



**BSc in Psychology**  
**Department of Psychology**

Attitudes toward abortion among the Icelandic public

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Foreword

Submitted in partial fulfillment of the requirements of the BSc Psychology degree, Reykjavik University, this thesis is presented in the style of an article for submission to a peer-reviewed journal.

### Abstract

Abortions are very common; about 73 million abortions are performed worldwide each year. In Iceland, there were 962 documented abortions in 2020. Attitude toward abortion is a very important subject because if abortions are illegal or shameful, women might be led to have unsafe abortions. Of all abortions performed worldwide, around 45% are unsafe and can result in hemorrhaging, infections, and death. The current study examined Icelandic individuals' attitudes toward abortion. The study examined the relationship between attitudes towards abortion by gender, age, level of feminism, and if the individual knew someone who had received an abortion. The participants in the study were 489, with 321 females (65.6%), 166 males (33.9%), and two participants who were non-binary or didn't want to answer (0.2%). The age range was 18-77, with a mean age of 32 years. The findings revealed that the people with the most positive attitudes towards abortion were women, those who were younger, and participants who reported a higher level of feminism. Knowing someone who had received an abortion did not relate to abortion attitudes.

*Keywords: abortion, attitude, gender, age, feminism*

### Útdráttur

Þungunarrof eru mjög algeng en um 73 milljónir þungunarrofa eru framkvæmd á ári hverju á heimsvísu. Á Íslandi voru 962 þungunarrof framkvæmd árið 2020. Viðhorf til þungunarrofa eru mjög mikilvæg vegna þess að ef þungunarrof eru ólögleg eða vekja upp skömm þá eru konur oft neyddar til þess að fara í óöruggt og hættulegt þungunarrof sem getur leitt til blæðingar, sýkingar og dauða. Þessi rannsókn skoðar viðhorf Íslendinga til þungunarrofa. Rannsóknin skoðar hvort kyn, aldur, femínismi og hvort einstaklingur þekkir annan sem hefur farið í þungunarrof hafi áhrif á viðhorf hans til þungunarrofa. Þátttakendur rannsóknarinnar voru 489, þar af 321 konur (65,6%) and 166 karlar (33,9%) og tveir voru kynsegin eða vildu ekki svara. Aldur þátttakenda var á bilinu 18 til 77 ára en meðalaldurinn var 32 ára. Niðurstöðurnar leiddu í ljós að konur eru með jákvæðari viðhorf gagnvart þungunarrofum. Niðurstöðurnar sýndu einnig að því yngri sem einstaklingur er því jákvæðara viðhorf og því meiri femínisti sem einstaklingur er því jákvæðara viðhorf hans til þungunarrofa. Þessi rannsókn leiddi hinsvegar ekki í ljós neinn mun á viðhorfum til þungunarrofa eftir því hvort einstaklingur þekkti annan sem hafði farið í þungunarrof.

*Lykilorð: þungunarrof, viðhorf, kyn, aldur, femínismi*

### **Attitudes toward abortion among the Icelandic public**

The term abortion is, according to the Merriam-Webster dictionary, the termination of a pregnancy resulting in the death of the fetus or embryo (“Definition of Abortion,” 2022). According to Bearak et al. (2020), about six out of 10 unintended pregnancies and three out of 10 of all pregnancies end in abortions worldwide.

Abortion procedures in the first trimester of pregnancy can be surgical or medicinal. In surgical abortions, the contents of the uterus are emptied using surgical instruments and/or aspiration. In medical abortions, the patient receives drugs that interfere with fetal development, disrupt implantation, or cause uterine contractions. (Jones & Lopez, 2006).

In the second trimester, it can be more challenging to induce abortions as the uterine wall is thin and susceptible to perforation. Many surgical abortion procedures could, at this stage, cause excessive uterine hemorrhaging. One method used in the second trimester to induce abortion is intraamniotic saline injection. Third-trimester abortions are rare, but when performed, the procedures used are, for example, a hysterotomy, saline injections, dilation, and extraction. (Jones & Lopez, 2006).

### **Abortions in Iceland**

Icelandic laws permit a woman to have an abortion up until the end of the 22nd week of pregnancy. After that time, abortions are only authorized if the woman's life is at risk or if the fetus is not considered viable, as confirmed by two doctors. However, the laws state that abortions should preferably be performed as soon as possible or before the end of the 12th week of pregnancy. Before the abortion is performed, it is mandatory that the woman is educated on the possible side effects and risks that the abortion may cause. The woman has a right to counseling before and after the procedure. Abortions in Iceland are free of charge (Laws about abortions no. 43, 2019).

In Iceland, medicinal abortions are much more common than surgical abortions. In 2020, there were 832 documented medicinal abortions, 129 surgical abortions, and one

unspecified. Most were performed in the first trimester of pregnancy, 916 out of 962 abortions. Interestingly, the frequency of abortions performed in Iceland barely changed from the years 1998 to 2018, with 12.9 abortions per 1000 women in 1998 and 12.8 in 2018. The most common reason registered for abortion was for social reasons such as poverty, being too young or not wanting children (Embætti Landlæknis, n.d.-b, n.d.-a; Hildur Björk Sigbjörnsdóttir, 2019, 2022).

### **Why do women have abortions?**

There are many reasons why women choose to have an abortion. Not wanting children at all, not wanting more children, or wanting to postpone having children are some examples. Not being financially stable, having relationship problems with the father, being too young or too old, rape, incest, a possibility of or known fetal defects, health risks to both mother and fetus, and that having a child would interfere with their education or work are also common reasons why women get abortions (Bankole et al., 1998; Finer et al., 2005; Kirkman et al., 2009).

However, having an abortion can lead to both physical and emotional side effects. Physical side effects from having an abortion can be, for example, pain, nausea, cramping, and bleeding (Gerds et al., 2016). The emotional side effects of having an abortion can be sadness, guilt, regret, anger, happiness, and relief. Interestingly, a study found that the most commonly felt emotion by participants at all time points was relief. This same study on women who had received abortions found that 27% of women found it very difficult to decide to have an abortion, 27% found it somewhat difficult, and 46% found it not a difficult decision (Rocca et al., 2020).

### **Previous studies on abortion attitudes regarding gender, age, feminism, and knowing someone who has received an abortion**

Abortions can be a highly stigmatized topic. According to Hanschmidt et al. (2016), women who have had abortions receive stigma from society, their families and loved ones,

medical institutions, healthcare professionals, and, lastly, themselves. Women tend to conceal the fact that they have had or are going to have an abortion as it is so highly stigmatized by society. Many women have revealed feelings of shame and guilt after having an abortion (Hanschmidt et al., 2016). A higher rate of abortion stigma has been associated with worse mental or emotional health and delays in accessing abortion services (Hanschmidt et al., 2016; Katz, 2015; Norris et al., 2011). If, however, the population were to support abortion and understand how safe abortion procedures are, abortions would most likely be less stigmatized (Hanschmidt et al., 2016). Abortion rates may vary from society to society because of norms in different societies and differences in how accepting the population in that particular society is of abortion (Gober, 1997).

Restricting abortion laws results in less abortion availability by healthcare professionals and, therefore, an increased rate of unsafe abortions. (Medoff, 2009). The attitudes that healthcare providers have toward abortions have a significant impact on the accessibility to safe abortion services (Harries & Constant, 2020). Interestingly, women who have been denied access to abortions have worse attitudes years later toward abortions than women who receive the abortion (Woodruff et al., 2018).

Many personal variables can influence attitudes toward abortion, for example, race, religion, education, gender, and age (Adamczyk & Valdimarsdóttir, 2018; Alspaugh et al., 2022; Barkan, 2014; Jelen & Wilcox, 2003; Jonason et al., 2022; Newmyer & Yabiku, 2022; Swartz et al., 2020; Wang & Buffalo, 2004). Other variables that may play a role are, for example, political parties, sexual liberalism, feminism, motivation to have children, and gender-role attitudes (Jelen & Wilcox, 2003; Strickler & Danigelis, 2002; Wang & Buffalo, 2004).

While some studies have shown no gender differences in attitudes toward abortion (Altshuler et al., 2015; Esposito & Basow, 1995; Rodríguez-Calvo et al., 2012), others have

shown that females tend to have more positive attitudes than males (Olaitan, 2011; Patel & Johns, 2009; Scott, 1998).

Similarly, some previous studies have shown no age differences in attitudes toward abortion (Geary et al., 2012; Olaitan, 2011; Rodríguez-Calvo et al., 2012), while others have shown that the participants from the age of 18 to 64 seemed to be the most supportive of abortions (Altshuler et al., 2015; Esposito & Basow, 1995; Scott, 1998; Smith & Son, 2013). Interestingly, adolescents, teenagers, and participants over the age of 64 are the least supportive of abortions, according to the results from some research studies (Adebayo, 1990; Esposito & Basow, 1995; Smith & Son, 2013).

Studies have shown that knowing someone who has received an abortion has a positive impact on one's attitude toward abortion (Biggs et al., 2017; Jelen & Wilcox, 2003; Jones et al., 2013). Likewise, studies have shown that feminism is associated with a more positive attitude toward abortion (Smyth, 2002; Strickler & Danigelis, 2002).

Circumstances of the pregnancy also relate to abortion attitudes, as positive attitudes are most likely when the pregnancy is a result of rape or incest and if either the pregnant woman's or the fetus's health or life is at risk (Adebayo, 1990; Geary et al., 2012; Gleeson et al., 2008; Hess & Rueb, 2005; Newmyer & Yabiku, 2022; Olaitan, 2011; Patel & Johns, 2009; Rodríguez-Calvo et al., 2012). However, other studies showed that many participants found it unacceptable in any circumstances (Gilliam et al., 2007; Patel & Myeni, 2008; Swartz et al., 2020).

### **Importance of the subject**

The subject of abortions is vital, as around 73 million abortions are performed worldwide each year. Restricting access to abortions does not reduce the number of abortions performed; it only affects the safety and well-being of the women receiving the abortion (Bearak et al., 2020). Countries with highly restrictive laws toward abortions have significantly higher rates of unsafe abortions than countries with less restrictive laws

(Ganatra et al., 2017). According to the World Health Organization, around 45% of all induced abortions are unsafe. Unsafe abortions are the foremost cause of maternal morbidities and deaths worldwide. Unsafe abortions can result in mental and physical illnesses and are said to be financial burdens for health systems, women, and communities. Some physical complications unsafe abortions can cause are, for example, hemorrhaging, infections, and uterine perforations (World Health Organization, 2021).

### **The current study**

The current study aimed to find out about Icelandic individuals' attitudes toward abortion and whether there was a difference between genders, age groups, feminism, and whether the individual knew someone who had received an abortion. In addition, the goal was to find out in which circumstances the Icelandic public found it acceptable for a woman to have an abortion. The current study was the first study on this topic in Iceland.

Abortion attitudes differ by gender, age, level of feminism, and knowing someone who has received an abortion (Adebayo, 1990; Altshuler et al., 2015; Biggs et al., 2017; Esposito & Basow, 1995; Jelen & Wilcox, 2003; Jones et al., 2013; Olaitan, 2011; Patel & Johns, 2009; Scott et al., 2009; Scott, 1998; Smith & Son, 2013; Smyth, 2002; Strickler & Danigelis, 2002). Therefore, four hypotheses were suggested. The first hypothesis was that Icelandic females had more positive attitudes toward abortion than Icelandic males. The second hypothesis was that younger Icelandic people had more positive attitudes toward abortion than older Icelandic people. The third hypothesis was that referring to oneself as a feminist results in a more positive attitude toward abortion. The fourth and final hypothesis suggested that knowing someone who had received an abortion positively influenced one's attitude toward abortion.



## Method

### Participants

To be in the study, the participants had to be 18 years or older and a member of the Icelandic public. This topic of discussion could be rather sensitive for some, and the participants were informed that they could, if necessary, retract their participation in the study and could contact the researcher if any questions or feelings of discomfort arose. The sample was a convenience sample as the participants were recruited through the social media platforms Facebook and Instagram and through an email sent to all the students currently studying at Reykjavik University. The participants received no reimbursements for participating in the study.

A total of 614 individuals started this study; however, only 487 of the responses were valid and used in the data analysis. The completion rate was, therefore, 70.85%. Of the 487 participants, there were 321 females (65.9%) and 166 males (34.1%). Three participants were either non-binary or did not want to answer the question regarding gender and were therefore excluded from the analysis. The participants ranged in age from 18 to 77 ( $M = 32.07$ ,  $SD = 14.05$ ), but most, or 50.9%, of the participants were 18-25 years old, see Table 1.

**Table 1.**

*Gender and age of the participants*

Characteristics	Frequency (%)
Gender	
Female	321 (65.9%)
Male	166 (34.1%)
Age	
18-25	248 (50.9%)
26-35	102 (21%)
36-45	33 (6.7%)
46-55	58 (12%)
56-65	27 (5.5%)
≥ 66	19 (3.9%)

## Measures

The background questions were three in total: Gender, age, and area of residence. These questions were constructed by the researcher. The gender question was "What gender do you identify yourself as" and the answer options were; *male, female, non-binary, and I do not know or I do not want to answer*. The age question was "What is your age in numeral letters" and the participants wrote their age. The area of residence question was "Where do you live" and the answer options were *the Capital area, in the North of Iceland, in the East of Iceland, in the South of Iceland, in the Southern Peninsula, in the Westfjords, in the West of Iceland and other*.

One question in the questionnaire was received from the Liberal Feminist Attitude and Ideology Scale (LFAIS). The question was, "To what extent do you consider yourself a feminist?". The answer options were on a scale from 1 = *I do not consider myself a feminist at all, and I believe that feminists are harmful to family life and undermine relations between men and women* and 8 = *Committed feminist currently active in the women's movement*. (Morgan, 1996).

## *Abortion Attitudes Questions*

The questionnaire contained 21 statements regarding abortion attitudes and 24 questions regarding abortion attitudes related to the gestational week in which the hypothetical abortion would take place.

The Abortion Attitude Scale (Taylor & Whitehead, 2014) provided 10 questions used in the questionnaire. The questions or the statements were about one's attitude and opinions regarding abortion. Examples of the statements are "Abortion is not acceptable under any circumstances", "The human fetus is a living being and therefore should be protected by law", and "Abortion is murder". The Taylor and Whitehead Abortion Attitude Scale was reliable ( $\alpha = .92$ ).

Parsons et al.'s (1990) Reasoning About Abortion Questionnaire (RAAQ) provided 11 questions to the study. Examples are "Abortion can be described as taking a life unjustly", "A woman should have the right to decide to have an abortion based on her own life circumstances", and "Abortion is the destruction of one life for the convenience of another". The RAAQ consists of more questions, but eleven were chosen as suitable for the study. The reliability of the Reasoning About Abortion Questionnaire was  $\alpha = .94$ .

The answers to the previous scales about abortion attitudes were measured on a Likert scale, ranging from 1 = *strongly disagree* to 5 = *strongly agree*. The higher the scored outcome, the more positive the attitude toward abortion. The questions were translated to Icelandic by the researcher to better suit the population. In this study, the reliability of the questions in regarding abortion attitudes was  $\alpha = .94$ , while the reliability for the abortion attitude questions related to the gestational week was  $\alpha = .91$ .

Questions regarding one's attitude toward abortion from the General Social Survey (GSS) were used in the study (Davis & Smith, 2020). The GSS is a national survey of adults in the United States with questions regarding a wide spectrum of matters. The questions were for example "Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if there is a strong chance of a serious defect in the baby?" and "Please tell me whether or not you think it should be possible for a pregnant woman to obtain a legal abortion if the woman's own health is seriously endangered by the pregnancy?". However, added to some of the questions were gestational weeks, as has been done in previous studies using the GSS (Crawford et al., 2022). For example, one question was, "Please tell me whether or not you think it should be possible for a pregnant woman, who is 6 weeks (1.5 months) pregnant, to obtain a legal abortion". The gestational weeks included in the questions were six, 12, and 20 weeks and also regardless of gestational week. The answers to these questions were measured on a nominal scale, with the options being

*"Acceptable", "Not acceptable" or "I do not know or do not want to answer"*. The reliability of the questions used from the GSS was  $\alpha = .92$ .

### **Procedure**

The study was conducted from February 22nd to March 20th. The survey software QuestionPro was used to administer the questionnaire. The participants accessed the questionnaire via a link posted on social media or received in an email from Reykjavik University. Before answering the questionnaire, the participants read an information sheet explaining that the study was a part of a Bachelor thesis at Reykjavik University, what the aim of the study was, and a short clarification on the concept of abortion. Participants were informed that by continuing to answer the questionnaire, they would thereby give their informed consent. It was also stated that participants could retract their participation in the study whenever and were not required to finish the study. If any questions or feelings of discomfort arose while answering the questionnaire, as this topic of discussion might have been uncomfortable for some, the participants were encouraged to contact the researcher via email. The participants were made aware that all data from the questionnaire would be anonymous and not personally identifiable. The participants were informed that partaking in the study would take five to 10 minutes approximately. After completing the questionnaire, the participants were thanked for participating in the study.

### **Data analysis**

The 27th version of the statistical software IBM SPSS Statistics was used to process the data received and perform the statistical analysis. Descriptive statistics were calculated to receive the characteristics of the participants. Additionally, a factor analysis was performed, independent sample t-tests to compare the abortion attitude score means between genders and whether the participant knew someone who had received an abortion. Pearson's correlation was conducted to compare the difference in mean abortion attitude scores first between

different ages and then between the differing levels of feminism. Finally, a one-way ANOVA was conducted to discover whether the difference in mean abortion attitude scores between different age groups was significant.

### Results

As Table 2 shows, the most commonly agreed-upon circumstance in which abortion was deemed acceptable was if the mother's health was at risk, or by 96.3% of the participants. 93.9% of the participants agreed that a woman should have the right to choose to have an abortion. The highest percentage (22.7%) of the neutral option was in the case of whether it was better to have the baby and give it up for adoption than to abort.

**Table 2.**

*Participants' agreement or disagreement with abortion statements.*

	Agree N (%)	Neutral N (%)	Disagree N (%)
Abortion is acceptable if the mother's health is endangered.	472 (96.3%)	9 (1.8%)	9 (1.8%)
A woman should have the right to choose to have an abortion.	460 (93.9%)	12 (2.4%)	17 (3.4%)
A woman should have control over what is happening to her own body by having the option to choose abortion.	459 (93.7%)	18 (3.7%)	9 (2.2%)
A woman should have the right to decide to have an abortion based on her own life-circumstances.	458 (93.5%)	22 (4.5%)	7 (1.4%)
A woman should be able to exercise her rights to self-determination by choosing to have an abortion.	455 (92.8%)	20 (4.1%)	12 (2.4%)
Abortion is a matter of personal choice.	446 (91.0%)	26 (5.3%)	17 (3.4%)
Outlawing abortion violates a woman's civil rights.	444 (90.6%)	22 (4.5%)	21 (4.2%)
If a woman feels she can't care for a baby, she should be able to have an abortion.	431 (88.0%)	32 (6.5%)	24 (4.9%)
A female has the right to determine the best course for the life of her fetus.	424 (86.5%)	49 (10.0%)	15 (3.0%)
If a woman finds out her baby will be born with a fetal disorder, she has the right to abort.	421 (85.9%)	52 (10.6%)	17 (3.4%)
Even if one believes that there are times when abortion is immoral, it is still basically the woman's own choice.	389 (79.4%)	83 (16.9%)	13 (2.6%)

The human fetus is a living being and therefore should be protected by law.	61 (12.5%)	106 (21.6%)	322 (65.8%)
An unborn fetus is a viable human being with rights.	44 (9.0%)	94 (19.2%)	349 (71.2%)
Abortion is the destruction of one life for the convenience of another.	34 (6.9%)	83 (16.9%)	370 (75.5%)
Abortion violates an unborn person's fundamental right to life.	32 (6.5%)	70 (14.3%)	386 (78.8%)
It is better to have the baby and put it up for adoption than abort.	26 (5.3%)	111 (22.7%)	351 (71.6%)
Abortion can be described as taking a life unjustly.	22 (4.5%)	28 (5.7%)	437 (89.2%)
Abortion is morally unacceptable and unjustified.	16 (3.2%)	30 (6.1%)	441 (90.0%)
I believe abortion goes against all morals.	14 (2.8%)	23 (4.7%)	452 (92.3%)
Abortion is not acceptable under any circumstances.	12 (2.4%)	19 (3.9%)	459 (93.6%)
Abortion is murder.	12 (2.4%)	27 (5.5%)	450 (91.8%)

*Note.* Strongly agree and agree were combined into the category agree, and the same goes for strongly disagree and disagree.

Descriptive statistics were performed on the degree of feminism variable. Most participants, or 31.3%, agreed with some of the objectives of the feminist movement but tend to be somewhat traditional and therefore do not consider themselves a feminist. Only 23.9% of the participants considered themselves a feminist. Therefore, 76.1% of the participants did not consider themselves a feminist.

Likewise, descriptive statistics were also conducted on the variable regarding whether the participant knew someone who had received an abortion. 343 or 70% of the participants, did know someone who had received an abortion, while 77 or 15.7%, did not. 11 participants or 2.2%, did not know or did not want to answer.

The sample was acceptable for analysis ( $KMO = .96$ ), and Barlett's test of sphericity was significant ( $p < .001$ ). A factor analysis with Promax rotation was performed with all 21 items, and a scree plot was created. The scree plot indicated two factors, but Kaisers' criterion indicated three. Three factors were chosen, accounting for 62.8% of the total variance in the data: the fetus's rights, the mother's rights, and specific health-related circumstances.

The fetus's rights factor contained statements that were consistent with a negative attitude toward abortion, for example, "Abortion is murder". The mother's rights factor, however, contained statements that were consistent with a positive abortion attitude, for example, "Outlawing abortion violates a woman's civil rights". The factor relating to specific health-related circumstances consisted of only two statements, "Abortion is acceptable if the mother's health is endangered" and "If a woman finds out her baby will be born with a fetal disorder, she has the right to abort" which assumes that the attitude toward abortion is situational. The factor loadings can be seen in Table 3.

**Table 3.**

*Factor loadings from factor analysis.*

	Component		
	1	2	3
Abortion can be described as taking a life unjustly.	<b>.853</b>		
Abortion is morally unacceptable and unjustified.	<b>.846</b>		
Abortion violates an unborn person's fundamental right to life.	<b>.846</b>		
Abortion is the destruction of one life for the convenience of another.	<b>.756</b>		
An unborn fetus is a viable human being with rights.	<b>.738</b>		
Abortion is murder.	<b>.734</b>		
The human fetus is a living being and therefore should be protected by law.	<b>.714</b>		

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I believe abortion goes against all morals.	<b>.709</b>
It is better to have the baby and put it up for adoption than an abortion.	<b>.665</b>
Abortion is not acceptable under any circumstances.	<b>.645</b>
A woman should be able to exercise her rights to self-determination by choosing to have an abortion.	<b>.921</b>
A woman should have the right to decide to have an abortion based on her own life circumstances.	<b>.896</b>
Abortion is a matter of personal choice.	<b>.889</b>
A woman should have control over what is happening to her own body by having the option to choose abortion.	<b>.885</b>
A female has the right to determine the best course for the life of her fetus.	<b>.792</b>
If a woman feels she can't care for a baby, she should be able to have an abortion.	<b>.787</b>
A woman should have the right to choose to have an abortion.	<b>.734</b>
Outlawing abortion violates a woman's civil rights.	<b>.694</b>
Even if one believes that there are times when abortion is immoral, it is still basically the woman's own choice.	<b>.579</b>

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Abortion is acceptable if the mother's health is endangered.	<b>.870</b>
If a woman finds out her baby will be born with a fetal defect, she has the right to abort the child.	<b>.728</b>

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The total mean score for the factor fetus's rights was 43.4 ( $N = 487$ ,  $SD = 6.8$ ). For the second factor, the woman's rights, the mean score was 41.0 ( $N = 485$ ,  $SD = 5.6$ ); for the third factor, specific health-related circumstances, the mean was 9.2 ( $N = 490$ ,  $SD = 1.3$ ). In factor 1, the highest possible score was 50. In factor 2, it was 45; in factor 3, the highest possible score was 10. The highest score relates to the most positive abortion attitude. The total mean abortion attitude score was, therefore, 93.6. The scores ranged from 33 to 105.

Independent samples t-tests were conducted to compare the mean abortion attitude score from the three factors between males and females. The mean abortion attitude scores for the female participants in the factor regarding the fetus's rights were 44.5 ( $N = 320$ ,  $SD = 5.9$ ) and 41.1 ( $N = 164$ ,  $SD = 7.7$ ) for the males. This means that women had more positive abortion attitudes because if the fetus had higher rights, the abortion would not be justified. This difference was significant  $t(482) = 5.6$ ,  $p < .001$ . In factor 2, the woman's rights, the mean abortion attitude score for the female participants was 42.1 ( $N = 319$ ,  $SD = 4.6$ ) and 38.9 ( $N = 163$ ,  $SD = 6.7$ ) for the males. Meaning that women had a more positive abortion attitude with regard to women's rights. This difference was significant  $t(480) = 6.1$ ,  $p < .001$ . The mean abortion attitude score from factor 3, specific health-related circumstances, was 9.3 ( $N = 321$ ,  $SD = 1.2$ ) for the female participants and 8.9 ( $N = 166$ ,  $SD = 1.4$ ) for the male participants. This means that women had a more positive attitude toward abortion regarding

specific health-related circumstances. This difference was also found to be significant  $t(485) = 3.3, p = .014$ .

Independent samples t-tests were also conducted to see differences in the three factors by whether the participant knew someone who had received an abortion. The mean abortion attitude score in the fetus rights factor was 43.9 ( $N = 342, SD = 6.7$ ) if the participants knew someone who had received an abortion but 42.9 ( $N = 77, SD = 6.5$ ) if they did not know someone who had received an abortion. This difference was not found to be significant  $t(417) = 1.1, p = .417$ . In the woman's rights factor, the mean score for those who knew someone who had received an abortion was 41.3 ( $N = 340, SD = 5.4$ ) but 40.8 ( $N = 77, SD = 5.6$ ) for those who did not. This difference was not found to be significant  $t(415) = .73, p = .694$ . The mean score for the specific health-related circumstances factor among those who knew someone who had received an abortion was 9.2 ( $N = 343, SD = 1.4$ ) but 9.1 ( $N = 77, SD = 1.1$ ) for those who did not know someone who had received an abortion. This difference was, however, not found to be significant  $t(418) = 4.4, p = .542$ .

Pearson's correlation tests were performed to examine the relationship between age and the three factors. The correlation between age and the factor of fetus rights was negative and significant,  $r(487) = -.289, p < .001$ . The correlation between age and the woman's rights factor was also negative and significant,  $r(485) = -.38, p < .001$ . The correlation between factor 3, specific health-related circumstances, and age was also found to be significant and negative,  $r(490) = -.23, p < .001$ . Thus, the younger the participant, the more positive the attitude within all three factors.

Pearson's correlation tests were also conducted to measure the correlation between the three abortion attitude factors and one's degree of feminism. The correlation between the fetus's rights factor and feminism was positive and significant,  $r(487) = .44, p < .001$ . A

positive correlation between the factor of woman's rights and feminism was found,  $r(485) = .44$ ,  $p < .001$ . The correlation between the health-related circumstances factor and feminism was also found to be significant and positive,  $r(490) = .23$ ,  $p < .001$ . This means that the higher the level of feminism, the more positive the abortion attitudes across all factors.

Table 4 shows attitudes toward abortion by age. A one-way ANOVA was conducted. A one-way ANOVA analysis showed that the mean differences between the age groups were significant,  $F(5, 476) = 14.67$ ,  $p < .001$ . The age group 18-25 years had the highest mean abortion attitudes scores, while the age group 56-65 years had the lowest mean scores.

**Table 4.**

*Mean abortion attitude scores within different age groups.*

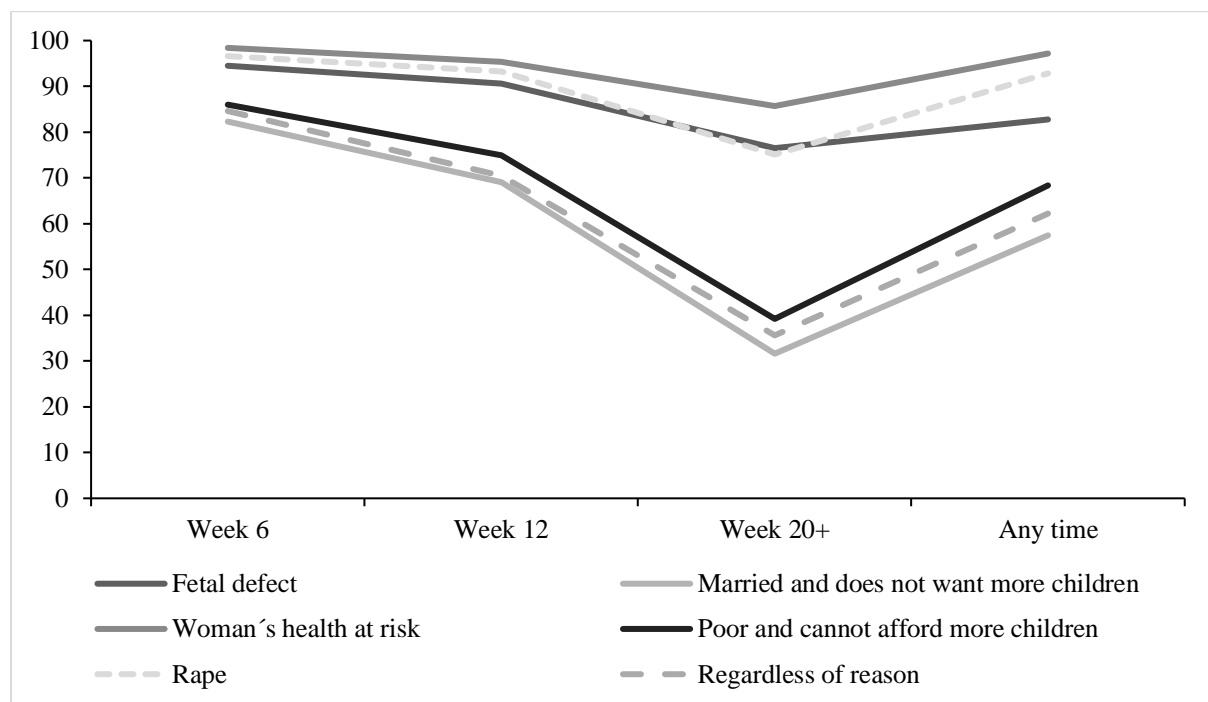
Age groups	<i>N</i>	<i>M</i>	<i>SD</i>
18-25	248	97.02	9.04
26-35	102	93.90	12.79
36-45	33	92.21	13.12
46-55	58	88.20	13.21
56-65	27	82.40	11.22
66+	19	85.47	16.75

As Figure 1 shows, across all time periods, the most approved reason for having an abortion was if the woman's health is at risk. The other commonly approved reasons were rape and a high chance of fetal defect. As the hypothetical pregnancy reaches a further length, the rate of participants' answering "Don't know or don't want to answer" rises. At 20 weeks or further, many participants chose that option. The least commonly approved instance where

participants found abortion to be acceptable was at 20 weeks or further, and the reasoning for the abortion was if the woman was married and did not want more children.

**Figure 1.**

*Percentage of participants' agreement to whether abortion was acceptable in specific circumstances while also regarding the gestational week.*



### Discussion

The aim of the study was to find out about Icelandic individuals' attitudes toward abortion and whether there was a difference between genders, age groups, feminism, and whether the individual knew someone who had received an abortion. The goal was also to find out in which circumstances the Icelandic public found it acceptable for a woman to have an abortion.

Prior research has indicated that females have a more positive attitude toward abortion than males (Olaitan, 2011; Patel & Johns, 2009; Scott, 1998). Comparably, the

current study found that the female participants had higher mean abortion attitude scores on all three factors. The first hypothesis, which stated that Icelandic females had a more positive attitude toward abortion, was therefore supported. The reasons why females have more positive attitudes toward abortion may be because females have to carry and care for the child if the abortion would not be received. Other reasons may be that they want to control their own fertility and have a say in controlling their own body (Adler et al., 1992; Faria et al., 1985; Goodwin & Ogden, 2007).

Research has also shown age differences in abortion attitudes. Some research has found that individuals aged 18-64 have the most positive attitude toward abortion, while individuals older than 64 and adolescents and teenagers have the worst attitudes (Adebayo, 1990; Altshuler et al., 2015; Esposito & Basow, 1995; Scott, 1998; Smith & Son, 2013). Similarly, the current study found that the younger the participant, the more positive the attitude. The worst abortion attitude was found in the age group 54-65 years. The second hypothesis was that younger Icelandic individuals would have a more positive attitude toward abortion than older individuals. This hypothesis was supported. Perhaps younger people have a more positive attitude toward abortion because of the relevancy of abortion in today's society; abortion is a very strong object of discussion in the media today. However, older people are more likely to have grown up with discussions of abortions being shameful and wrong (Conti & Cahill, 2017). Abortions are also more relevant for younger people as they would possibly be the likelier individuals receiving abortions (Quinton et al., 2001).

The third hypothesis was that the individuals who reported levels of feminism had a more positive attitude toward abortion. Previous studies showed a link between high levels of feminism and a more positive abortion attitude (Smyth, 2002; Strickler & Danigelis, 2002). The current study found that the higher the level of feminism, the more positive the attitude toward abortion. Thus, the third hypothesis was supported. Being a feminist might have a

positive impact on abortion attitudes as the whole feminist movement is about equal rights for men and women and abortion falls under women's rights (Fine, 2006).

The fourth and final hypothesis was that knowing someone who had received an abortion would positively influence one's attitude toward abortion. Prior research has shown an association between the two (Biggs et al., 2017; Jelen & Wilcox, 2003; Jones et al., 2013). However, the current study did not find a significant difference in abortion attitudes between those who knew someone who had received an abortion before and those who did not.

There were a few limitations to this study. The participants were mainly female and in the age range 18-25. A better-dispersed sample with a more equal gender ratio and a more diverse age range would have been better as the results would have been more generalizable. Also, the participants were recruited using a convenience sample which could be seen as a limitation. Additionally, the questionnaire was rather long and difficult to answer as the subject of abortions may be sensitive and difficult for some. The study, however, also had strengths; it provided information about Icelandic individuals' attitudes toward abortion, which had yet to be examined prior to this study.

Further research on the topic is important and needed. A more generalizable sample received from a random sampling method, with a wide and diverse age range and an equal gender ratio, would be ideal for future research on the subject. Perhaps a better suitable measurement instrument for the Icelandic public is needed for future research as the measurements used were made with the public in the United States in mind, which is arguably very different culture-wise from Iceland. It would be interesting to research what factors cause one's attitude toward abortion, whether that be, for example, education, knowledge of the subject, or family attitudes.

To summarize, the current study provides new information about abortion attitudes among the Icelandic public. The results revealed that among Icelandic individuals, younger

feminist females tend to have the most positive attitude toward abortion. Therefore, according to the results from this study, older non-feminist males would generally have the worst attitude toward abortion.

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