

Blood and Disgust, A Survey about Menstruation

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When a woman has a discharge, and the discharge in her body is blood, she shall be in her menstrual impurity for seven days, and whoever touches her shall be unclean until the evening. And everything on which she lies during her menstrual impurity shall be unclean. Everything also on which she sits shall be unclean. And whoever touches her bed shall wash his clothes and bathe himself in water and be unclean until the evening. And whoever touches anything on which she sits shall wash his clothes and bathe himself in water and be unclean until the evening

Leviticus 15:19-22 English Standard Version (ESV)

Introduction

Feminine hygiene products - the euphemism stands for products which are supposed to collect and hide menstruation discharge. Just as the Bible states that menstrual flow is unclean, so does the packages and ads of the menstrual products. The menstrual products are sold with promises about freshness and security, implying that menstruation is not fresh and should be kept hidden (Kissling 2006). Menstruation has also been used historically as a subterfuge when logically explaining why women should not be allowed to have paid work or go to school (Walker 1997). Conclusively, menstruation, this thing that is a physical reality in the lives of approximately half the populations, is surrounded by myths that obstruct the lives of the ones having it. It is my firm belief that these myths are something that needs to be looked in to and changed. This study will therefore collect views on menstruation to see if some menstruators have a more positive view of menstruation. Finding these persons can open up for finding tools for helping menstruators to change their feelings.

Theory

In order to explain my view on science and what feminist researchers should engage in, I will draw on feminist standpoint theory and after that I will explain the theoretical background of the study. Psychologist Chris Griffin (cited in Walker 1997) characterize feminist standpoint research as three things. The first thing is having an emphasis on the importance of the experience of an oppressed group, usually women, as a starting point. The second thing is having an idea of the researcher as being accountable to their research subjects and to other feminists. And third, having a reflexive view on research, that is to say, being conscious about the dominant view of what counts as science and what does not, and that oppressed groups will be disadvantaged in this. My study will hopefully embody these three things. Walker (1997) writes that feminist standpoint research usually is conducted through qualitative methods. This is connected to a widespread belief in feminist research that categorization (and by extension quantitative methods) are violent to the research subjects. I agree that it *can* be violent (in a broad meaning) but I do not think that it *has* to be violent (see e.g. Hughes and Cohen 2012) and will try my best at a quantitative standpoint theory inspired research.

According to self-objectification theory, women learn that what is most important is how they are perceived by others. This leads to them adopting an outside view of themselves where it is very important to manage the outside which involves looks and smell (Roberts & Waters 2004). Another widespread feminist theory about the oppression of women state that women are perceived as the “other” to the norm, which is the man (e.g. Chrisler 2011). Since being a man is not being a woman, and a man is preferable, the physical signs of being a woman becomes a disgusting thing that need to be controlled. One of the things that need to be controlled since it is perceived as linked to womanhood is menstruation. Thus, inspired by the three points of standpoint theory, I will start my study in the experience of Swedish menstruators and do what I think is needed for them to have a less problematic feeling towards menstruation.

I will not classify the menstruators as women since not all women menstruate and not all menstruators are women. I will not focus on the connection between menstruation and womanhood, but rather the experience and feelings of the menstruators, and I will therefore not talk about women in the rest of this paper. I leave the topic of the connection between womanhood and menstruation to others.

Previous Research

Since menstruation has been seen as a proof of inferiority, a lot of older research is about whether menstruation affects thoughts, feelings and actions (Walker 1997). There is also research about how the menstruators themselves perceive menstruation, and I will present some of these studies since my study places itself in the field of perceptions about menstruation and menstruation products.

Psychology professor Tomi-Ann Roberts (2004) have studied women’s feelings about being menstruating people. Roberts writes that earlier studies have measured women’s feelings towards menstruation in general, but not towards their own menstruation. She fills up this gap by constructing a new scale partly built on old measurements and partly with new questions. Testing the scale on a convenience sample of 200 persons, Roberts finds that self-objectification and negative feelings towards menstruation are correlated.

Social psychologists Rose Grace Groce and Shelly Grabe (2014) studies perceptions of the menstrual cup¹ in an experimental study on 151 women. Groce and Grabe (2014) tested their subject’s attitudes towards a menstrual cup when making the subjects believing they were taking part in a product evaluation not solely about menstruation. The results showed that overall there was a negative attitude towards the menstrual cup, and the ones being positive had heard about the product before. People with more positive attitude towards menstruation were more inclined to be positive about the purchase of a menstrual cup.

Psychologist Aimee Aubeeluck and Moira Maguire (2002) studies menstrual attitude survey effects and find that persons answering a survey about menstruation will report more positive feelings towards menstruation if they are primed with positively stated questions about menstruation.

Aim

The idea for this study comes from experiences of menstrual cup users in my surrounding who say that they changed their view on menstruation after going from tampons and menstrual pads to menstrual cup usage. This idea is supported by Groce and Grabe (2014) who state that “[t]he menstrual cup requires more comfort and direct contact with the body and menstrual blood than most mainstream

¹ A menstrual cup is a reusable menstrual product which is a cup worn inside the vagina and there collects menstrual blood.

disposable products (e.g., tampons with an applicator), which encourages distancing from the subjective experience of menstruation”. Menstrual cup usage could therefore change the perception of menstruation and this is what I will look into.

Research Question 1: Does use of menstrual products affect feelings towards menstruation?

Hypothesis: Menstrual cup users will have a more positive feeling towards menstruation than menstrual pad and tampon users.

Fig 1: Relationship for research question 1



Research Question 2: Does prolonged use of a menstrual cup affect feelings towards menstruation?

Hypothesis: Prolonged use of menstrual cup will lead to a more positive feeling towards menstruation.

Fig 2: Relationship for research question 2



As for the direction of the relations, there is no way of knowing the causality, people who choose a menstrual cup can for example be more positive towards menstruation from the beginning. This is supported by the findings of Groce and Grabe (2014). Also, to measure the effect of menstrual cup usage on views on menstruation, a longitudinal study could have been made, this is however not possible under the time frame of this study and therefore left for future research.

There is also a possibility that the relationships looked into are due to other factors and therefore the variables age and education will be included. Earlier research (e.g. Abraham et al 1985) shows that menstruators start by using a menstrual pad and then change into other products, this mean that menstrual pad users are probably younger than other users. Previous research also shows that attitudes about menstruation become more positive as the subject ages (e.g. Roberts 2004, Groce & Grabe 2014). Education is included since it can be seen as a proxy for knowledge and in extension something that changes a person’s view of things and also their product usage.

Material

A survey about menstruation and menstrual products (“Enkät om inställningar till mens och mensskydd”) was constructed and sent out through my personal Facebook and Twitter page with a text stating that I wanted people to share it and that people who menstruate should fill it in. The link was shared by at least 70 people on Facebook and around 15 on Twitter. Among the persons sharing it was a big Facebook page about menstrual cups with almost 9,000 followers.

The survey was online for a week in December of 2014 and got 3,195 responses. 182 were excluded since the computer had counted them twice, they didn’t answer which menstrual product they used, they answered that they used a very unusual product (for example a cotton menstrual pad) or they answered that they did not menstruate.

The survey consists of 26 questions about the respondent’s feelings towards menstruation, use of menstrual products and some questions about age, education and sex. A battery of 12 statements about menstruation was included where the respondent was asked to answer how much each statement was true for them (1-7). For example “Jag tycker att mens luktar otrevligt [I think menstruation blood smells unpleasant]”. The whole survey is included in Appendix C.

How should one measure feelings about menstruation? As stated above, in the construction of the survey 12 questions were made in order to measure feelings towards menstruation. The 12 questions in my survey are about physical problems, shame, positive feelings and practice around menstruation and together they cover a wide range of feelings towards menstruation. Some of them are taken from the Menstruation Self-Evaluation Scale (Roberts 2004) which is mentioned in Previous Research. The reason for not using the whole scale is mainly that I deem it involving normative questions about gender and menstruation that is not relevant for my study and also possibly harming. E.g. “Menstruation is a reoccurring affirmation of womanhood”, and “Men have a real advantage in not having the monthly interruption of a menstrual period” (Roberts 2004, p. 26).

This way to collect responses is not representative. The sample is a convenience/self-selected sample where the respondents are probably more alike than the rest of the population. The studied population is menstruators in my extended network who are active on Facebook and Twitter. The respondents will have a higher rate than the rest of the Swedish population of feminist beliefs, probably be in a certain age span, be highly educated and from Stockholm. Some of the questions in the survey are specially made to see whether this group has a special view on menstruation (E.g. F11 “How interested are you in menstruation as a subject”, see Appendix C). The study is however about in-group-differences which makes it more generalizable than if I were only collecting views on menstruation. If there are group differences inside this highly homogenous group, it is an indication of a possible group difference in the whole population. The study is a pilot study which then can give indications on studies to make on the whole population.

Method and Operationalization

The two research questions will be attempted to be answered through linear regression models. They both have the same dependent variable which is *Feelings towards menstruation* and this will be measured with the help of an index created from the battery of 12 statements in the survey. The reason for creating an index is that I deem that this feeling cannot be measured through only one question. Instead a battery of questions is used together to get a more complex picture. First step in creating the index is that one of the variables in the survey (F6K) was normalized through a log transform due to skewness (1.146, st.e of skewness = 0.045) and then

the variables were standardized. After that a PCA were conducted where seven strongly connected variables were found. An index based on these seven questions has a high internal consistency (Cronbach $\alpha = .785$). The index (*Feelings towards menstruation*) was then constructed with seven of the 12 questions in the battery and using the loadings from a PCA with only the seven included (see Table 1). PCA is usually conducted on interval variables, but the kind of scale I use is usually assumed to be approximately interval (Field 2009). The respondents got index values from approximately -2 to 3. The variable is standardized and therefore has a mean of 0 and standard error of 1. 2,855 persons had answered all seven questions and thus gained a score on the index.

Table 1 Principal component analysis of dependent variable (varimax rotation)

Feelings towards menstruation (Cronbach $\alpha = .785$)	Loading
Jag undviker att ha sex med andra när jag har mens [I avoid having sex with others when I'm on my period]	.570
När jag har mens känner jag mig mindre fräsch [I feel less fresh when I'm on my period]	.774
Jag tycker att det känns obehagligt att få mens på mina händer vid byte av mensskydd [I feel uncomfortable getting menstruation blood on my hands when changing a product]	.683
Jag tycker att mens luktar otrevligt [I think menstruation blood smells unpleasant]	.709
Jag tycker att det är mer jobbigt att sova borta när jag har mens [I think it is more of a problem to sleep over when I have my period]	.660
Jag tycker inte om att ha mens [I don't like having my period]	.620
Jag skulle skämmas ifall jag läckte mensblod på mina kläder [I would feel ashamed if I got menstrual blood on my clothes]	.607

As seen in Table 1, all the questions used are negatively formulated towards menstruation. There were positively formulated questions about menstruation in the survey but they were not correlated enough to make an index out of. All questions in the value battery had a randomized order for each respondent for them not to have a systematic effect on the answers (see Aubeeluck & Maguire 2002 for discussions about this).

Use of menstrual product is operationalized through a question asking which product the person deems as their main product. Earlier research shows that many people use both tampons and menstrual pads (e.g. Cronjé and Kritzinger 1991, Omar, Aggarwal and Perkins 1998). Not allowing the choice of double product usage can be used as a critique against this question. However, as is seen later in the study, there are very small differences between the tampon and menstrual pad group, which leads to using them as one group and therefore also eliminating the problem of having to choose between the products in the survey. There is still possible that a multiple use answer could have made a difference in the results however.

25 percent answered that they use menstrual pads, 35 percent that they use menstrual cup and 40 percent that they use tampons ($n = 3\ 013$). This can be compared to earlier studies where sanitary pads and tampons are the main products used, and none answered that they use the menstrual cup (e.g. Cronjé and Kritzinger 1991, Omar, Aggarwal and Perkins 1998). The very high percent of menstrual cup users can be explained by the specific group answering the survey (feminists etc.) and the fact that a big menstrual cup page spread the survey.

The age of the respondents vary from 13 to 57 with a mean age of 25.69. In the *real* population, menstruators are between the ages of 10 and 57 with approximately

the same amount of people in all age categories. Looking at the histogram in Appendix A reveals a big difference from this in my data; I have an overrepresentation of people around 20 years old. There are respondents with all levels of education with the most usual level of education to currently study at the university, it is however not a representative spread. 70 percent of my respondents have an education above upper secondary level (gymnasium) whereas of menstruators (here defined as women) in the whole population only about 40 percent have an education above upper secondary level (SCB).

Years of menstrual cup usage is measured through a question asking how many years a person has used a menstrual cup. The ones who answered that they have used it less than a year are coded as zero years. Years of menstrual cup usage has a mean of 2.47 (st.e = 2.601).

As for validity “the extent to which measurement can be reproduced” (Aneshensel 2013, p. 6). The survey is included in Appendix C. One problem is with the population which is not very neatly defined and based on convenience and therefore it is not possible to redo the survey on the same population. Some of the extra questions in the survey can, as stated earlier, spread some light on this special group. And, as also stated earlier, the studied group is a homogenous group found via self-selection, the study is therefore not generalizable.

As for reliability or “how well a measure corresponds to the theoretical definition of a construct” (Aneshensel 2013, p. 6), there is some criticism to state towards the reliability and the way the survey was created. First of all, using statements that someone can agree or not agree to, is a criticised method since it can lead to bias due to the fact that research show that people with lower education will agree with statements rather than disagree to a higher extent (eg. Esaiasson et al 2012). Another thing to note is that in menstruation research there is ongoing discussions about whether it is reasonable to do post-surveys on menstruation since a person for example answer different in different parts of the menstruation cycle (Walker 1997). These two problems are hopefully evenly distributed in the groups, and therefore not affecting the result.

Results

In this section the result of the regression analyses will be presented. First all models for research question 1 will be presented and then all models for research question 2.

A linear regression analysis (see Table 2) was conducted for Research question 1 (“Does use of menstrual products affect feelings towards menstruation?”). Model 1 (adjusted $R^2 = .125$) includes the index (*Feelings towards own menstruation*) which is the dependent variable and dummy variables for tampon and menstrual cup users as independent variables, leaving menstrual pad users as the reference category. The intercept, which gives the value for the menstrual pad users which is -0.282 ($p < 0.001$, st. e = 0.036). From this we see that the menstrual pad users have a feeling that is more negative than the mean, which is 0. The effect of tampon usage on Feelings towards menstruation is not significant and therefore excluded further on since tampon users do not differ enough from menstrual pad users in their feelings. The effect of menstrual cup usage on Feelings towards menstruation is 0.755 ($p < 0.001$, st.e = 0.046) which is almost a whole standard deviation for the index.

Model 2 excludes the dummy variable tampon user, since it did not differ significantly from the reference category - menstrual pad user. This is equivalent with using tampon users *and* menstrual pad users as the same group and therefore the new reference category is menstrual pad and tampon users. The coefficient for menstrual cup user differs slightly, it is now 0.739 ($p < 0.001$ st. e = 0.037). Adjusted R^2 is the same as in Model 2.

Model 3 (adjusted $R^2 = .134$) introduces the control variable age. The coefficient for menstrual cup user is now 0.728 ($p < 0.001$ st.e = 0.037). The coefficient for menstrual cup users are just slightly different from Model 2 which means that only a small part of the effect of the menstrual cup can be explained by age. The effect of age is 0.015 ($p < 0.001$ st.e = 0.003). This means that the difference between the two ends of the age scale is 0.660 ($57 * 0.015 - 13 * 0.015$), which is consistent with previous research saying that age has a positive effect on *Feelings towards menstruation* (e.g. Roberts 2004, Groce & Grabe 2014).

Model 4 (adjusted $R^2 = .139$) includes dummy variables for education with low education as reference category. High education without graduation has an effect of 0.232 ($p < 0.001$, st.e = 0.043) and high education with graduation has an effect of 0.287 ($p < 0.001$, st. e = 0.046) on *Feelings towards menstruation*. Notable is that the two categories has almost the same coefficient which implies that the groups do not differ much. The menstrual cup effect on *Feelings towards menstruation* compared to tampon and menstrual pad users is down to 0.716 ($p < 0.001$ st. e = 0.037) which shows that some, but just a small some, of the effect of menstrual cup usage was due to education level.

Model 5 includes both variables on age and on education. We end up with an adjusted R^2 of 0.141 which is not very high, but since my aim is not to explain all things that affect *Feelings towards menstruation* this is acceptable. The effect of menstrual cup usage ends up at 0.713 ($p < 0.001$ st. e = 0.037). This is slightly less than in Model 2, but still an effect that has nothing to do with age or education level. The effect of the education dummies are 0.232 and 0.287 respectively, and age is now slightly lower than before, 0.010 ($p < 0.01$, st. e = 0.003), which is reasonable since age and education are correlated.

Table 2 Effects of menstrual product usage on Feelings towards menstruation
(unstandardized b coefficients, standard errors in parentheses)

	Feelings towards menstruation (SD = 1, M = 0)				
	Model 1	Model 2	Model 3	Model 4	Model 5
Menstrual product (ref menstrual pad)					
Tampon user	0.027 (0.045)				
Menstrual cup user	0.755*** (0.046)	0.739*** (0.037)	0.728*** (0.037)	0.716*** (0.037)	0.714*** (0.036)
Age (13-57)			0.015*** (0.003)		0.010** (0.003)
Education level (ref low education)					
High (not graduated)				0.232*** (0.043)	0.203*** (0.044)
High (graduated)				0.287*** (0.046)	0.206*** (0.052)
Intercept	-0.282*** (0.036)	-0.265*** (0.022)	-0.637*** (0.071)	-0.442*** (0.068)	-0.651*** (0.080)
Adjusted R²	.125	.125	.134	.138	.141
N	2827	2827	2827	2827	2827

*** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

Source: "Enkät om inställningar till mens och mensskydd"

Comment: Dependent variable *Feelings towards menstruation* is an index created out of seven questions about menstruation, it is standardized. People who do not use tampons, menstrual cups and menstrual pads are excluded from analysis. Education dummy created from a 1-8 scale variable, "high" includes education above high school graduation (gymnasium). See BLUE diagnostics in Appendix B

Research question 2 ("Does prolonged use of a menstrual cup affect feelings towards menstruation?") is analyzed with a linear regression analysis (see Table 3). Model 1 only includes the focal relationship which is the effect of years of menstrual cup usage on *Feelings towards menstruation*. The intercept, which is the value for a user who has had a menstrual cup for less than a year is 0.339 ($p < 0.001$, st. e = 0.040) which is more positive than the mean for all respondents in the survey. The effect of years of menstrual cup usage is 0.054 ($p < 0.001$, st. e = 0.011). This means that 10 years of using the menstrual cup leads to a difference on the index *Feelings towards menstruation* of 0.540 which is about a half standard deviation. The adjusted R^2 is low, only 0.022 so it is not probable that the menstrual cup usage is an important explanation of the variation in feelings.

Model 2 includes the variable age and Model 3 includes the dummy variables for education, but since these variables are not significant and the R^2 actually goes down for these models, I will not go into these any further and deduct that the first model is the most relevant one.

Table 3 **Effects of menstrual cup usage on Feelings towards menstruation**
(unstandardized b coefficients, standard errors in parentheses)

Feelings towards menstruation (SD = 1, M = 0)			
	Model 1	Model 2	Model 3
Years of menstrual cup usage	0.054*** (0.011)	0.053*** (0.012)	0.054*** (0.011)
Age (13-57)		0.002 (0.005)	
Education level (ref low education)			
High (not graduated)			0.037 (0.076)
High (graduated)			0.027 (0.080)
Intercept	0.339*** (0.040)	0.295* (0.134)	0.314*** (0.065)
Adjusted R²	.022	.021	.020
N	1004	1004	1004

*** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

Comment and source: See comments for Table 2. Years of menstrual cup usage has the value 0 for persons who have used it less than a year. See BLUE diagnostics in Appendix B

Conclusion

The aim of this study is to look for differences in attitudes towards menstruation depending on menstrual product used with the hope of doing findings that can help menstruators get a more positive feeling towards menstruation. From the analysis we see that a difference exists which is that the menstrual cup users has a more positive feeling towards their menstruation which means that the result was as was

hypothesized. Also, the tampon and menstrual pad-users does not differ significantly from each other, but they differ from the menstrual cup users.

A prolonged use of a menstrual cup seems to have a positive effect on the feelings someone has towards menstruation, and it seems as it is not the ageing that makes this difference. But the difference is slight and does not explain much of the variance of the variable which means that not too much importance should be put into this result. Also, this connection should rather have been analysed through a longitudinal study.

The two final models indicate that in the specific group studied, menstrual cups have a positive correlation with feelings towards menstruation. There is no way of knowing at this point whether this has to do with differences from before the product choice. Maybe the menstrual cup users are specific kinds of people who have a more positive feeling towards menstruation or maybe menstrual cup usage actually change the persons feeling towards menstruation. I do believe that both statements are true; that is to say; the menstrual cup users have a more positive feeling towards menstruation before choosing the product, but they do also change their perception when using it.

What about the menstrual cup makes this difference in perception? The major differences between a menstrual cup and tampons/menstrual pads are in my point that menstrual cups are reusable, they require that the user touches its body and menstrual blood and last; they are advertised for in a different way. Which of these differences that makes the impact is not answerable through my study. I do believe that required physical contact with the body is the major thing that differs, but that is just a hunch.

Previous research on perceptions towards menstruation finds connections between levels of self-objectification and views on menstruation. I have not measured self-objectification in this study and it is possible that the menstrual cup users would have a lower degree of self-objectification which then could explain some of the results. But that does not tell us more about whether the self-objectification changes with the product or if it is different before choice of product. Notable is that the previous research is not conducted on menstrual cup users, since this product until recently had very few users.

Feminist research and especially feminist standpoint research promotes extra care for the subjects researched on, for example that their needs are taken into account in to a high extent. This study is made with the aim of making lives better for the research subjects. It is arguable that I put myself higher than my subjects in this study; I decide what is good for them etc. For example: the people who answered the survey only knew that they were answering a study about menstruation and menstrual products. They did not know that I would look for differences between them and from that decide what is good for them. Maybe they would not have wanted to participate had they known the purpose. I think that this point, that the subjects have no control over what their answers are used to, is one of the main reason to why feminist researchers have such a negative view on quantitative research. Hopefully my respondents do not feel used, and I honestly believe that I am doing this in their/our best interest. And I will be open for criticism that of course will have an impact on how I conduct research in the future.

This study shows something new and interesting which could be used to change the life of menstruators around the world. That is, menstrual cup usage and positive feelings towards menstruation is positively correlated. Notable is that Grace and Grabe (2014) shows that persons who has heard of menstrual cups before are more positive towards testing it than someone who hears about it for the first time. This means that if menstrual cups are one answer to how to change people's feelings about menstruation to the more positive, information needs to be spread so to let

people get used to the fact that this kind of product exists and that it can have positive effects.

This null funded survey about menstruation got 3,195 answers in less than a week. I also got emails and comments from people wanting to learn about the results. Apparently there is a desire for research and information about menstruation, at least among the group the survey got out to. The results from the study together with the fact that a huge interest was spotted among the participants leads to the classical conclusion; more research needed. Next time with a sample that is representative for the whole population, or maybe with an experimental design with letting people try the menstrual cup.

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APPENDIX A - ANALYSIS

Fig 3: Frequency histogram for age variable

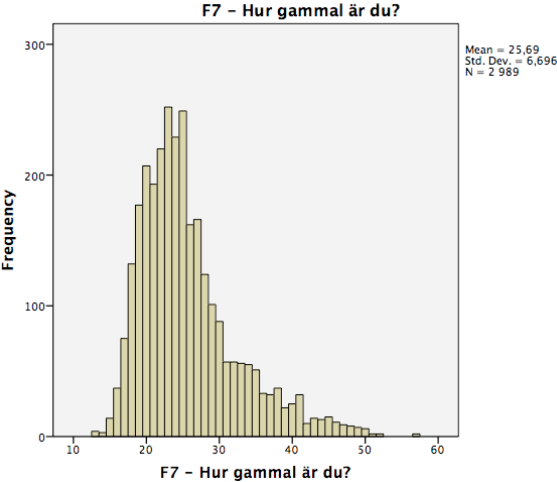


Fig 4: Frequency histogram for Education variable

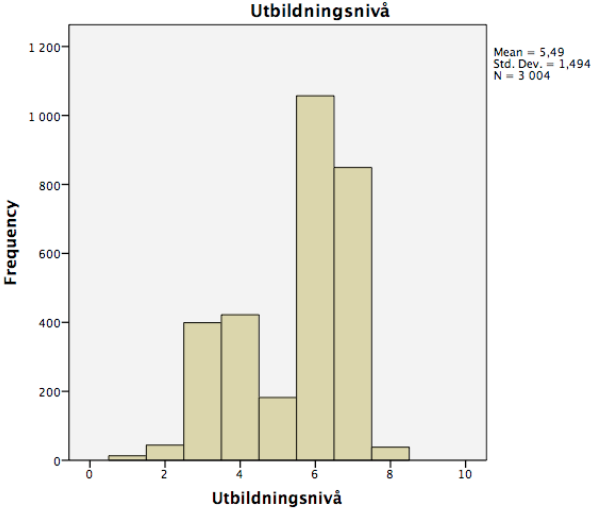


Fig 5: Frequency histogram for years of using menstrual cup variable

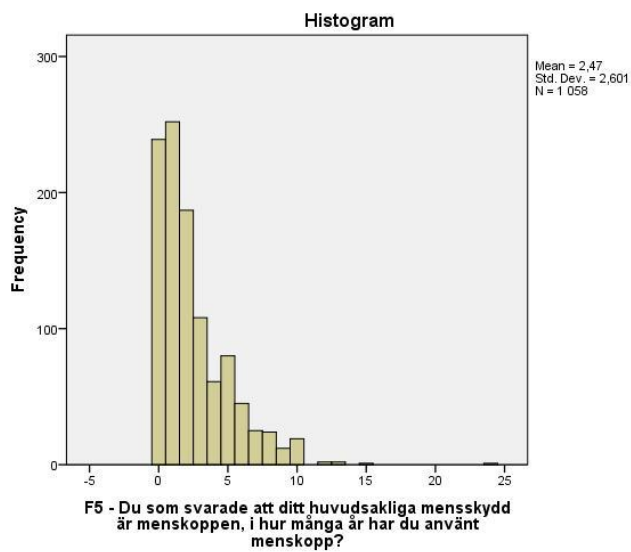


Fig 6: Frequency histogram for Index variable (Feelings towards menstruation). Normal curve included.

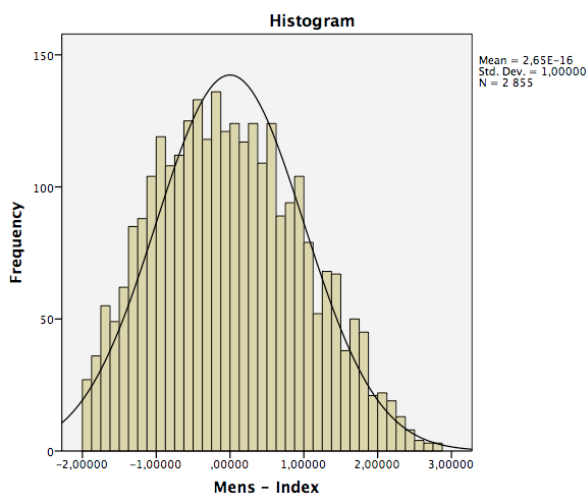


Table 4 Principal component analysis made before making the index variable (absolute value of loadings above .3 marked)

Rotated Component Matrix ^a				
	Component			
	1	2	3	4
Zscore: F6A - Utsträckning stämmer påstående? - Jag undviker att ha sex med andra personer när jag har mens	,577	,008	,030	-,165
Zscore: F6B - Utsträckning stämmer påstående? - Jag har inga problem med att bada när jag har mens	-,071	-,146	-,056	,843
Zscore: F6C - Utsträckning stämmer påstående? - När jag har mens känner jag mig mindre fräsch	,676	,254	,243	-,113
Zscore: F6D - Utsträckning stämmer påstående? - Jag tycker att det känns obehagligt att få mens på mina händer vid byte av mensskydd	,737	,047	,040	,042

Zscore: F6E - Utsträckning stämmer påstående? - Jag tycker att mens luktar otrevligt	,716	,034	,215	,111
Zscore: F6F - Utsträckning stämmer påstående? - Jag tycker att det är mer jobbigt att sova borta när jag har mens	,590	,312	-,022	-,297
Zscore: F6G - Utsträckning stämmer påstående? - Jag tycker inte om att ha mens	,387	,216	,737	,054
Zscore: F6H - Utsträckning stämmer påstående? - Jag har mycket mensvärk	,076	,790	,145	,075
Zscore: F6I - Utsträckning stämmer påstående? - Jag blöder mycket vid mens	,112	,804	-,007	-,086
Zscore: F6J - Utsträckning stämmer påstående? - På vissa sätt kan jag uppskatta att ha mens	,005	,032	-,890	,206
Zscore: F6L - Utsträckning stämmer påstående? - Jag pratar gärna med andra om min mens	-,250	,367	-,181	,571
Zscore: Ln_F6K - Utsträckning stämmer påstående? - Jag skulle skämmas ifall jag läckte mensblod på mina kläder	,630	-,064	,035	-,194

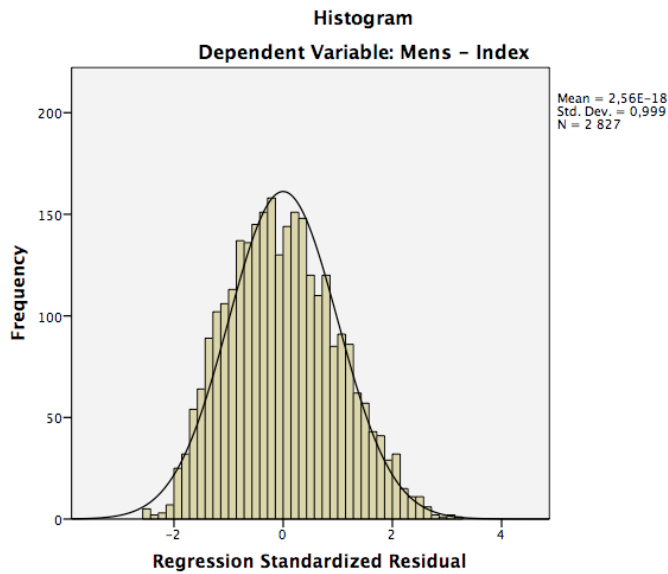
Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.^a
a. Rotation converged in 5 iterations.

APPENDIX B - BLUE

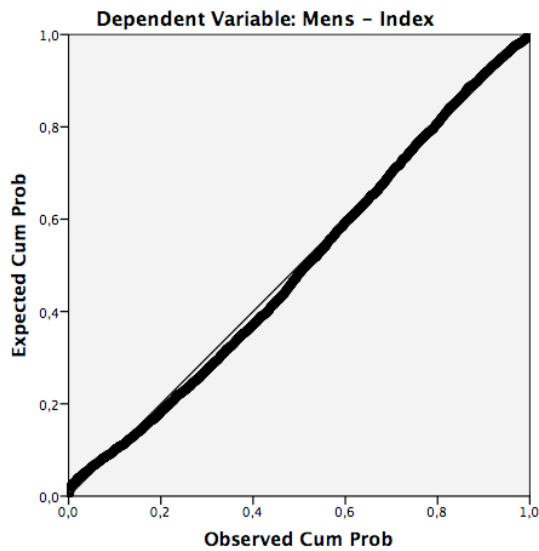
Here I present the BLUE (Best Linear Unbiased Estimate)-diagnostics of the two regression models. As for the theoretical parts of a BLUE e.g. choice of variables etc., I deem them covered in the report. One extra thing to note is that there are variables in the survey that was not used for the report and they could possibly have been interesting. I have not found any multiplicative relations and will not go into that here. Linear relations were found to have the best fit in all cases.

Model 1

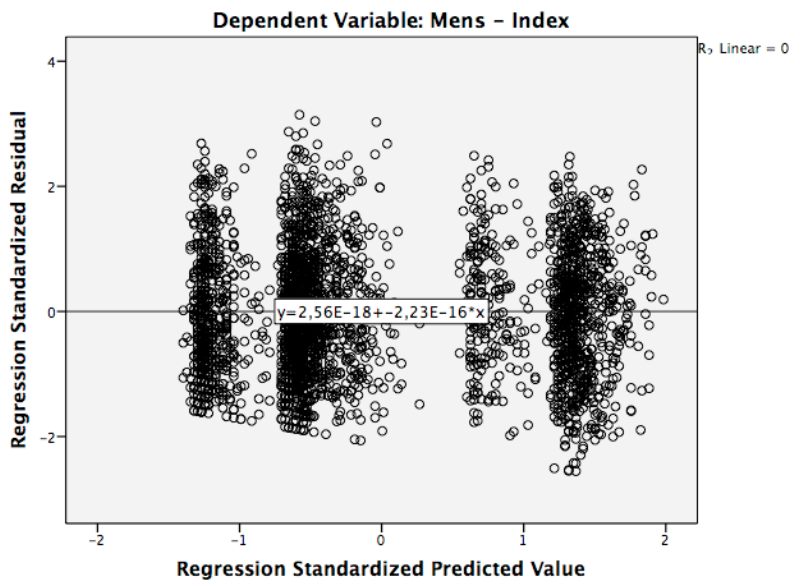
There are no problems with multicollinearity; tolerance values for all variables are well above 0.2. The error term is well behaved, that is to say; has a mean of 0 and is approximately normally distributed (see Histogram below). All standardized beta values are between the crucial values -2 and 2. Centered leverage value is 0.001 which is below the crucial value of 0.5. No problems with heteroscedasticity (see scatterplot below).



Normal P-P Plot of Regression Standardized Residual

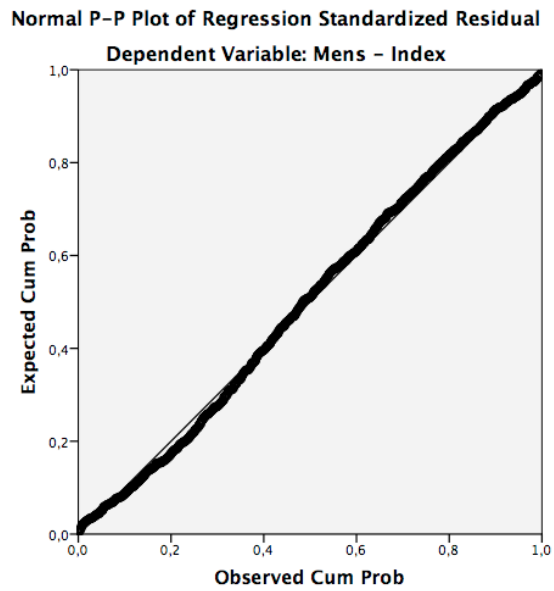
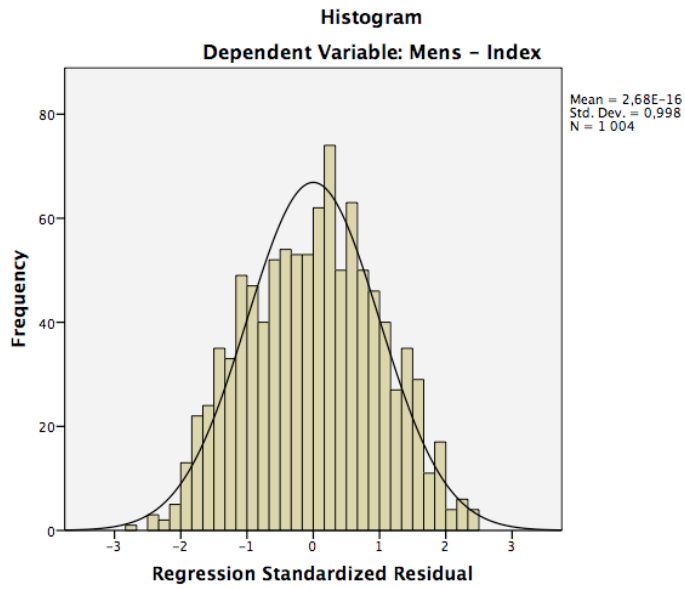


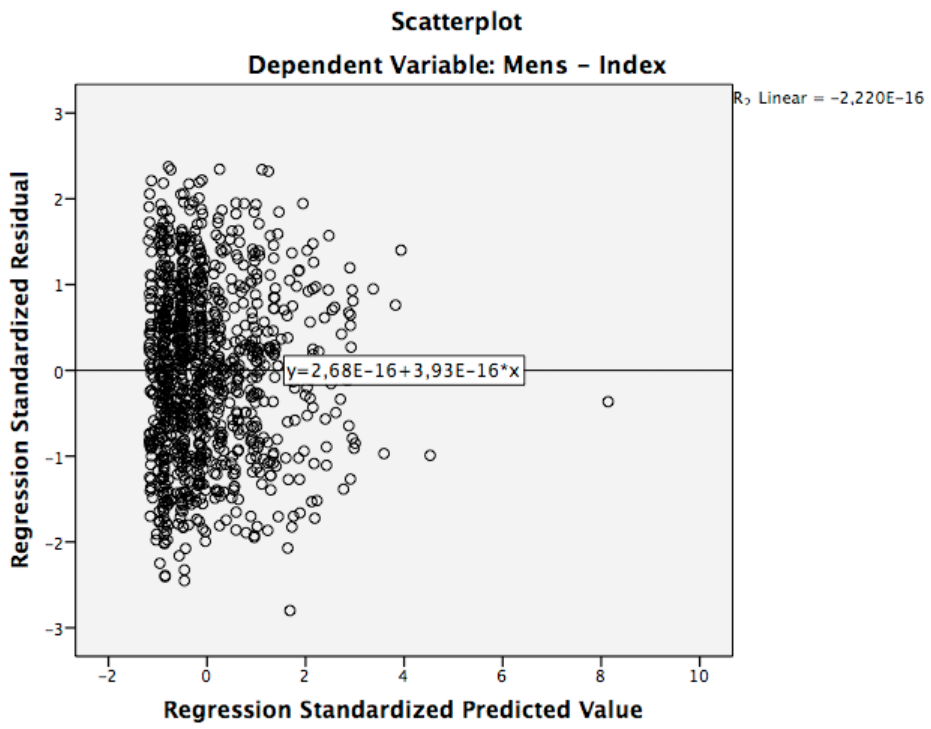
Scatterplot



Model 2

No problem with multicollinearity, all tolerance values above 0.2. The error term is well behaved, has a mean of 0 and is approximately normally distributed (see histogram below). The standardized beta values are well between -2 and 2 which mean that there are no problems with influential cases. Centered leverage value is 0.004 which is below the critical value of 0.5. There is less variance when the variable age goes up, but that is probably mainly due to the fact that there are fewer cases in the higher ages (see scatterplot below) and therefore I deem that there is no heteroscedasticity.





APPENDIX C - SURVEY

Den här enkäten handlar om inställningar till menstruation och menskydd, den tar ca 5 minuter att svara på. Jag som står bakom enkäten heter Johanna Helldén och går masterprogrammet i Genusvetenskap vid Lunds universitet. Undersökningen är anonym och kommer endast att användas i forskningssyfte. Om du har frågor eller kommentarer så är du välkommen att maila hellden dot johanna at gmail dot com

- F0 Har du menstruerat under 2014?
- JA
 - NEJ (svarande som sagt detta är ej med i resten)
- F1 Vilket är ditt huvudsakliga mensskydd?
Om du använder olika mensskydd under din menstruation ska du svara det som du använder mest
- Bindor, engångsprodukt
 - Tygbindor
 - Tamponger
 - Menskopp
 - Annat _____
- F2 Har du ett annat mensskydd på natten än på dagen, i så fall vilket?
- Ja, Bindor, engångsprodukt
 - Ja, Tygbindor
 - Ja, Tamponger
 - Ja, Menskopp
 - Nej, har samma på dagen och på natten
 - Annat _____
- F3 Vilket var det första mensskyddet du provade?
- Bindor, engångsprodukt
 - Tygbindor
 - Tamponger
 - Menskopp
 - Annat _____
- F4 Vilka av dessa mensskydd har du provat?
- Bindor, engångsprodukt
 - Tygbindor
 - Tamponger
 - Menskopp
 - Annat _____
- F5 Du som svarade att ditt huvudsakliga mensskydd är menskoppen, i hur många år har du använt menskopp?
Har du använt den mindre än ett år kan du beskriva med ord hur länge du använt den.
- _____
- F6 I vilken utsträckning stämmer följande påståenden in på dig?
Om något av påståendena inte gäller dig, t.ex om du inte har sex med andra personer eller aldrig badar, så kan du hoppa över den frågan.
(1: Stämmer helt - 7: Stämmer inte alls)
- A Jag undviker att ha sex med andra personer när jag har mens
- B Jag har inga problem med att bada när jag har mens
- C När jag har mens känner jag mig mindre fräsch

- D Jag tycker att det känns obehagligt att få mens på mina händer vid byte av mensskydd
- E Jag tycker att mens luktar otrevligt
- F Jag tycker att det är mer jobbigt att sova borta när jag har mens
- G Jag tycker inte om att ha mens
- H Jag har mycket mensvärk
- I Jag blöder mycket vid mens
- J På vissa sätt kan jag uppskatta att ha mens
- K Jag skulle skämmas ifall jag läckte mensblod på mina kläder
- L Jag pratar gärna med andra om min mens
- F7 Hur gammal är du?
- F8 För ungefär hur många år sedan hade du din första mens?
- F9 Har du en stadigvarande sexuell relation?
- Ja
 - Nej
- F10 Vad är din sexuella läggning?
Denna fråga ställs eftersom det finns tidigare studier som visar att sexuell läggning kan ha påverkan på attityder till mens.
- Homosexuell
 - Bisexuell
 - Heterosexuell
 - Pansexuell
 - Vill ej svara
 - Annat _____
- F11 Hur intresserad av menstruation som ämne skulle du säga att du är?
(1: Väldigt intresserad - 7: Inte alls intresserad)
- F12 I hur stor utsträckning håller du med om följande påstående: "Jag tycker [att] samhällets syn på mens bör förbättras"
(1: Håller helt med - 7: Håller inte med alls)
- F13 Vilken skolutbildning har du?
Om du ännu inte avslutat din utbildning, markera den du genomgår för närvarande.
- Ej fullgjort grundskola (*eller motsvarande obligatorisk skola*)
 - Grundskola (*eller motsvarande obligatorisk skola*)
 - Studier vid gymnasium, folkhögskola (*eller motsvarande*)
 - Examen från gymnasium, folkhögskola (*eller motsvarande*)
 - Eftergymnasial utbildning, ej högskola/universitet
 - Studier vid högskola/universitet
 - Examen från högskola/universitet
 - Examen från/studier vid forskarutbildning
- F00 Övriga kommentarer

Tack för din medverkan! Om du har frågor eller åsikter om enkäten så får du gärna maila hellden dot johanna at gmail dot com