Differences in Masturbation Habits among Men and Women in Iceland
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.

This thesis was completed in the Spring of 2020 and may therefore have been significantly impacted by the COVID-19 pandemic. The thesis and its findings should be viewed in light of that.
Abstract
This study examined differences in masturbation habits, including the frequency of
masturbation and pornography use, amongst men and women in Iceland. Participants in the
study were university students, 18 years of age and older, who answered an anonymous
online questionnaire sent to their university email address. A total of 245 students
participated; 126 males and 119 females. Most of the participants were married or in a
relationship (N = 145) and 91.4% of the participants were heterosexual. For statistical
analysis, a t-test, independent samples t-test and a chi-square test was used. The results of
this study revealed that there is a difference between men and women when it comes to
masturbation habits. Men masturbate much more frequently than women. However, majority
of the participants had masturbated at some point in their lives.
Keywords: Masturbation, masturbation habits, gender differences, pornography, and sexual
pleasure

Útdráttur
Í þessari rannsókn var skoðaður munur á sjálfsfróunarvenjum, meðal annars tíðni
sjálfsfróunar og klám notkun, meðal karla og kvenna á Íslandi. Þátttakendur rannsóknar voru
háskólanemar, 18 ára og eldri, sem svöruðu nafnlauþri netkónnun sem send hafði verið á
háskólanetfang þeirra. Samtals tóku 245 nemendur þátt; 126 karlar og 119 konur. Meiri hluti
þátttakendanna var kvæntur eða í sambandi (N = 145) og 91.4% þátttakendanna voru
gagnkynhneigðir. Fyrir tölfraðilega greiningu voru t-próf, óháð t-próf og kí-kvadrat próf
notuð. Niðurstöður þessarar rannsóknar leiðdu í ljós að það er munur meðal karla og kvenna
þegar það kemur að sjálfsfróunarvenjum. Karlar stunda mun oftar sjálfsfróun en konur.
Hinsvegar, hafði meiri hluti þátttakenda stundað sjálfsfróun á einhverjum tímapunkti í lífinu.
Lykilorð: Sjálfsfróun, sjálfsfróunarvenjur, kynjamunur, klám og kynferðisleg ánægja
Differences in Masturbation Habits among Men and Women in Iceland.

Throughout history, religion and societies have stigmatized masturbation, a behavior considered immoral, and one that could lead to diseases or even death (Laqueur, 2003; Regnerus, Price & Gordon, 2017). The term “masturbation” comes from the Latin word “masturbari” and is defined as “disruption by hands or self-defile” (Patton, 1986, p. 291-302).

In the 20th century, negative views of masturbation in modernized Western cultures began to change and attitudes towards masturbation became more positive, as a result of the women’s liberation and gay rights movements, in addition to increased knowledge of sexually transmitted diseases (Laqueur, 2003). Coleman (2003) concludes that the negative traditional attitudes towards masturbation are changing and that the debate over masturbation is becoming more positive. Further argues that since masturbation has been linked to sexual health that it should be a part of public health policies to improve the sexual health of the community (Coleman, 2003).

Nowadays, the concept masturbation refers to a conscious self-stimulation of the genital area which leads to pleasure and usually orgasm (Hoseini, 2017, p. 2076-2081). Masturbation is a very common, safe and healthy sexual activity that can improve sexual health (Arafat & Cotton, 1974; Dodson, 1987; Gerressu, Mercer, Graham, Wellings, & Johnson, 2008). Hence, it is also an easy way to please oneself without getting emotionally attached to others (Rye & Meaney, 2007).

Masturbation is considered an important factor in the formation of sexual maturity for both men and women (Horne & Zimmer-Gembeck, 2005). Not only does masturbation increase the individual’s knowledge about their own sexual pleasure, it can also improve self-esteem, confidence and overall happiness (Coleman, 2003; Smith, Rosenthal, & Reichler, 1996). Carvalheira and Leal (2013) found out that females are likelier to have an orgasm during masturbation than in sexual activity with a partner, whereas men can more easily have an orgasm while masturbating and in partnered sex.
In the past, research has found a great gender difference in the incidence of masturbation, with men reporting greater frequency of masturbation than women (Gerressu et al., 2008; Herbenick et al., 2010; Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953). In the mid-twentieth century, Alfred C. Kinsey conducted a couple major research projects studying human sexuality, finding that 92% males and 62% females had masturbated at least once in their lifetime (Brown & Fee, 2003). Hyde (2005), reported similar findings and stated that there is still a big gender gap when it comes to masturbation even though men and women are almost equal when it comes to other sexual behaviors. As attested by Das (2007) the gender difference in masturbation frequency in the U.S. is great, since only 38% of women reported having masturbated in the previous year compared to 61% of men. Another study from the U.S. in 2010 yielded similar results, when only 48% of women reported that they masturbated regularly, compared to 92% of men (Higgins et al., 2010). Similarly, only 71% of women in Britain reported having ever masturbated during their lifetime, compared to 95% of men (Gerressu et al., 2008). Moreover, a previous U.S.-based research effort involving the „National Survey of Sexual Health and Behaviour“ showed that masturbation is very common among young adults, with approximately 90% of men and 80% of women reporting having masturbated at least at once in their life (Herbenick et al., 2010). A recent study from Iceland revealed that 98% of Icelandic women, where the average age was 30 years, had masturbated at some point over the year (Hilmarsdóttir, 2017).

Researchers have different ideas about what causes these differences in masturbation frequency as there are multiple plausible factors that can impact masturbation behavior, for instance, social and biological factors (Gerressu et al., 2008; Herbenick et al., 2010; Kontula & Haavio-Mannila, 2003; Leitenberg, Detzer, & Srebik, 1993). However, more studies on the topic is necessary because what causes these differences in masturbation frequency is not yet well understood (Baldwin & Baldwin, 1997). According to Leitenberg and Henning (1995),
boys discover their genitals and their sexual responses at a younger age, as a result, start masturbating sooner than girls (Træen & Samuelson, 2007). While girls are often more sexually oppressed and a reason for that could be that parents and teachers trying to stop any sexual curiosity in an effort to prevent pregnancy (Gerressu et al., 2008; Herbenick et al., 2010). Another factor, regarding the gender difference, could be that boys handle their penises every day and their genitals are so much more exposed, making them more familiar (Gray, 2013, p. 221).

Masturbation has been a neglected subject when it comes to research and education in schools, despite its importance to sexual health and wellbeing (Coleman, 2003; Horne & Zimmer-Gembeck, 2005). According to a study by Kaestle & Allen (2011) it is very rare for young people to receive any education on masturbation, neither from schoolteachers nor their parents. This is especially true for girls who learn about pleasuring themselves after receiving sexual gratification when something presses against their genitals, or later in life through a friend or a lover (Leff & Israel, 1983). boys than girls (Kaestle & Allen, 2011). Similar beliefs are present in Icelandic study conducted by Kolbrún Gunnarsdóttir et al. The results showed that 16 years old boys found masturbation much more important than girls (Kolbrún Gunnarsdóttir et al., 2008).

People use different methods to stimulate and pleasure themselves for instance, sex toys, erotic materials, such as magazines or pornography (Driemeyer et al., 2017; Fahs & Swank, 2013; Rye & Meaney, 2007). Wallmyr and Welin (2006) state that men watch porn to masturbate, however, women do it for the sake of curiosity. A study conducted in Denmark on young adults demonstrated a significant gender difference in the use of pornographic material while masturbating, men were not only more likely to start using porn while masturbating at a younger age than women, but they also used porn more frequently than women (Hald, 2006). Women were more likely to use porn when accompanied by a
partner (Hald, 2006). In a study conducted by Miller, McBain, Li and Raggatt (2019) revealed that participants thought pornography had unrealistic expectations toward sex.

Even though porn is more accepted by modernized societies nowadays, a substantial proportion of women are not comfortable watching porn on their own, though they find it acceptable to watch as a part of a sexual act with a regular sexual partner (Hald, 2006). The reason for that might be that porn is most commonly produced to fulfill a man’s sexual fantasies and, often shows gender stereotypes (Hald, 2006).

Coleman (2003) stated that further research was needed to look into the effects of masturbation on sexual satisfaction and methods of using masturbation to encourage sexual health. It is important to reduce negative attitudes and thereby eliminating the stigma regarding masturbation with increased education and research (Coleman, 2003). This is the first study done in Iceland that focuses on gender differences when it comes to masturbation habits. Further studies in Iceland are needed on that topic since studies done in Iceland have mostly focused on female’s masturbation habits (Hilmarsdóttir, 2017; Ægisdóttir, 2016).

The main objective of this study was to examine whether there was a difference in masturbation frequency and pornography use among men and women in Iceland. The following hypotheses will be examined:

1. Majority of people have masturbated at some point in their life
2. Men masturbate more often than women
3. People in relationships masturbate less frequently than those who are single
4. Men start to masturbate earlier in life than women
5. Men use pornography more often than women
6. People that are single are more likely to watch pornography
Method

Participants

The Participants were 245 university students based in Iceland; 126 males (51.4%) and 119 women (48.6%). The age ranged from 18 years and older, with most participants were between 18 – 27 years of age (67.8%) Table 1 shows the age of the participants.

Table 1.

The age of the participants

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-22</td>
<td>72</td>
<td>29.4</td>
<td>29.4</td>
</tr>
<tr>
<td>23-27</td>
<td>94</td>
<td>38.4</td>
<td>67.8</td>
</tr>
<tr>
<td>28-32</td>
<td>49</td>
<td>20.0</td>
<td>87.8</td>
</tr>
<tr>
<td>33+</td>
<td>30</td>
<td>12.2</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Majority were married or in a relationship (N = 145) and 91.4% of the participants were heterosexual. A convenience sample was used. Participants were asked to voluntarily answer an online questionnaire, that was sent to their university email.

Measures

For data collection, a 11-item questionnaire was created in Google Forms. Nine questions from a 27-item questionnaire were obtained from Arafat and Cotton (1974) and two questions were self-administered. The first four questions asked about demographic characteristics, such as gender identity, sexual orientation, age, and relationship status. Questions five to nine were generally about masturbation practices and were derived from Arafat and Cotton (1974). The first question regarding masturbation practices was: Have you ever masturbated?, the second question was: If yes, how old were you when you started masturbing?, the third question: How often did you masturbate the last month?, the fourth question: what were the reasons for masturbating? The fifth and the last question in this category: How do you feel after masturbating? 10. The last two questions in the questionnaire
were self-administered and regarded pornography use and participants attitude towards pornography. The first question in the category was: do you use porn when you masturbate? And the second and last question was: What is your attitude towards pornography? The dependent variable was masturbation frequency and the independent variables were: the gender of participants, marital status, masturbation age of onset, reasons for masturbation, feelings after masturbating, pornography use while masturbating and attitude towards pornography.

**Procedure**

A link of the questionnaire was sent out to all the current students in The Reykjavík University by the representative at office of registry via email. At the beginning of the questionnaire, participants were able to read information explaining the purpose of the study. Participants gave their informed consent by participating in the study and had were able to discontinue in the study at any time. Participants were asked to voluntarily answer an online questionnaire, that was sent to their university email. At the beginning of the questionnaire, participants were able to read information explaining the purpose of the study as well that the questionnaire was anonymous and that they could discontinue the questionnaire at any time. Participants gave their informed consent by participating in the study. No payment was received for participation in the study. The survey was conducted in Icelandic. The questionnaire was open from the 12th of March 2020 and was closed the 16th of March 2020. When the questionnaire was closed for responses the data was coded into numbers in Microsoft Excel and then for data analysis SPSS was used.

**Statistical analysis**

Descriptive statistics was used to give information about masturbation habits. A t-test and independent samples t- test was to facilitate comparisons, additionally the Chi-Square tests was used to see if there was for example, a gender difference between masturbation frequency and pornography use.
Results

Results from the study revealed that 98.4% ($N = 240$) of participants had masturbated at least once in their life. Of those who had masturbated, 35.7% masturbated once a week or less, 29.9% masturbated 2-3 times a week and 34.3% masturbated four times a week or often. For the multiple choice closed-ended question “the reasons why you masturbate”, the most common answer was sexual pleasure (83.3%) and to relax (75.1%). Most participants felt relaxed (80%) or joyful (50.6%) after masturbating but very few felt restless (1.6%), awkward (6.1%) or ashamed (9.8%).

Only 15.9% male participants masturbated once a week or less compared to 56.8% of women masturbated once a week or less. Majority of the male (52.4%) participants masturbated 4 times per week or often compared to 15% of woman masturbated 4 times per week or often ($\chi^2(2) = 53.29, p < .001$), see Table 2.

Table 2.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Men</th>
<th>%</th>
<th>Women</th>
<th>%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly or less</td>
<td>20</td>
<td>15.9</td>
<td>67</td>
<td>56.8</td>
<td>87</td>
</tr>
<tr>
<td>2-3x a week</td>
<td>40</td>
<td>31.7</td>
<td>33</td>
<td>28.0</td>
<td>73</td>
</tr>
<tr>
<td>4x week or more</td>
<td>66</td>
<td>52.4</td>
<td>18</td>
<td>15.3</td>
<td>84</td>
</tr>
<tr>
<td>Total</td>
<td>126</td>
<td>100.0%</td>
<td>118</td>
<td>100.0%</td>
<td>244</td>
</tr>
</tbody>
</table>

There was a significant difference in masturbation frequency depending on marital status (48.5%, $\chi^2(2) = 22.37, p < .001$). Most participants that were in a relationship or married masturbated weekly or less frequently (46.9%), but most single participants masturbated four times a week or more, see Table 3.

Table 3

<table>
<thead>
<tr>
<th>Frequency of masturbation by marital status</th>
</tr>
</thead>
<tbody>
<tr>
<td>In a Relationship</td>
</tr>
</tbody>
</table>
Most of the men in relationships or married masturbated four times a week or more (77.1%) compared to only 22.9% of women that were in relationships or married masturbate 4 times a week or more (Table 4).

Table 4

<table>
<thead>
<tr>
<th>Frequency</th>
<th>In a Relationship or Married</th>
<th>Single</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly or less</td>
<td>Men 18 % 26.5</td>
<td>Women 50 % 73.5</td>
</tr>
<tr>
<td>2-3x a week</td>
<td>Men 24 % 57.1</td>
<td>Women 18 % 42.9</td>
</tr>
<tr>
<td>4x week or more</td>
<td>Men 27 % 77.1</td>
<td>Women 8 % 22.9</td>
</tr>
<tr>
<td>Total</td>
<td>Men 69 % 47.6</td>
<td>Women 76 % 52.40</td>
</tr>
</tbody>
</table>

A chi-Square test showed that men began to masturbate at a younger age than women ($\chi^2(3) = 28.65, p < .001$). Over half of the male participants (50.8%) had begun masturbating at the age of 12, while only 37.1% of female participants had begun masturbating at that age (Table 5).

Table 5

<table>
<thead>
<tr>
<th>Relationship between genders on masturbation age of onset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>Weekly or less</td>
</tr>
<tr>
<td>2-3x a week</td>
</tr>
<tr>
<td>4x week or more</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
Most participants had watched pornography while masturbating (n = 185; 75.5%). Chi-square test showed that men (92.9%) were more likely to use pornography while masturbating, than women (60.2%), $\chi^2(1) = 36.80$, $p < .001$ (Table 6).

<table>
<thead>
<tr>
<th>Age at First Masturbation</th>
<th>Men</th>
<th>%</th>
<th>Women</th>
<th>%</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 years or younger</td>
<td>21</td>
<td>16.7</td>
<td>17</td>
<td>14.7</td>
<td>38</td>
</tr>
<tr>
<td>11-12 years</td>
<td>43</td>
<td>34.1</td>
<td>26</td>
<td>22.4</td>
<td>69</td>
</tr>
<tr>
<td>13-14 years</td>
<td>51</td>
<td>40.5</td>
<td>30</td>
<td>25.9</td>
<td>81</td>
</tr>
<tr>
<td>15 years or older</td>
<td>11</td>
<td>8.7</td>
<td>43</td>
<td>37.1</td>
<td>54</td>
</tr>
<tr>
<td>Total</td>
<td>126</td>
<td>100.0%</td>
<td>116</td>
<td>100.0%</td>
<td>242</td>
</tr>
</tbody>
</table>

Participants had different attitudes towards pornography, but majority thought it created unrealistic expectations toward sex (73.9%) and about half of the participants stated that they found pornography enjoyable (50.8%) (Table 7).

<table>
<thead>
<tr>
<th>Attitude towards pornography</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrealistic expectations</td>
<td>73.9%</td>
</tr>
<tr>
<td>Its fun</td>
<td>50.8%</td>
</tr>
<tr>
<td>Made for males</td>
<td>37.1%</td>
</tr>
<tr>
<td>Think it’s disgusting</td>
<td>12.7%</td>
</tr>
<tr>
<td>Made for women</td>
<td>10.2%</td>
</tr>
<tr>
<td>Information for people</td>
<td>9.4%</td>
</tr>
<tr>
<td>Leads to rape</td>
<td>5.7%</td>
</tr>
<tr>
<td>Teaches sex</td>
<td>3.7%</td>
</tr>
<tr>
<td>Prevents prostitution</td>
<td>2.0%</td>
</tr>
</tbody>
</table>
Prevents rape 1.2%
Leads to prostitution 0.0%

There was not a significant difference in the prevalence of watching pornography between participants that were single (83.0%) and participants in a relationship or married (73.4%, $\chi^2(1) = 2.94, p = .058$) (Table 8).

Table 8

<table>
<thead>
<tr>
<th>Pornography Frequency</th>
<th>In Relationship</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Watch pornography</td>
<td>105</td>
<td>73.4</td>
<td>78</td>
<td>83.0</td>
<td>183</td>
</tr>
<tr>
<td>Don’t watch pornography</td>
<td>38</td>
<td>26.6</td>
<td>16</td>
<td>17.0</td>
<td>54</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td>100.0%</td>
<td>94</td>
<td>100.0%</td>
<td>237</td>
</tr>
</tbody>
</table>

**Discussion**

The main purpose of this study was to examine whether there was a difference in masturbation practices between the sexes in Iceland, and if so, what the difference was. Results from the study revealed that 98.4% of participants had masturbated which supports the first hypothesis that most individuals have masturbated at some point in their life and shows a significant difference.

The results of the study showed the men masturbate more frequently than women, which supported the second hypothesis. Interestingly, only about 15.9% male participants masturbated once a week or less compared to 56.8% of women masturbated once a week or less. Majority of the male (52.4%) participants masturbated 4 times per week or often compared to 15% of woman masturbated 4 times per week or often. Several other studies showed similar results (Gerressu et al., 2008; Herbenick et al., 2010; Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953).
The third hypotheses predicted that people in relationships masturbated less frequently than those who were single. Participants that were in a relationship or married masturbated less frequently compared to those who were single and therefore the results supported the third hypotheses.

The fourth hypothesis predicted that men start to masturbate earlier in life than women. When we look at the relationship between genders and at what age they began to masturbate, we see that boys started to masturbate at a younger age than girls, which supported the fourth hypotheses. According to previous studies, researchers believe that these differences are due to biological and social factors. For instance, boys discover their genitals before girls (Coleman, 2003; Gray, 2013; Leitenberg & Henning, 1995; Træen & Samuelson, 2007).

The fifth hypotheses were that men use pornography more often while masturbating than women. Most participants had watched pornography while masturbating (75.5%). Majority of male participants had watched porn while masturbating (92.9%). Even though fewer female participants had watched porn while masturbating, a majority had done so (60.2%). Which supports the fifth hypotheses and shows a significant difference.

Interestingly, most participants believed that pornography led to the viewer developing unrealistic expectations about sex, which was consistent with the results of a study conducted by Miller et. al. (2019).

The sixth hypotheses were that people that are single are more likely to watch pornography while masturbate. The results of my study did not show any significant difference in pornography use between participants that were in a relationship or married and participants who were single.

One of the strengths of this study was the fact that this was the first study of its kind conducted in Iceland that examined the differences in masturbation habits among men and women in Iceland. Hopefully, it will lead to further research into this topic which might help
people to have more open conversations about masturbation habits. Another strength is that the questionnaires were sent to university students via email, so they had the possibility to take the questionnaire in an environment they felt comfortable in.

This study had a few limitations. One of the limitations was that the study was only conducted in one university in Iceland. Another limitation was that masturbation habits could be a sensitive topic for some people and therefore the study might have attracted participants that were already interested in the topic of masturbation and willing and open to discuss it. At the same time, those who are timid about discussing their masturbation habits might have refrained from answering the questionnaire at all and therefore not participated in the study.

In conclusion, the results of a study showed that there is a gender difference in Iceland when it comes to masturbation habits. Even though 99.2% men and 97.5% women had masturbated at some point in their life, men still masturbate more often than women. men also watched pornography more often the women while masturbating. I would like to point out that only 21 participants were homosexual, bisexual, or other. It would therefore be interesting to get a larger sample of non-heterosexual people and compare the masturbation habits to heterosexual people and see if there would be any difference. Furthermore, since the study only included university students it would be intriguing to have larger demographic age range.
References


Kinsey, A. C., Pomeroy, W. B., Martin, C. E., & Gebhard, P. H. (1953). *Sexual behavior in*


practices: Their relationship to sexual intercourse and personal characteristics. 

*Psychological Reports, 79*(2), 499–509. doi:10.2466/pr0.1996.79.2.499


doi:10.1080/14681990601059651


doi:10.1177/10598405060220050801
