Educational Anxiety among University Students in Iceland:
Association with Gender and Educational Level

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Foreword

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

The purpose of the study was to examine the effects of gender and educational level on anxiety related to education, among university students in Iceland. The study was conducted by an online questionnaire, which included demographic questions, questions about anxiety and the shorter version of the Depression Anxiety Stress Scale (DASS21). A total of 123 university students participated in the study, there of 95 females and 28 males. The age range of the participants was from 19-57 years old, and they were either studying for a bachelor degree or a master degree. Results showed that 84.5% of the students experienced moderate to very great anxiety related to their education, with almost 18% who reported very great anxiety. Female students reported on average greater anxiety related to their education compared to male students, and those studying for a bachelor degree reported more educational anxiety on average than those studying for a master degree. The main effects of gender and educational level were though, not significant. No significant interaction between gender and educational level on anxiety related to education was found.

Keywords: Anxiety, university students, college students, mental disorder.
Educational Anxiety among University Students in Iceland: Association with Gender and Educational Level

Mental disorders are rather common in college-age populations (Auerbach et al., 2016; Blanco et al., 2008; Hunt & Eisenberg, 2010). Many researchers have examined the prevalence of psychiatric disorders in university students, which varies across studies. However, it has been estimated that up to half of the students have experienced a mental disorder in the past year (Blanco et al., 2008). According to some studies, it has also been estimated that university students experience higher levels of psychological morbidity than their age-matched controls (Wong, Cheung, Chan, Ma & Tang, 2006).

Steward-Brown et al. (2000) found that university students seem to experience more emotional problems and distress, compared to their non-attending peers. The response rate in this study was rather low, so the conclusions should be taken with some caution. However, Kovess-Masfesty et al. (2016) found that the prevalence of anxiety disorders, agoraphobia and post-traumatic stress disorder (PTSD) was greater among individuals who were not attending college and were not employed, than for individuals who were either attending college or working. No significant differences between the groups were found for other mental disorders, including major depression, psychological distress, panic disorder, substance use disorders and other phobias.

Auerbach et al. (2016) examined both lifetime and 12-month prevalence of mental disorders among college students and their non-attending peers, along with age of onset. They found that approximately 20% of college students had experienced a psychiatric disorder over the last 12 months, and similar results were found for their peers who were not attending college, or 21%. The onset of the disorders was mostly prior to college entry (Auerbach et al., 2016). Because of the early onset of mental disorders, it is possible that psychiatric disorders
can have an effect on whether some individuals continue into college and whether they will graduate or drop out before graduation.

Anxiety disorders usually have their onset in childhood and adolescence (Amaringen, Mancini & Farvolden, 2003), and are among the most common mental disorders people suffer from (Kessler et al., 1994; Polanczyk, Salum, Sugaya, Caye & Rohde, 2015). According to prevalence studies on anxiety, women appear to be more likely to suffer from anxiety than men (Kashani & Orvaschel, 1990; McLean, Asnaani, Litz & Hofmann, 2011). McLean et al. (2011) found that lifetime prevalence of any anxiety disorder were approximately 33% for women, compared to 22% for men. Anxiety disorders also seem to have high rates of comorbidity with other psychiatric disorders, such as other anxiety disorders, depression, substance use disorders and attention deficit hyperactivity disorder (Bernhardsdóttir & Vilhjálmsdóttir, 2013; Biederman, Newcorn & Sprich, 1991; Kashani & Orvaschel, 1990; McLean et al., 2011; Tully & Cosh, 2013).

A lot of university students experience significant amount of stress in university (Brockelman & Scheyett, 2015; Brook & Willoughby, 2016). They seem to experience mostly psychological consequences of stress, such as anxiety, hopelessness, worry and tension (Majumdar & Ray, 2010). Perceived stress among university students is often related to their course assignments, and studies have shown a positive relationship between perceived stress and academic workload (Kausar, 2010). Steward-Brown et al. (2000) found that students worry mostly about their studies or money problems and that their worries appear to be affecting their academic work.

The prevalence rate of anxiety among university students differ between studies, but it appears that most studies show the prevalence to be high (Bayram & Bilgel, 2008; Bernhardsdóttir & Vilhjálmsdóttir, 2013; Wong et al., 2006). Bayram and Bilgel (2008) found that 47.1% of university students experienced anxiety of moderate severity or more. Other
research has also shown a prevalence rate which resemble the results from Bayram and Bilgel (Wong et al., 2006). As for the gender differences in anxiety disorders in the general population, female university students tend to be more prone to experience anxiety symptoms, compared to male university students (Bayram & Bilgel, 2008; Chapell et al., 2005; Dixon & Kurpius, 2008; Wong et al., 2006; Yuelong et al., 2014). Bayram and Bilgel (2008) also examined the associations between study year and anxiety or stress. The results indicated that university students in their first- and second-year were more anxious and stressed than the other students. Chapell et al. (2005) also found that undergraduate students had higher test anxiety than graduate students.

Bernhardsdóttir and Vilhjálmsson (2013) did a study on psychological distress among female university students in Iceland. The results showed that 21.2% of the female students experienced anxiety, which is somewhat lower than in the other study, conducted by Bayram and Bilgel. Bernhardsdóttir and Vilhjálmsson (2013) also found that approximately 60% of the female students who scored above-threshold on anxiety felt that they needed mental health services, but only 26% of them had received professional help. Auerbach et al. (2016) also found that only 16.4% of the students with 12-month history of mental disorders had received any treatment for their disorders over the last 12 months. This suggests that only a small proportion of the college population seeks help for mental health problems.

While it is known that anxiety is common among university students (Bayram & Bilgel, 2008; Bernhardsdóttir & Vilhjálmsson, 2013; Brockelman & Scheyett, 2015; Brook & Willoughby, 2016; Chapell et al., 2005; Dell’Osso et al., 2014; Wong et al., 2006), less is known about gender differences in anxiety in the university population, especially in Iceland. Studies have shown a negative relationship between academic performance and anxiety or stress among university students (Chapell et al., 2005; Hembree, 1988; Steward-Brown et al., 2000), but very little is known about how anxiety might affect academic performance in the
Icelandic university population. The aim of the present study was to examine the relationship of gender, educational level and education-related anxiety, among university students in Iceland. It was also conducted to see if educational anxiety, experienced by university students, was perceived to interrupt their education. In addition, the study was conducted to examine the proportion of students seeking professional help for their anxiety. Based on the above literature, it was hypothesized that: 1) Female students would have more educational anxiety than male students; and 2) Students in lower educational levels would experience more educational anxiety than students in higher educational levels.

**Method**

**Participants**

The participants in the study were students in universities in Iceland, including University of Reykjavik, University of Iceland, University of Akureyri and Bifröst University. The sample was a convenience sample, where participants were volunteers. There were a total of 123 students who participated in the study, 95 females (77.2%) and 28 males (22.8%). The sample had therefore considerably more female university students compared to male university students. The most recent numbers from both the University of Iceland and Bifröst University shows the proportion of female students to be approximately 66%, compared to about 34% of male students (“Heildarskráning nemenda“, 2016; “Tölulegar upplýsingar“, 2016).

Figure 1 shows that the age range of the participants was between 19 and 57 years old ($M = 25.59$, $SD = 5.86$), with valid answers from 104 individuals, because 19 individuals did not report their age. The age distribution of the students was somewhat skewed, where 34.20% of the sample was either 22 or 23 years old (see Figure 1).
EDUCATIONAL ANXIETY AMONG UNIVERSITY STUDENTS IN ICELAND

Figure 1. The age distribution of the sample.

Male students ranged from 20-36 years ($M = 24.96$, $SD = 3.35$) and female students from 19-57 years ($M = 25.78$, $SD = 6.46$). However, no significant differences in the age range were evident between genders. Of all the university students who participated, 104 were studying for a bachelor degree (85.20%), 18 were studying for a master’s degree (14.80%) and none were pursuing a doctoral degree. As can be seen in Table 1, proportionally more male students were studying for a master degree than female students (see Table 1).

Table 1

<table>
<thead>
<tr>
<th></th>
<th>Bachelor degree</th>
<th>Master degree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>21 (75%)</td>
<td>7 (25%)</td>
<td>28</td>
</tr>
<tr>
<td>Females</td>
<td>83 (88.3%)</td>
<td>11 (11.7%)</td>
<td>94</td>
</tr>
</tbody>
</table>

Almost 38% of the participants reported their relationship status to be single. Approximately 26% of the students were in a relationship but not living with their spouse, about 30% cohabiting and almost 6% married. None of the participants reported being a widow or a
widower. No significant gender difference was related to the relationship status of the students. The participants were not paid for participating. They did all speak Icelandic.

**Instruments and Measures**

The survey was conducted using an online questionnaire at www.surveymonkey.com. The questionnaire included demographic questions, questions about participants’ anxiety and an Icelandic translation of the shorter version of the Depression Anxiety Stress Scale (DASS21) (Lovibond & Lovibond, 1995b). The demographic questions were four and included basic information about the participants, such as age, gender, relationship status and education. Three questions about anxiety were included in the questionnaire. Participants were asked if they experienced anxiety related to their education, where they reported how much, if any, anxiety they experienced on a five point Likert scale. The five point values were from 1 (very little/no anxiety) to 5 (very great anxiety). They were also asked to what extent they believed that the educational anxiety was inhibiting their education. They reported their answers using a five point Likert scale, from 1 (not inhibiting) to 4 (very much inhibiting), whereas 0 meant that the question was not applicable because the participant did not experience any anxiety related to their education. The university students were then asked if they had sought professional help because of their anxiety (Appendix A). The participants were asked to answer all the questions the best they could.

DASS21 is a self-report questionnaire that contains 21 statements, and was used to assess the participants’ symptoms of depression, anxiety and stress (Appendix A). The participant indicates to what extent the statements applied to her or him over the last week, using a four point Likert scale, ranging from 0 (Did not apply to me at all) to 3 (Applied to me very much, or most of the time). Examples of the DASS21 scale items are: 1) “I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion)” and 2) “I was aware of the action of my heart in the absence of physical exertion”
(e.g. sense of heart rate increase, heart missing a beat)”. It is considered to be a reliable and valid test (Ingimarsson, 2010). All of the attention was given to the anxiety symptoms of the participants. As for the other questions, the participants were asked to answer the questions the best they could.

**Procedure**

The survey took place between the 3rd and the 30th of March, in 2017. A link was sent to the student associations of the universities included in the study, and they were asked to forward the link to their students through Facebook. Participants could then get to the questionnaire, where they received information about the study (Appendix B). The participants were informed that if they decided to participate, the data would be used in the study. Also, that their responses from the questionnaire would not be traceable to them. The participants could stop participation at any time, without consequences. The questionnaire started with basic information about the participants. Next, there were the questions about educational anxiety experienced by the participants. Finally, the questionnaire ended with the DASS21 questionnaire (Appendix A). After the participants had completed the whole questionnaire, they pressed a button to send their answers.

Permission to conduct the survey was granted by the National Bioethics Committee (nr. VSN-16-191).

**Design and Data Analysis**

The study was conducted to investigate gender differences in educational anxiety, among university students. Also to see whether educational level is relevant when it comes to anxiety related to students‘ education. Then, the independent variable of the study was the gender of the individuals. The other independent variable was the educational level of the participants. The dependent variable was anxiety related to education. In addition, possible
gender differences were examined in relation to the anxiety symptoms from the DASS21 questionnaire.

The study was cross sectional and correlational, the individual only answered the questionnaire once. The statistical program IBM Statistical Package for the Social Sciences (SPSS) was used to analyze the data. Descriptive statistics were calculated and correlations between the variables were tested. The severity ratings for the anxiety symptoms from the DASS21 questionnaire was found, based on the Icelandic standards (Ingimarsson, 2010). Factorial analysis of variance (FANOVA) was used to investigate the associations between anxiety related to education, educational level and gender. The significance level was set at the criterion of $\alpha = .05$.

**Results**

The educational level of the university students was assessed, and they were either studying for a bachelor degree or a master degree. One invalid answer was among the 123 individuals participating in the survey, leaving 122 valid answers. Of all the valid answers, there were 85.20% studying for a bachelor degree and 14.80% studying for a master degree. There were proportionally more males studying for a master degree than females, showing that 25% of the male students were studying for a master degree compared to 11.70% of females. These differences on educational levels between genders, were not significant.

The severity ratings of anxiety symptoms in the DASS21 questionnaire were found from the measures, according to the Icelandic standards (Ingimarsson, 2010). The minimum value observed among the participants was zero, while the maximum value was 36 ($M = 7.98$, $SD = 8.28$). As Table 2 demonstrates, participants having normal anxiety symptoms were 71 (57.72%) in total, there of 50 (40.65%) female students and 21 (17.07%) male students.
Students having severe anxiety symptoms were $15$ ($12.22\%$), with only $3$ ($2.44\%$) of them being male students. Nine ($7.32\%$) of the female students had extremely severe anxiety symptoms compared to none of the male students (see Table 2). There were significant gender differences on the severity ratings on anxiety symptoms from the DASS21 questionnaire, $F(1, 121) = 4.90, p = .03$.

Table 2

Anxiety symptoms from the DASS21 questionnaire.

<table>
<thead>
<tr>
<th>DASS21 anxiety symptoms</th>
<th>Females (N)</th>
<th>Males (N)</th>
<th>Total (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>50</td>
<td>21</td>
<td>71</td>
</tr>
<tr>
<td>Mild</td>
<td>8</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Moderate</td>
<td>16</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Severe</td>
<td>12</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Extremely severe</td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
</tbody>
</table>

Table 3 shows how participants perceived their anxiety to be related to their education. As can been seen, only $5.69\%$ experienced no anxiety or very little anxiety in relation to their education. Participants experiencing moderate to very great anxiety were $84.50\%$ of the whole sample. Almost $18\%$ of the students reported that they experienced very great anxiety related to their education. Table 3 also illustrates that about $21\%$ of male students reported their educational anxiety to be very great, compared to approximately $17\%$ of female students. Furthermore, $14.29\%$ of male students reported having very little or no educational anxiety compared to only $3.16\%$ of the female students (see Table 3). However, gender difference on education-related anxiety was found to be statistically non-significant. No missing data was associated with this question.
Table 3

The frequency and percent of participants experiencing anxiety related to their education.

<table>
<thead>
<tr>
<th>Educational anxiety (value)</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Very little/no anxiety (1)</td>
<td>4 (14.29%)</td>
<td>3 (3.16%)</td>
<td>7 (5.69%)</td>
</tr>
<tr>
<td>Little anxiety (2)</td>
<td>3 (10.71%)</td>
<td>9 (9.47%)</td>
<td>12 (9.76%)</td>
</tr>
<tr>
<td>Moderate anxiety (3)</td>
<td>12 (42.86%)</td>
<td>37 (38.95%)</td>
<td>49 (39.84%)</td>
</tr>
<tr>
<td>Great anxiety (4)</td>
<td>3 (10.71%)</td>
<td>30 (31.58%)</td>
<td>33 (26.83%)</td>
</tr>
<tr>
<td>Very great anxiety (5)</td>
<td>6 (21.43%)</td>
<td>16 (16.84%)</td>
<td>22 (17.89%)</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>95</td>
<td>123</td>
</tr>
</tbody>
</table>

When taking account of only individuals who had moderate or more severe symptoms of anxiety according to the DASS21, Pearson correlation coefficient revealed a significant correlation between anxiety scores on the DASS21 and educational anxiety, $r(40) = .43, p = .005$.

When asked whether the participants thought that the educational anxiety they experienced would inhibit their education, 13 participants (10.56%) reported “no, not at all” and 40 participants (32.53%) said “not much”. However, there were 42 participants (34.15%) who reported that the anxiety would inhibit their education “pretty much” and 27 (21.95%) who said “very much”. Only one participant reported that the question was not applicable because they did not experience any anxiety. No significant difference was apparent between genders. There were a total of 42 university students (34.43%) who had sought professional help because of their anxiety and 69 (56.56%) who had not. Eleven of the students (9.02%) reported the question not applicable because they did not experience any anxiety. There was
one invalid answer to that question. No gender difference was found, regarding whether students had sought professional help or not because of anxiety.

A factorial analysis of variance (FANOVA) was made, to estimate the main effects and interaction of gender and educational level on perceived anxiety related to their education. As can been seen in Table 4, female students were always higher on education-related anxiety, even when educational level was considered. Also, male students studying for a bachelor degree had more educational anxiety than male students studying for a master degree. Similar results were for the female students, those studying for a bachelor degree had more anxiety related to their education than female students studying for a master degree (see Table 4).

Table 4

*Anxiety related to education, in terms of gender and educational level of participants.*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Educational level</th>
<th>Educational anxiety</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>Bachelor degree</td>
<td>3.29</td>
<td>1.31</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Master degree</td>
<td>2.71</td>
<td>1.25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.14</td>
<td>1.30</td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>Bachelor degree</td>
<td>3.49</td>
<td>0.96</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Master degree</td>
<td>3.36</td>
<td>1.21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.48</td>
<td>0.98</td>
<td></td>
</tr>
</tbody>
</table>

However, the main effect of gender was not significant, $F(1, 118) = 2.22, p = .14$, nor was the main effect of educational level, $F(1, 118) = 1.49, p = .23$. The interaction between gender and educational level were also not significant, $F(1, 118) = 0.59, p = .45$. 
The assumption for normal distribution was not met. Using a Kolmogorov-Smirnov test, the anxiety related to education did deviate significantly from normal for both female students $D(94) = .21, p < .001$, and for the male students $D(28) = .22, p < .001$. The anxiety related to education did also deviate significantly from normal for students studying for a bachelor degree $D(104) = .21, p < .001$, but was marginally significant for students studying for a master degree $D(18) = .20, p = .049$. The assumption of homogeneity was met, according to the Levene's test for the educational anxiety across gender and educational level $F(3, 118) = .85, p = .47$.

**Discussion**

Prevalence studies of mental disorders among university students, all show the prevalence rate to be high, even though the prevalence differ between studies. For example, Blanco et al. (2008) found that up to half of all students have experienced a mental disorder over the past year. Anxiety disorders are among the most common mental disorders that individuals manifest (Kessler et al., 1994; Polanczyk et al., 2015). The present study indicated that approximately 34% of participating university students in Iceland experienced anxiety symptoms of moderate severity or above, according to the results from the DASS21 questionnaire. The proportion of students experiencing anxiety symptoms of moderate severity or above, in this study, is considerably less than Bayram and Bilgel (2008) found. They found that approximately 47% of university students experienced anxiety symptoms of moderate severity or above. However, the proportion of students experiencing anxiety in the current study, was higher than in the research conducted by Bernhardsdóttir and Vilhjálmsdóttir (2013), on female university students in Iceland. Their results showed that about 21% of the female students experienced anxiety. They did not use the DASS questionnaire to measure anxiety symptoms among the females, so that could have taken account in this substantial difference between the studies.
From all the literature that exists about prevalence of anxiety among university students, it is evident that anxiety disorders are common among the university population (Bayram & Bilgel, 2008; Bernhardsdóttir & Vilhjálmsdóttir, 2013; Brockelman & Scheyett, 2015; Brook & Willoughby, 2016; Chapell et al., 2005; Dell’Osso et al., 2014; Wong et al., 2006). Results from this study showed that 84.5% of the participants reported moderate to very great education-related anxiety. Also, approximately 56% of the participants said that the educational anxiety they experienced interrupted their education “rather much” or “very much“. Other research has showed that students suffering from anxiety disorder are more likely to have academic underachievement (Amaringen et al., 2003).

In this research, anxiety scores from the DASS21 questionnaire, of individuals who had moderate to extremely severe anxiety symptoms, were compared to education-related anxiety. According to the results, there was a positive relationship between the DASS21 score and educational anxiety. This indicates, that the more severe score individuals had on anxiety symptoms from the DASS21 questionnaire, the more educational anxiety they experienced.

Kovess-Masfesty et al. (2016) found that the prevalence for anxiety disorders, agoraphobia and PTSD was greater among individuals who were not employed and not attending college, which might indicate that these individuals are more vulnerable for certain psychiatric disorders than individuals who are either in college or employed. It could also mean that individuals who have psychiatric disorders find it hard to continue into college and have a difficult time finding an employment, because of their psychological problems. It might thus be salient for researchers to find protective factors for high school students, so they can continue their education into university without dropping out or having problems with their academic achievement.

In the general population, anxiety disorders are more prevalent among females, compared to males (Kashani & Orvaschel, 1990; McLean et al., 2011). Also, according to
prevalence studies on anxiety among university students, female students seem to be more likely to manifest anxiety symptoms or disorders than male students (Bayram & Bilgel, 2008; Chapell et al., 2005; Dixon & Kurpius, 2008; Wong et al., 2006; Yuelong et al., 2014). The results from the current study showed that females reported, on average, more anxiety related to education. However, the main effects of gender on educational anxiety was not significant. Thus, the hypothesis about female students having more anxiety related to their education than male students, was not supported. Despite not having significant gender difference on educational anxiety, there was a significant difference between genders on anxiety symptoms from the DASS21 scale. Females reported more anxiety symptoms than males.

Chapell et al. (2005) examined test anxiety among undergraduate and graduate students. Along with the gender differences in test anxiety, where female students showed more test anxiety than male students, they also found that test anxiety varied between educational levels. The results showed that test anxiety among undergraduate students was more prevalent than test anxiety among graduate students. Results from research conducted by Bayram and Bilgel (2008) also showed that university students in their first or second year, experienced more anxiety than university students who were further into their education. These results suggest that students in higher educational levels seem to experience less anxiety compared to students in lower educational levels. The second hypothesis of the current study, that students in lower educational levels had more anxiety related to their education than students in higher educational levels, did not stand. Although the students studying for a bachelor degree, reported on average, greater educational anxiety than students studying for a master degree, the main effect of educational level was not significant.

The proportion of university students who had sought professional help, was rather high in this study compared to other studies. Approximately 34% of the participants reported that they had received help from a professional, because of anxiety. In the Icelandic study, on
the female students, Bernhardsdóttir and Vilhjálmsson (2013) found that about 26% of those experiencing anxiety had sought professional help. Also, Auerbach et al. (2016) found that only 16.4% of students with a history of mental disorder over the last 12 months, had sought professional help over the same time frame. However, Auerbach et al. were not only focusing on anxiety, like the current study, and were just taking account of professional help over the last 12 months. These reasons are possibly a factor contributing to this difference. Even though the proportion of students who had sought professional help in this study, was high compared to other studies, it is still rather low. With both the high prevalence of mental disorders among university students and the low proportions of those who seek help, there appears to be a substantial need for student health services.

There were a few limitations to the study. First, there was a large difference between the number of female students and the number of male students who participated in the study, with females being about 77% of the sample. Student numbers from the University of Iceland and Bifröst University are similar when considering the proportion of female and male university students. Their numbers shows that approximately 66% of the students are females and 34% are males (“Heildarskráning nemenda”, 2016; “Tölulegar upplýsingar”, 2016). However, the University of Akureyri shows that female students are 77.55% of the university students, compared to 22.45% of male students (“Nemendafjöldi“, 2016). Reykjavik University was the only university, included in the study, to have proportionally more male students than female students, or 59.59% males and 40.41% females (“Annual report“, 2016). Second, the sample could also have been skewed, because the majority of the participants were studying for a bachelor degree (85.20%), 14.80% were studying for a master degree, but none of the participants studying for a doctoral degree, which was expected to be included in the sample. There are some limitations to internet surveys, for example not being able to have control over the study conditions. There can be a selection bias in the sample, where only
individuals who have internet access can become part of the sample (Baltar & Brunet, 2012). As the current survey just appeared in closed student groups on Facebook, only individuals who use Facebook could have participated in the survey. Since this is a correlational study, conclusions can not be made about causality. Lastly, there could have been other factors contributing to anxiety related to education, that were not included in this survey. For example, learning disabilities could have had an effect on the anxiety, but this issue was outside the scope of this study.

There were though, also some strengths to the study. Both genders were included in the sample, and potential gender differences were examined. The university students who participated were of all ages, the age range was very large, or from 19-57 years old. Since online surveys are growing in popularity among researchers (Evans & Mathur, 2005; Fang, Wen & Prybutok, 2014), it is important to recognize the strengths regarding those types of surveys. Internet surveys can be powerful instruments when considering the sample size, which is often higher in online surveys than in traditional surveys. Also, to expand the geographical scope of the research (Baltar & Brunet, 2012; Fang et al., 2014). It can reduce the costs of the study, as well as the time spent collecting and processing data (Evans & Mathur, 2005). The current study was anonymous, which could have had an effect on the responses from the participants. It is known that individuals are more likely to answer surveys more honestly, if they know that a survey is anonymous and that their responses can not be traced back to them (Durant, Carey & Schroder, 2002; Ong & Weiss, 2000).

There have not been many studies investigating educational anxiety among university students, and how the anxiety might interrupt the student's education, in Iceland. Because of the large proportion of university students experiencing anxiety related to education, and those who perceive their educational anxiety to inhibit their education, it could be interesting to explore the field more. It could be important for professionals in universities, as for the
students, to know that educational anxiety is very common among university students. That 
might make students less anxious to know that they are not alone experiencing anxiety related 
to their education, and it might make it easier to work with those students and help those in 
need.
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Appendix A

1. Hver er aldur þinn?

2. Hvert er kyn þitt?
   - Karlkyn
   - Kvenkyn
   - Annað

3. Hver er hjúskaparstaða þín?
   - Einhleyyp/ur
   - Í sambandi
   - Í sambúð
   - Gift/ur
   - Ekkill/ekkja

4. Hvar ert þú staddur/stödd í háskólanámi þínu? (Ár og/eða gráða (t.d. BSc))

5. Hversu miklum kvíða finnr þú fyrir tengdum námi þínu?
   - Mjög litlum/engum
   - Litlum
   - Miðlungs
   - Miklum
   - Mjög miklum

6. Heldur þú að kvíðinn hamli þér í náminu á einhvern hátt?
   - Nei, alls ekki
   - Ekki mikið
   - Frekar mikið
   - Já, mjög mikið
   - Á ekki við, er ekki kvíðin/n

7. Hefur þú fengið aðstoð frá fagaðila (t.d. sálfræðing, geðlækni, námsráðgjafa) vegna kvíðans?

<table>
<thead>
<tr>
<th>Íbreytingar</th>
<th>Átti alls ekki við mig</th>
<th>Átti við mig að einhverju leyti eða stundum</th>
<th>Átti töluvert vel við mið eða drjúgan hluta vikunnar</th>
<th>Átti mjög vel við mið eða mest allan tímann</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mér fannst erfitt að ná mér niður</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Ég fann fyrir munþurriki</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Ég virtist alls ekki geta fundið fyrir neinum göðum tilfinningum</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Ég átti í erfiðleikum með að anda (t.d. allt of hröð óndun, marði án líkamlegrar áreynslu)</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Mér fannst erfitt að hleypa í mig krafti til að gera hluti</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Ég haði tilheiningu til að bregðast of harkalega við aðstæðum</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Ég fann fyrir skjalfta (t.d. í höndum)</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Mér fannst ég eyða mikilli andlegri orku</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Ég haði áhyggjur af aðstæðum þar sem ég fengi hreðslukast (panik) og gerði mig að fflí</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Mér fannst ég ekki geta hlakkað til neins</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Ég var ergileg(ur)</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Mér fannst erfitt að slappa af</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Ég var dapur/döpur og niðurdregin(n)</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Ég þoldi ekki þegar eitt hvaða í veg fyrir að ég heldi áfram við það sem ég var að gera</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Mér fannst ég nánast gripin(n) skelfingu</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Ég gat ekki fengið brenndandi áhuga á neinu</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Mér fannst ég ekki vera mikils virði sem manneskja</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Mér fannst ég frekar hörundsár</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Ég varðar við hjartsláttinn í mér þó ég hefði ekki reyn að mig (t.d. hraðari hjartsláttur, hjartað sleipti úr slagi)</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Ég fann fyrir ötta án nokkurra skynsamlegrar ástæðu</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
<tr>
<td>Mér fannst lífði vera tilgangslaust</td>
<td>c</td>
<td>c</td>
<td>c</td>
<td>c</td>
</tr>
</tbody>
</table>
Rannsóknin: Forathugun á kynjamun í kvíða medal háskólanemenda á Íslandi

Kæri viðtakandi,


Með því að svara spurningalistanum samþykkir þú að hafa lesið ofangreinda lýsingu á rannsókninni og að þú gerir þér grein fyrir skilyrðum þátttöku þinnar.
Ábyrgðarmaður og leiðbeinandi rannsóknarinnar er dr. María K. Jónsdóttir dósent við sálfræðisvið Háskólans í Reykjavík, Menntavegi 1, tölvufang: mariakj@ru.is sími: 8617894

Rannsakandi þessarar rannsóknar og nemandinn er Hanna Lára Harðardóttir, tölvufang: hannalh14@ru.is, sími: 8980102. Dr. Brynja Björk Magnúsdóttir, sálfræðingur, hefur veitt samþykki sitt fyrir því að ræða við þátttakendur ef spurningar valda óþægindum (brynjabm@ru.is).

Hægt er að hafa samband við rannsakendur ef einhverjar spurningar vakna.

Rannsóknargögn verða unnin á ópersónugerianlegum grunni, aðeins rannsakendur hafa aðgang að rannsóknargögnum á meðan á úrvinnslu stendur, öllum rannsóknargögnum verður eytt að lokinni rannsókn (júní 2017).

Rannsóknin hefur fengið leyfi Vísindasiðanefndar og verið tilkynnt til Persónuverndar.

Með þókk fyrir þátttökuna,

Aðstandendur verkefnisins