



# **Body Image Concerns and Depressed Mood: A Study on Gender and Sexual Orientation Differences**

Erna Björk Einarsdóttir

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Author: Erna Björk Einarsdóttir

ID number: 170892-2599

Department of Psychology

School of Business

**Foreword**

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## Abstract

Most studies on the associations between gender, sexual orientation and body image have not included bisexual participants in the sample. A poor body image has been associated with eating disorders, anxiety and depression. Previous studies have shown that bisexual women had more depressive symptoms than the general population. The aim of this study was to examine differences in body image and depressed mood on male and female participants of heterosexual, homosexual and bisexual orientation, using a sample of 3048, mostly 16 to 19 year olds, from the population based 2013 Youth in Iceland study. Body image was assessed using 5 items from the Body and Self-Image subscale of the Offer Self-Image Questionnaire. Depressed mood was assessed using 10 items from the depression dimension of the SCL-90. Results revealed that women had a worse body image and more depressed mood than men. Bisexual women had the worst body image and the most depressed mood of all groups. Bisexual and gay men had a worse body image and more depressed mood than heterosexual men. Lesbians did not differ from heterosexual women in body image or depressed mood.

Keywords: *body image, depression, sexual orientation, gender, bisexuality*

## Útdráttur

Flestar rannsóknir á tengslum kyns, kynhneigðar og líkamsímyndar hafa ekki skoðað tvíkynhneigða einstaklinga. Slæm líkamsímynd hefur verið tengd við átraskanir, kvíða og þunglyndi. Fyrri rannsóknir hafa sýnt fram á það að tvíkynhneigðar konur upplifi meiri þunglyndiseinkenni en aðrir. Tilgangur rannsóknarinnar var að skoða mun á líkamsímynd og þunglyndiseinkennum eftir kyni á meðal gagnkynhneigðra, samkynhneigðra og tvíkynhneigðra þátttakenda. Notast var við 3048 þátttakenda úrtak úr þýðisrannsókninni Ungt fólk frá árinu 2013. Þátttakendur voru flestir á aldrinum 16 til 19 ára. Líkamsímynd var metin með 5 spurningum úr Body and Self-Image undirkvarðanum frá Offer Self-Image Questionnaire. Þunglyndi var metið með 10 spurningum úr þunglyndisvídd SCL-90. Niðurstöður gáfu í ljós að konur höfðu verri líkamsímynd og meiri þunglyndiseinkenni en karlar. Tvíkynhneigðar konur höfðu verstu líkamsímyndina og mestu þunglyndiseinkennin af öllum hópum. Samkynhneigðir og tvíkynhneigðir karlmenn höfðu verri líkamsímynd og meiri þunglyndiseinkenni en gagnkynhneigðir karlar. Ekki var munur á lesbíum og gagnkynhneigðum konum á líkamsímynd né þunglyndiseinkennum.

Lykilhugtök: *líkamsímynd, þunglyndi, kyn, kynhneigð, tvíkynhneigð*

### Body Image Concerns and Depressed Mood:

#### A Study on Gender and Sexual Orientation Differences

There have been numerous studies on body image in the last decades. Many of these studies have associated a poor body image or body dissatisfaction with negative effects such as depression and anxiety as well as an increased risk of developing eating disorders (Ferguson, Munoz, Contreras, & Velasquez, 2011; Stice, Marti, & Durant, 2011).

Body dissatisfaction is often measured in studies by the discrepancy between one's body size and one's ideal body size (Armatas, Moran, & Sands, 2003). That discrepancy is often greater amongst women than men, being that women's ideal body size is more often smaller than their current body size, indicating that women have a more negative body image than men, and are in turn, more likely to diet (Armatas et al., 2003; Çatikkas, 2011; Davids & Green, 2011; Ingolfssdottir, Asgeirsdottir, Gunnarsdottir, & Bjornsson, 2014; Paap & Gardner, 2011; Yean et al., 2013).

Many studies have often tried to explain this gender difference in body image with theories such as the objectification theory (Calogero, 2004; Calogero, Pina, Park, & Rahemtulla, 2010; Fredrickson & Roberts, 1997; Heimerdinger-Edwards, Vogel, & Hammer, 2011; Huxley, Halliwell, & Clarke, 2015; Moradi, 2010, 2011). The objectification theory is based on the idea that women are culturally conditioned to mostly rely on an outside perspective to view, and judge their own body, as a result of repeated sexual objectification, which in turn can lead to an array of negative consequences such as eating disorders and depression (Fredrickson & Roberts, 1997).

Based on the objectification theory, the "male gaze" is often described as being the common denominator for women's body image concerns (Chmielewski & Yost, 2013). With the

objectification theory in mind, many studies have examined whether lesbians might be shielded from the “male gaze” resulting in lesser body dissatisfaction than for heterosexual women and whether the opposite case can be made for gay men. Most of these studies have found that gay men are more dissatisfied with their body than straight men (Davids & Green, 2011; Laska et al., 2015; Yean et al., 2013) and more likely to engage in disordered eating (Brown & Keel, 2012). Many studies, however, show conflicting results for lesbians. Some results have indicated that lesbians had less body dissatisfaction than heterosexual women (Koff, Lucas, Migliorini, & Grossmith, 2010; Yean et al., 2013), while others indicated that there was no difference in body dissatisfaction between lesbians and heterosexual women (Davids & Green, 2011; Huxley et al., 2015; Polimeni, Austin, & Kavanagh, 2009).

Previous studies on body image and sexual orientation have often had a rather dichotomous perspective on sexual orientation, where those who could be defined as bisexual were either left out of the studies or grouped with gay men or lesbians (Brown & Keel, 2012; Huxley et al., 2015; Koff et al., 2010). This could have led to rather skewed data since bisexual men and women might differ from gay men and lesbians. The few studies who included bisexuals in the sample found that bisexual women often did not differ in body image concerns compared to heterosexual or lesbian women, but were more likely to engage in harmful weight control practices (Davids & Green, 2011; Laska et al., 2015; Polimeni et al., 2009). Bisexual men have, however, often been found to have similar body dissatisfaction as gay men and had similar eating disorder symptoms (Davids & Green, 2011; Laska et al., 2015).

Depressive symptoms have sometimes been studied in conjunction with body image concerns. The result have often indicated that people suffering from depressive symptoms, were more likely to have body image concerns (Armatas et al., 2003; Stice et al., 2011). Being a

woman or belonging to a marginalized population, for example, being non-heterosexual, has often been associated to increased chances of depressive symptoms (Armatas et al., 2003; Kerr, Santurri, & Peters, 2013; Pyra et al., 2014; Ross, Dobinson, & Eady, 2010; Van de Velde, Bracke, & Levecque, 2010; Wiszniewicz & Wojtyna, 2013). Being bisexual, especially being a bisexual woman, has frequently been related with increased likelihood of depressive symptoms, compared to other sexual orientation groups (Kerr et al., 2013; Li et al., 2015; Wiszniewicz & Wojtyna, 2013). The association between being a sexual minority and having mental health issues has often been thought to be caused by the discrimination sexual minorities face in society (Ross et al., 2010). Bisexual people, however, report feeling not only discrimination from the heterosexual community, but also from the gay community, which some researchers theorize might explain why bisexual people measure highly on mental health issues (Kerr et al., 2013; Ross et al., 2010).

Most studies on the subject of sexual orientation and body image have been conducted on rather homogenous samples, often consisting mostly of university students where either the majority were women or men were not included (Huxley et al., 2015; Koff et al., 2010; Yean et al., 2013). The data used in this study, however, was from a cross sectional, national, population based survey, which should provide a rather homogeneous sample of participants (Pálsdóttir et al., 2014). Identifying who are worst affected by body image concerns and depressive symptoms is important, since both body image concerns and depression can lead to an array of negative consequences and learning more about the population worst affected might help to create better treatments for those people (Ferguson et al., 2011; Stice et al., 2011).

The aim of this study is to examine the differences between people of different sexual orientations and gender, on body image concerns, and depressed mood. Based on the literature

mentioned above, the hypotheses that will be put forward in this research paper are, 1) Women have a worse body image than men, 2) gay and bisexual men have a worse body image than heterosexual men, 3) bisexual women have the worst body image of all groups regardless of sexual orientation or gender, 4) women have more depressive symptoms than men, 5) bisexual people have more depressive symptoms than other sexual orientations groups, 6) gay men and lesbians have more depressive symptoms than heterosexual people, 7) bisexual women have more depressive symptoms than heterosexual women and lesbians.

## **Methods**

### **Participants and Procedure**

The data used in this study were from the 2013 Youth in Iceland, a national survey on Icelandic adolescents conducted by the Icelandic Centre for Social Research and Analysis (ICSRA) (Pálsdóttir et al., 2014.) Overall, 11.116 students completed the survey and the response rate was 75.5% of possible participants. Participating in the study were 5394 boys and 5590 girls, 132 participants did not indicate their gender and their answers were not included in the sample (Pálsdóttir et al., 2014). A random sample was taken for this data analysis, which consisted of 3084 participants. The majority of the participants were born in 1994 – 1997, accounting for approximately 90.8% of the participants, and the mean age was 17.52 (SD = 1.41).

The ICSRA sent questionnaires to every high school in Iceland along with directions for the teachers of each school on how to administer these questionnaires (Pálsdóttir et al., 2014). Passive consent was required to participate in the study (see Appendix A). The teachers administered the questionnaires to their students, and supervised and assisted them, while the students were answering the questionnaires. The students were instructed not to write any

personal information on the questionnaires such as name or social security number to make sure that the answers would not be traceable. Participants were also asked to answer each question to the best of their ability and if they needed any help, they were to ask the teachers. After the participants finished the questionnaire, they were supposed to place the questionnaire into a blank envelope that came with each questionnaire, and seal it (Pálsdóttir et al., 2014).

## Measures

**Youth in Iceland 2013.** The Youth in Iceland 2013 questionnaire was comprised of items and scales that were selected, for their validity and reliability, by the Institute for Educational Research and the ICSRA, (Pálsdóttir et al., 2014). The questionnaire was 35 pages long and consisted of 95 questions (Pálsdóttir et al., 2014).

**Gender.** The *Gender* variable was a nominal variable created from the question “what is your gender?”, which they could answer “male” or “female (see Appendix B).

**Sexual orientation.** The independent variable *Sexual orientation* was comprised of a sexual attraction scale, originally from the Baltic Sea Regional Study on Adolescent’s Sexuality by Mossige, Ainsaar and Svedin (2007) (see Appendix C). The scale started with the statement “some people are sexually attracted to people of the opposite sex, and some to people of the same sex” and had two questions. The first question assessing heterosexual attraction was “where would you put yourself on a scale that measures sexual attraction to the opposite sex?”, and the second question, assessing homosexual attraction was “where would you put yourself on a scale that measures sexual attractiveness to the same sex?”. The participants were instructed to rate each question on a 5-point ordinal scale ranging from 1 = “*I am not attracted to*”, to 5 = “*I am a lot attracted to*”. Participants who answered  $\geq 3$  to the heterosexual attraction question and  $\leq 2$  to the homosexual attraction question, were categorized as “heterosexual oriented”.



Participants who answered  $\geq 3$  to the homosexual attraction question and  $\leq 2$  to the heterosexual attraction question, were categorized as “homosexual oriented”. Participants, who answered both questions with  $\geq 3$ , were categorized as “bisexual oriented”, and participants who answered both questions with a low score of  $\leq 2$  were excluded from the data due to their seemingly lack of interest in either sex.

**Body image.** The dependent variable *Body image* was comprised of 5 items relating to body image from the Body and Self-Image subscale of the Offer Self-Image Questionnaire (OSIQ) (Offer, Ostrov, & Howard, 1977) (see Appendix D). The items were “I am happy with my body”, “I am happy with the physical changes that have occurred to my body in the last few years”, “I think I am strong/healthy”, “when I think about how I will look in the future, I am happy” and “I often think I am ugly and unattractive”. Participants answered each question on a 4-point likert scale ranging from 1 = “describes me not at all” to 4 = “describes me very well”. Asgeirsdottir, Ingolfssdottir, and Sigfusdottir, (2012) found that the five item body image scale had an adequate internal consistency (Cronbach's alpha = .74 – .77) and that the results from factor analysis reinforced that the scale was a single factor, indicating the importance of all the items.

The item “I often think I am ugly and unattractive” was coded in reverse. Then all the items were added together into a new continuous variable ranging from 0 to 15, which was then coded in reverse, so that a higher score on the body image scale would indicate that the participant had a higher body image. Cronbach’s alphas for the 5 item body image subscale were .82 indicating that the reliability was high, while the full 7 item Body and Self-Image was not as reliable ( $\alpha = .42$ ).

**Depressed mood.** The dependent variable *Depressed mood* was comprised of 10 items

from the depression dimension of the Symptom Checklist-90 (SCL-90), which is a multidimensional self-report symptom inventory (see Appendix E) (Derogatis & Cleary, 1977; Derogatis, Lipman, & Covi, 1973). A study by Schmitz, Kruse, Heckrath, Alberti, & Tress (1999) found that the depression subscale of the SCL-90 had an satisfactory concurrent validity for diagnosing depression.

The participants were asked “how often have you been bothered or distressed by these symptoms in the last 30 days?”. The symptoms included “thoughts of ending life”, “feeling low in energy or slowed down”, “poor appetite”, “crying easily or wanting to cry”, “feeling no interest in doing anything”, “feeling lonely”, “trouble falling asleep or staying asleep”, “feeling hopeless about the future”, “feeling sad or having little interest in doing something”, “you were sad or felt down”. The participants then rated each question on a 4-point ordinal scale ranging from 1 = “*almost never*” to 4 = “*frequently*”. The answers were added together to create a new continuous variable ranging from 0 to 30, with a higher number reflecting more depressed mood. Cronbach’s alphas for the depression dimension of the SCL-90 were .91 indicating that the reliability of the scale was high.

### **Research Design and Data Analysis**

Two separate Factorial ANOVA’s (FANOVA) were conducted to compare the main effects of gender and sexual orientation and the interaction effects between gender and sexual orientation on the dependent variables depressed mood and body image. The study design was 3 x 2 x 2 independent factorial design, where the independent variable gender consisted of two levels, males and females, and the independent variable sexual orientation, consisted of three levels, heterosexual orientation, homosexual orientation and bisexual orientation.

All the assumptions of FANOVA were met, except for the assumption of homogeneity of variance, and the assumption of normality for both the dependent variables. The *Levene's* test results for depressed mood,  $F(5, 2786) = 15.54, p < .001$ , and for body image,  $F(5, 2786) = 7.18, p < .001$ , indicated that the group variances were unequal. *Shapiro-Wilk* test results indicated that dependent variables depressed mood ( $D(2954) = 0.91, p < .001$ ) and body Image ( $D(2948) = 0.97, p < .001$ ) were not normally distributed. A histogram of the distribution of depressed mood scores indicated that the distribution had a highly positive skew and was rather leptokurtic, indicating that most of the participants had few if any depressive symptoms. The non-normal distribution might be caused by the depression dimension subscale of the SCL-90 ability to measure only negative affect but not positive ones, which might result in lesser chance of it being normally distributed. When looking at a histogram of the distribution of body image scores the distribution had a slight negative skew, indicating that more participants had a good or an okay body image and that not many participants had a low body image. The distribution was also slightly leptokurtic, due the most participants having a score of 9 on the body image scale.

## Results

### Descriptive statistics

The number of participants who were identified as either heterosexual, homosexual or bisexual oriented are shown in Table 1 according to gender. Female participants consisted of 50.63% of the sample. Approximately 88.33% of the participants were identified as heterosexual oriented, of which 48.73% were males. Approximately 3.18% were identified as homosexual oriented, of which 39.56% were males.

Table 1

*Number of Participants in each Sexual Orientation and Gender Group*

SO	Gender		All
	Male	Female	
Heterosexual	1232	1280	2528
Homosexual	36	55	91
Bisexual	72	177	249
All	1340	1512	2862

*Note.* SO = *Sexual Orientation*.

About 8.70% were bisexual oriented, of which 28.91% were males.

Table 2 shows the means and the standard deviations of the dependent variables depressed mood and body image. The mean of depressed mood indicated that most participants had few depressive symptoms. The standard deviation indicated that the variability was rather high amongst participants.

Table 2

*Means and Standard Deviations of the Dependent Variables Depressed Mood and Body Image*

	<i>M</i>	<i>SD</i>
Depressed mood	8.52	7.30
Body image	9.35	3.23

The mean of the dependent variable body image indicated that most participants had an okay or good body image and the standard deviation indicated that variation was rather low.

### **Body image**

Means, standard deviations and the number of participants from FANOVA's results from the body image scale are reported in Table 3. There was a significant main effect of gender on body image scores,  $F(1, 2786) = 23.89, p < .001$ , partial  $\eta^2 = .009$ . Females ( $M = 8.37, SD =$

3.25) had significantly lower body image scores than males ( $M = 10.35$ ,  $SD = 2.89$ ).

There was also a significant main effect of sexual orientation on body image scores  $F(2, 2786) = 12.58$ ,  $p < .001$ , partial  $\eta^2 = .009$ .

Table 3

*Means, Standard Deviations and Number of Participants of Body Image Scores for Gender and Sexual Orientation*

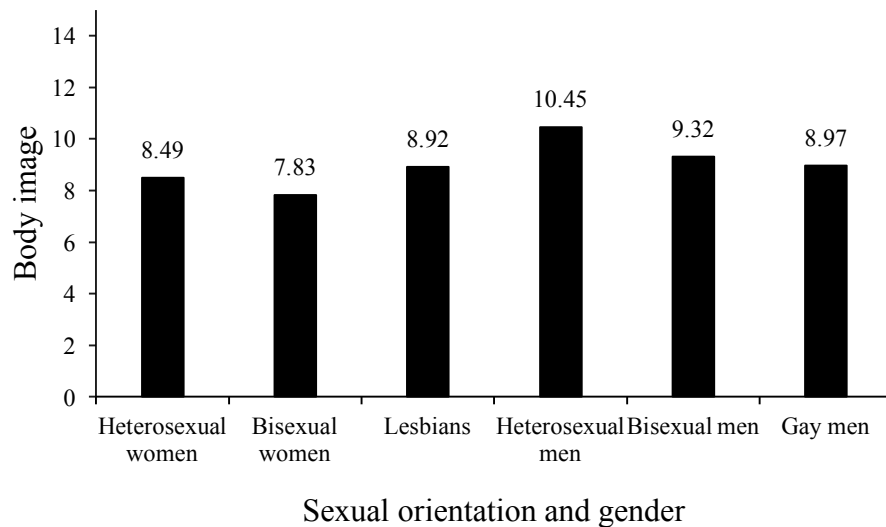
SO	Gender						All		
	Male			Female			<i>M</i>	<i>SD</i>	<i>n</i>
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
Heterosexual	10.45	2.84	1206	8.49	3.21	1259	9.45	3.19	2465
Homosexual	8.97	3.78	36	8.92	2.95	53	8.94	3.29	89
Bisexual	9.32	2.87	66	7.83	3.47	172	7.92	3.42	238
All	10.35	2.89	1308	8.37	3.25	238	9.30	3.24	2792

*Note.* SO = *Sexual Orientation*.

Bonferroni *post hoc* test revealed that heterosexual oriented people ( $M = 9.45$ ,  $SD = 3.19$ ) had significantly higher body image scores than bisexual oriented people ( $M = 7.92$ ,  $SD = 3.42$ ) ( $p < .001$ ). Homosexual oriented people ( $M = 8.94$ ,  $SD = 3.29$ ) also had significantly higher body image scores than bisexual oriented people ( $p = .022$ ). There, however, was no difference between heterosexual oriented people and homosexual oriented people on body image scores ( $p = .388$ ).

Figure 1 shows means for body image scores for each sexual orientation according to gender. There was a significant interaction between gender and sexual orientation on body image scores,  $F(2, 278) = 4.04$ ,  $p = .018$ , partial  $\eta^2 = .003$ , indicating that males and females

differed in body image scores across different sexual orientations. When looking at the significance values for each simple effect between males and females according to sexual orientation, heterosexual oriented men ( $M = 10.45$ ,  $SD = 2.84$ ) had a better body image than heterosexual oriented women ( $M = 8.49$ ,  $SD = 3.21$ ) ( $p < .001$ ). Bisexual oriented men ( $M = 9.32$ ,  $SD = 2.87$ ) had better body image than bisexual oriented women ( $M = 7.38$ ,  $SD = 3.47$ ) ( $p < .001$ ). Homosexual oriented females and males did, however, not differ in body image scores ( $p = .943$ ).



*Figure 1.* The Means for Body Image Scores according to Gender and Sexual Orientation.

When looking at the simple effects between each sexual orientation group for females, bisexual oriented women ( $M = 7.38$ ,  $SD = 3.47$ ) had a worse body image than homosexual oriented women ( $M = 8.92$ ,  $SD = 2.95$ ) ( $p < .001$ ). Bisexual oriented women also had a worse body image than heterosexual oriented women ( $M = 8.49$ ,  $SD = 3.21$ ) ( $p < .001$ ). There was, however, no significant difference in body image scores between heterosexual and homosexual oriented women ( $p = .308$ ).

When looking at the simple effects between each sexual orientation group for males, bisexual oriented men ( $M = 9.32$ ,  $SD = 2.87$ ) had a worse body image than heterosexual oriented men ( $M = 10.45$ ,  $SD = 2.84$ ) ( $p = .004$ ). Homosexual oriented men ( $M = 8.97$ ,  $SD = 3.78$ ) also had a worse body image than heterosexual oriented men ( $p = .004$ ). There was, however, no significant difference in body image scores between bisexual and homosexual oriented men ( $p = .586$ ).

### Depressed mood

Means, standard deviations and the number of participants from FANOVA's results of depressed mood is reported in Table 4. There was a significant main effect of gender on depressed mood,  $F(1, 2786) = 27.59$ ,  $p < .001$ , partial  $\eta^2 = .010$ . Females ( $M = 10.31$ ,  $SD = 7.61$ ) had higher depressive symptoms than males ( $M = 6.65$ ,  $SD = 6.47$ ).

Table 4

*Means, Standard Deviations and Number of Participants for Depressive Symptoms for Gender and Sexual Orientation*

SO	Gender						All		
	Male			Female			M	SD	N
	M	SD	N	M	SD	N	M	SD	N
Heterosexual	6.42	6.23	1207	9.68	7.31	1257	8.09	6.99	2464
Homosexual	9.19	8.61	36	10.06	7.94	54	9.71	8.18	90
Bisexual	9.48	8.30	67	14.95	8.08	171	13.41	8.49	238
All	6.65	6.47	1310	10.31	7.61	1482	8.59	7.33	2792

*Note.* SO = Sexual Orientation.

There was significant main effect of sexual orientation on depressed mood,  $F(2, 2786) = 33.21, p < .001$ , partial  $\eta^2 = .023$ . Bonferroni *post hoc* test revealed that bisexual oriented people ( $M = 13.41, SD = 8.49$ ) had significantly more depressed mood than heterosexual oriented people ( $M = 8.09, SD = 6.99$ ) ( $p < .001$ ). Bisexual oriented people ( $M = 13.41, SD = 8.49$ ) also had significantly more depressed mood than homosexual oriented people ( $M = 9.71, SD = 8.18$ ) ( $p < .001$ ). There was, however, no significant difference in depressed mood between heterosexual and homosexual oriented participants ( $p = .090$ ).

Figure 2 shows means for depressed mood for each sexual orientation according to gender. There was a significant interaction effect between sexual orientation and gender on depression scores,  $F(2, 2786) = 3.66, p = .026$ , partial  $\eta^2 = .003$ , indicating that males and females differed in depressive symptoms across different sexual orientations. When looking at the significance values for each simple effect between males and females according to sexual orientation, heterosexual oriented men ( $M = 6.42, SD = 6.23$ ) had less depressed mood than heterosexual women ( $M = 9.68, SD = 7.31$ ) ( $p < .001$ ), and bisexual oriented men ( $M = 9.48, SD = 8.30$ ) had less depressed mood than bisexual oriented women ( $M = 14.95, SD = 8.08$ ) ( $p < .001$ ). Homosexual oriented females and males did, however, not differ in depressive symptoms ( $p = .566$ ).

When looking at significance values of each simple effect between each sexual orientation group for females, bisexual oriented women ( $M = 14.95, SD = 8.08$ ) had more depressive symptoms than homosexual oriented women ( $M = 10.06, SD = 7.94$ ) ( $p < .001$ ). Bisexual oriented women also had higher depressive symptoms than heterosexual oriented women ( $M = 9.68, SD = 7.31$ ) ( $p < .001$ ). There was, however, no significant difference in depressed mood between heterosexual and homosexual oriented women ( $p = .702$ ).



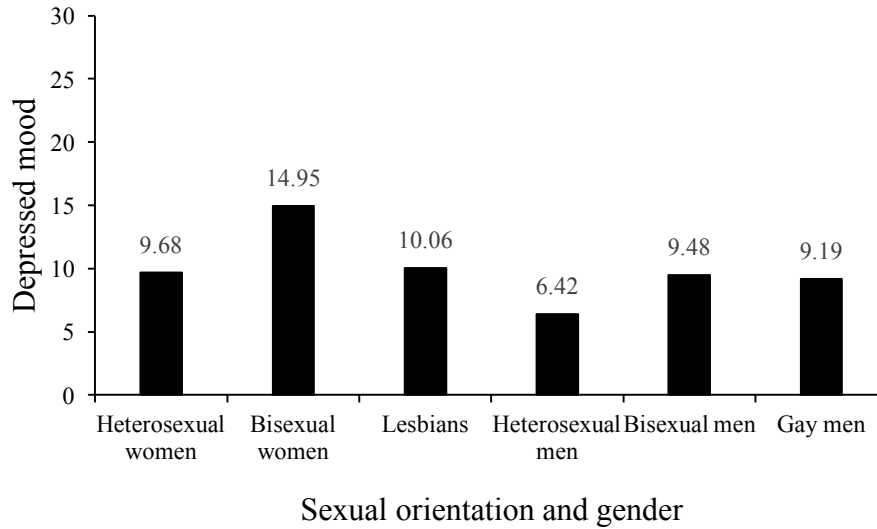


Figure 2. The Means for Depressed Mood according to Gender and Sexual Orientation.

When looking at significance values of each simple effect between each sexual orientation group for males, heterosexual oriented men ( $M = 6.42$ ,  $SD = 6.23$ ) had less depressed mood than homosexual oriented men ( $M = 9.19$ ,  $SD = 8.61$ ) ( $p < .001$ ) and bisexual oriented men ( $M = 9.48$ ,  $SD = 8.30$ ) had more depressed mood than heterosexual oriented men ( $p < .001$ ). Bisexual and homosexual oriented men, however, did not differ in depressed mood ( $p = .844$ ).

### Discussion

The aim of this study was to examine the differences between people of different sexual orientations and gender, on body image concerns, and depressed mood.

Women had significantly more body image concerns than men, which supports the hypothesis that was put forward, and was consistent with previous studies on gender differences in body image (Armatas et al., 2003; Çatikkas, 2011; Davids & Green, 2011; Paap & Gardner, 2011; Yean et al., 2013). Women also had, as hypothesized, more depressive symptoms than men, which was consistent with previous studies on depression and gender differences (Van de Velde et al., 2010).

The hypothesis that gay and bisexual men had a worse body image than heterosexual men was also supported, and was consistent with previous studies (Davids & Green, 2011; Laska et al., 2015; Yean et al., 2013). Gay and bisexual men, however, did not differ in body image scores, which in relation with the objectification theory might indicate that both groups might be affected by the “male gaze”(Fredrickson & Roberts, 1997).

The hypothesis that bisexual women had the worst body image of all sexual orientation groups, was supported by the results of this study. This was contrary to previous studies where no difference in body dissatisfaction were found between bisexual, heterosexual and lesbian women (Davids & Green, 2011; Laska et al., 2015; Polimeni et al., 2009). Bisexual women had a worse body image than lesbian and heterosexual women. Bisexual women also had significantly worse body image than bisexual men, and since bisexual people also had the worst body image of all the sexual orientation group, bisexual women had the worst body image of all groups, no matter the sexual orientation or gender.

Lesbian and heterosexual women, however, did not differ in body image concerns, which was consistent with previous studies (Davids & Green, 2011; Huxley et al., 2015; Polimeni et al., 2009). This might indicate in relation to the objectification theory that lesbians were not shielded from the “male gaze”, and the negative consequences associated with being objectified, which might indicate that the overall effect of being a woman in today’s society trumps any beneficial effects that being a lesbian might have on body image concerns (Fredrickson & Roberts, 1997). Lesbian participants were also not as many as heterosexual or bisexual participants, which could have affected the results.

The hypothesis that homosexual oriented people had more depressive symptoms than heterosexual oriented people was not supported. Which was contrary to previous research on the

subject (Wiszniewicz & Wojtyna, 2013). Nevertheless, it could be said that the hypothesis is half supported since gay men had significantly higher depressive symptoms than heterosexual men but lesbians did not differ from heterosexual women. Bisexual men also did not differ from gay men on depressive symptoms.

The hypothesis that bisexual women had more depressive symptoms than lesbian and heterosexual women was supported. Which is consistent with previous studies (Pyra et al., 2014; Wiszniewicz & Wojtyna, 2013). Bisexual women also had significantly more depressed mood than bisexual men, therefore, bisexual women had the most depressed mood of all groups, no matter what sexual orientation or gender. This difference might be explained, by the stigma and biphobia, bisexual people sometimes face in society (Ross et al., 2010).

This study did have several strengths. The number of participants, for example, and the fact that the sample used in this study came from a national, population based study, representing Icelandic adolescent population rather well (Pálsdóttir et al., 2014).

The limitations of this study were, however, several. Women outnumbered men in all sexual orientation groups, especially in the bisexual and homosexual orientation groups. The homosexual and bisexual orientation groups were also much smaller than the heterosexual orientation group. Future research should try to do a similar study where groups would be more even.

The data used in this study was cross-sectional, so causal relationships could not be tested. Future research is important to determine better the causal factors between sexual orientation, gender on depression and body image, especially amongst bisexual women.

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Appendix A

Passive consent



RANNSÓKNIR & GREINING

Háskólanum í Reykjavík

Reykjavík, 19. janúar 2015

## ***Ungt fólk 2015***

### **Rannsókn á högum og líðan nemenda í 5. – 10. bekk á Íslandi.**

Ágætu foreldrar / forráðamenn,

Dagana 3.- 5. febrúar næstkomandi er fyrirhugað að gera könnun meðal nemenda í 5. til 7. bekk á Íslandi í samræmi við áherslur menntamálaráðuneytisins og samkvæmt rannsóknaráætlun um hagi og líðan ungs fólks á Íslandi til ársins 2016. Samhliða verður lögð fyrir örstutt könnun meðal nemenda í 8. til 10. bekk um vímuefnaneyslu. Hvort tveggja er beint framhald rannsókna undanfarinna ára og sér Rannsóknir & greining við Háskólann í Reykjavík um framkvæmdina að vanda.

Markmiðið er annars vegar að rannsaka hagi og líðan nemenda í 5. – 7. bekk (tekur um 50 mínútur í svörun) og hinsvegar vímuefnaneyslu nemenda í 8. – 10. bekk (tekur um 10 mínútur í svörun).

***Ungt fólk*** rannsóknaröðin hefur verið unnin á Íslandi samfellt frá árinu 1992. Slík samfella í rannsóknum á högum og líðan ungs fólks er ungu fólki og þeim sem að málaflöknum starfa afar mikilvæg. Upplýsingar úr rannsóknunum hafa allt frá upphafi verið notaðar við stefnumótun og aðgerðir í málefnum ungs fólks og eru grunnur að vinnu þeirra sem vinna að því að bæta líf og hagi ungs fólks á Íslandi.

Megináherslur rannsókna ***Ungt fólk*** eru þær sömu í ár og áður hefur verið og lúta að því að kanna hagi og líðan ungmenna og félagslega þætti svo sem tengsl við foreldra og vini, íþróttir og tómstundir, félagslíf, líðan, einelti, streitu, mataræði, nám,

brottfallsáhættu, félagslega stöðu, svefnvenjur, lestur, tölvunotkun (skjánotkun), vímuefnaneyslu, framtíðaráform og annað mikilvægt.

Sem fyrr er **Ungt fólk** könnunin unnin samkvæmt lögum um persónuvernd, er nafnlaus og því ekki hægt að rekja neinar upplýsingar til einstaklinga. Nemendur eru sérstaklega beðnir að rita hvorki nafn sitt né kennitölu á spurningalistann. Þegar útfyllingu spurningalistanna er lokið leggja nemendur þá í lokað umslag og loka vandlega áður en listunum er safnað saman. Listarnir eru svo sendir greiningaraðilum sem tölvuskrá upplýsingarnar án þess að geta með nokkru móti vitað hverjum þær tilheyra. Að skráningu lokinni er spurningalistunum eytt.

Þessar upplýsingar eru sendar til að upplýsa þig um fyrirhugaða gagnaöflun. Ef þú óskar eftir að barn þitt barn þitt taki ekki þátt í **Ungt fólk** könnuninni í ár, hafðu þá samband við starfsfólk Rannsókna & greiningar með tölvupósti [rannsoknir@rannsoknir.is](mailto:rannsoknir@rannsoknir.is) eða í síma 599 6431.

Verði þátttaka góð koma upplýsingarnar til með að skila mikilsverðum niðurstöðum, bæði hagnýtum og fræðilegum líkt og fyrri kannanir af þessu tagi hafa gert.

Ef nánari upplýsinga er óskað þá vinsamlega hafið samband við Rannsókna & greiningu.

Með kærri kveðju  
Starfsfólk Rannsókna & greiningar

Appendix B

Gender

1. Ert þú strákur eða stelpa?  Strákur  Stelpa

Appendix C

Sexual orientation scale

**80. Sumir laðast kynferðislega að fólki af gagnstæðu kyni og sumir að fólki af sama kyni.**

(Merktu við EINN reit í HVORUM lið sem þér finnst eiga best við um þig).

- a) Hvar myndir þú staðsetja þig á mælikvarða sem mælir kynferðislega aðlöðun að gagnstæðu kyni?

Laðast ekkert að	Laðast nokkuð að	Laðast mikið að		
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- b) Hvar myndir þú staðsetja þig á mælikvarða sem mælir kynferðislega aðlöðun að sama kyni?

Laðast ekkert að	Laðast nokkuð að	Laðast mikið að		
1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix D

Self and body image scale

**31. Hversu vel eiga eftirfarandi fullyrðingar við um þig?** (Merktu í EINN reit í HVERJUM lið).

Lýsir mjög vel mér  Lýsir mér nokkuð vel

Lýsir mér ekki nógu vel  Lýsir mér alls ekki

a) Þegar ég hugsa um hvernig ég muni líta út í framtíðinni er ég ánægð(ur)

b) Mér finnst ég oftast vera ófrið(ur) og óaðlaðandi

c) Ég er ánægð(ur) með líkama minn

d) Ég er ánægð(ur) með þær líkamlegu breytingar sem átt hafa sér stað hjá mér undanfarin ár

e) Mér finnst ég vera sterk(ur) og hraust(ur)

f) Ég er ánægð(ur) með líf mitt

g) Ég er hamingjusöm/hamingjusamur

Appendix E

SCL-90, depressed mood

**33. Hversu oft varðst þú var/vör við eftirfarandi vanlíðan eða óþægindi síðastliðna 30 daga?** (Merktu í EINN reit í HVERJUM lið).

Nær aldrei  Sjaldan  Stundum  Oft

d) Þú varst leið(ur) eða hafðir lítinn áhuga á að gera hluti

e) Þú hafðir litla matarlyst

f) Þér fannst þú einmana

g) Þú grést auðveldlega eða langaði til að gráta

h) Þú áttir erfitt með að sofna eða halda þér sofandi

i) Þú varst niðurdregin(n) eða dapur/döpur

j) Þú varst ekki spennt(ur) fyrir að gera nokkurn hlut

k) Þér fannst þú vera hægfara eða hafa lítinn mátt

l) Þér fannst framtíðin vonlaus

m) Þú hugsaðir um að stytta þér aldur