasons than nulliparae ($t(317) = 3.910$; $p < .001$ (2-tailed)).

Reasons for abortion – open questions

The open-ended answers on questions pertaining to reasons for abortion were thematically analysed to provide additional insight into the way maternity plays a role in the decision-making process. Nulliparae report being too young and unready to have children. They do not want to give up their youth by becoming a mother and fear that having a baby would interfere with their education. Furthermore, nulliparae often report reasons such as living with their parents, having a very small living space and not being able to offer the child a good future. Additionally, nulliparae frequently report not being in a stable relationship, fearing single maternity or not seeing a future with the father of the child.

Mothers mainly declare having completed their family, or having closed-off the life phase of having children. Furthermore, mothers frequently mention health as an important reason for abortion, such as being too old to have another baby, fearing for the health of the foetus and their own health.

Mothers also mention having bad experiences with previous pregnancies and feeling overwhelmed by current pregnancy symptoms.

The reasons reported by mothers and nulliparae are different, but they also have something in common: their decisions about abortion and pregnancy are often driven by the desire to be a good parent. This sentiment is illustrated by the two quotes below.

“You should only bring a child into the world if you have something to offer it: I have a job now, but no house of my own and little money”

“I want to give the child a life that it deserves, the best of all, and that is not the case now”

Discussion

This explorative study aimed to provide insight into how maternity affects the abortion decision-making process and the type and number of reasons women have for the abortion. Three hypotheses were proposed, substantiated by predictions following from earlier research on decisional difficulty and abortion-related emotions.

Interpretations

Maternity does not seem to affect the decision-making process leading up to abortion

This study shows that there is no significant difference in decisional difficulty, the emotional tax of the pregnancy, the emotional tax of the abortion and positive or negative emotions between mothers and nulliparae. In essence, maternity does not appear to be a significant predictor for the extent to which women experience decisional difficulty, the emotional tax of being pregnant, the emotional tax of the abortion and emotions related to the abortion. These results are not in line with earlier findings by Rocca et al. (2020).

Mothers report different reasons for abortion, and less reasons, than nulliparae

The results show that mothers are more likely to report the reasons of not wanting (more) children than nulliparae, which is shown by the checkbox questions as well as the open questions pertaining to the three main reasons for abortion. This aligns with the predictions based on earlier research (Kero & Lalos, 2000; Finer et al, 2005; Kirkman et al., 2010; NCCMH, 2011; Brauer et al., 2012; Van Ditzhuijzen et al., 2019).

There were, however, no significant differences between mothers and nulliparae in how often they reported the reasons of age, having no stable partner, financial circumstances or health, which is contrary to expectations. Nevertheless, the open answers illustrate two distinct decision-making profiles that show that mothers do not only report different reasons for abortion, but also less reasons. Another interesting finding is that the open answers show that mothers frequently mention being too old to have another child, mainly because of health concerns for themselves and the foetus. When mothers express health reasons, they are often connected to age.

In short, hypotheses 1 and 2 cannot be fully accepted or rejected, since the results of the effect of maternity on the decision-making process are inconclusive. Further research is necessary to provide a better picture of the effect of maternity on the abortion decision-making process.

Limitations and future research

The main limitation of the present study was the small sample size. As a result, investigation into whether there exist groups of mothers who experience low decisional difficulty and groups of mothers who experience high decisional difficulty was not possible. Moreover, this study did not take into account fathers and parents of non-biological children, nor the age and number of children. Future research with a larger sample size could investigate the extent of decisional difficulty in different groups of mothers, explore how fathers and parents of non-biological children are affected by the abortion process, and how the age and number of children contribute to decisional difficulty.

A methodological limitation of this study pertains to the transformation of scalar variables into binary variables. Since the data did not meet the assumptions for multiple linear regression, dummy variables were created that divided the data into binary categories. In doing so, it became possible to use binary logistic regression analyses. However, in creating binary categories, nuances in the data may be lost.

Implications

Presently, there are no existing theories on how maternity affects the process of having an abortion upon which can be build. The present study functions as an exploration into the subject of maternity and abortion to introduce the subject to other researchers and to encourage further research into the decision-making process of mothers. A first step in closing this gap was made by focusing on maternity as a predictor variable instead of a demographic descriptive and control variable.

The results showed no significant difference in decision-making process and emotions between mothers and nulliparae. In essence, decisional and emotional difficulty pre- and post-abortion are not affected by maternity. Moreover, the results demonstrate that feeling negative emotions as well as positive emotions post-abortion is part of a healthy, normal abortion process, for both mothers as nulliparae. With regard to the decision making process, mothers do not have to be seen as a special group within the population of women who have abortions.

This study has also shed light upon the diverse reasons for abortions mothers and nulliparae report. Mothers and nulliparae report different reasons for abortion, which shows that mothers and nulliparae cannot be fully seen as one group. Mothers report less reasons than nulliparae, which indicates that maternity weighs heavily during the decision-making process. Mothers may experience a different, perhaps clearer, kind of decision-making process than nulliparae, although it does not affect their decisional and emotional difficulties. Furthermore, research shows that decisions about abortion and pregnancy are often driven by the desire to be a good parent (Foster, 2020), which is illustrated by the answers women gave when they were asked to name their main reasons for abortion.

Care providers in the abortion clinic should be aware of how being a mother may overshadow other possible reasons for abortion. Furthermore, abortion clinics already offer contraceptive guidance and counselling to women who have had an abortion, to help them find a contraceptive that fits their lifestyle and prevent unintended pregnancies and repeated abortions in the future (Ferreira et al., 2009). Offering contraceptive counselling at the time of abortion is ideal, since these women are sexually active, at risk of unwanted pregnancy, already in contact with the health care system and may not return for a follow-up appointment to receive contraception (Benson et al., 2018; Stanek et al., 2009). However, contraceptive counselling is not always effective (Ferreira, 2009). For women who report having completed their family, contraceptive counselling could extend their focus to male partners, by providing information about vasectomy.

Conclusion

Even though maternity affects the (number of) reasons women have for terminating the unwanted pregnancy, it does not seem to affect the intensity or the emotional tax of the decision process. The results do not indicate that mothers need specific additional support in the decision making process.

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Appendix 2

Frequency tables

Figure 2

Frequency table of scores given by mothers and nulliparae on decisional difficulty.

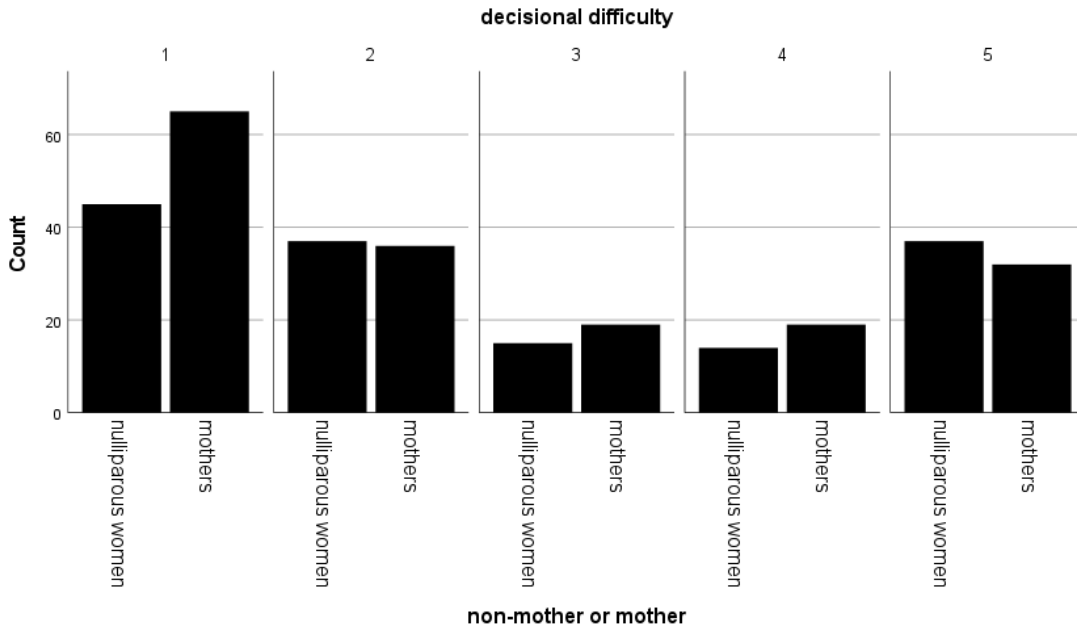


Figure 3

Frequency table of scores given by mothers and nulliparae on emotional tax pregnancy.

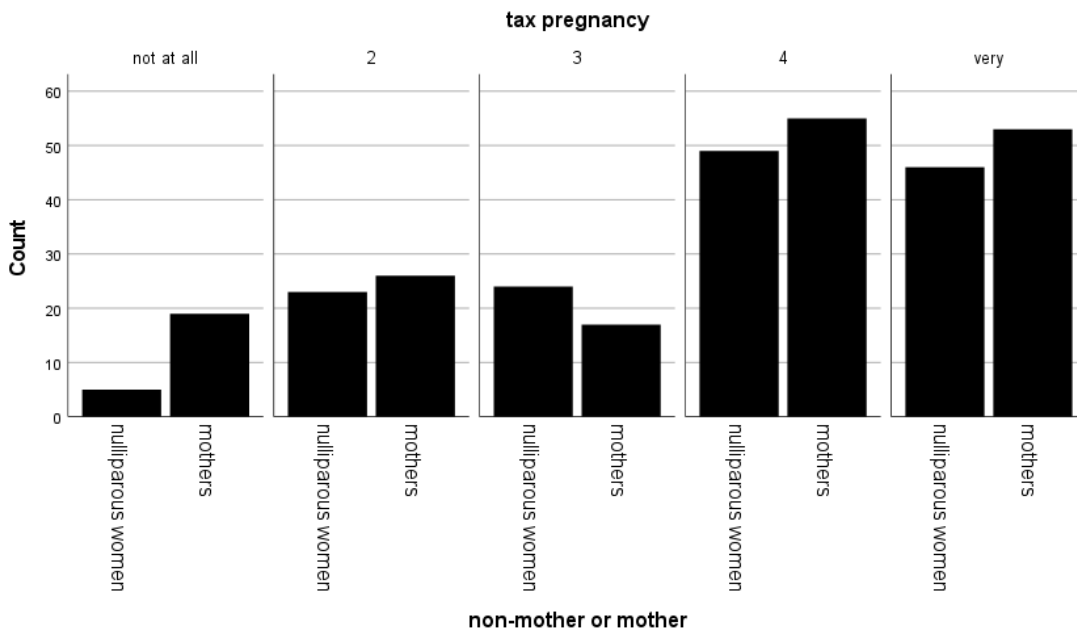


Figure 4

Frequency table of scores given by mothers and nulliparae on emotional tax abortion.

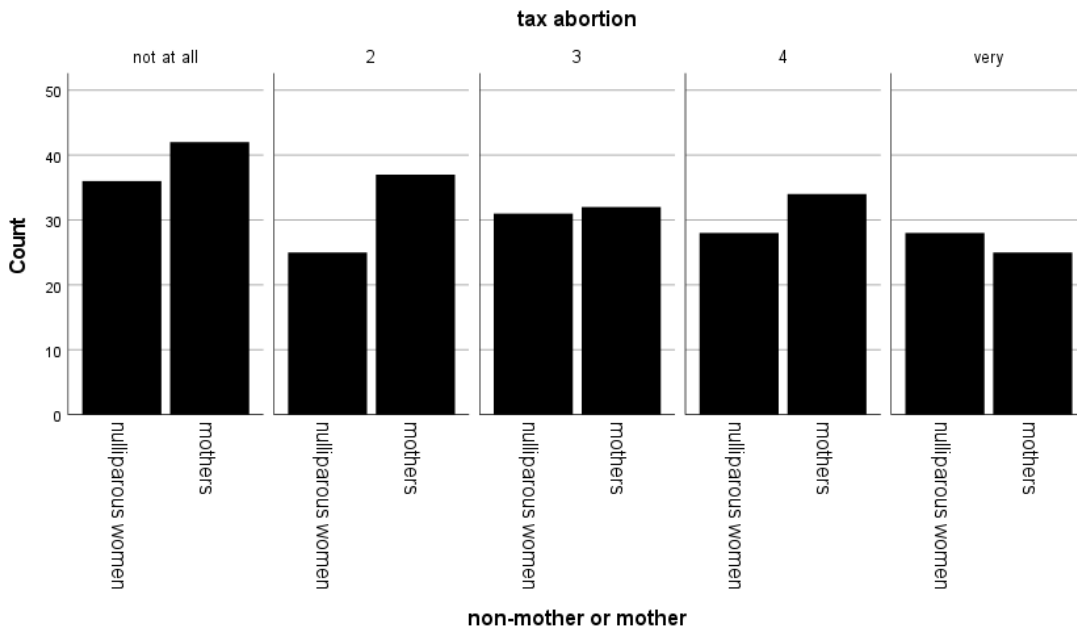


Figure 5

Frequency table of scores given by mothers and nulliparae on positive emotions.

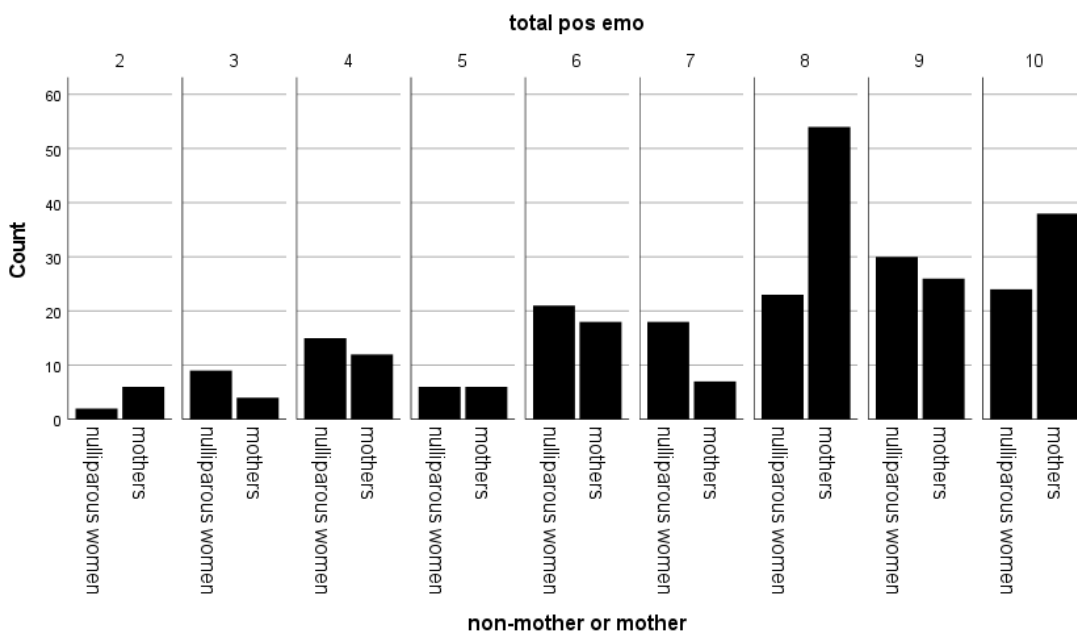


Figure 6

Frequency table of scores given by mothers and nulliparae on negative emotions.

