

Using the Dual Control Model to explore female sexual function and dysfunction in a Swedish sample: A cross-sectional study¹

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Abstract

Sexual functioning is for most people a highly important part of life and is associated with a great deal of variation. Bancroft & Janssen's (2000) Dual Control Model attempts to explain the complexity of the sexual response cycle, by positing that it is dependent on two systems in the brain, regulating sexual excitation and inhibition. This model has not yet been tested in a Swedish sample. The aim of the present study was therefore to test the model using a survey-based, cross-sectional design. The results confirmed that levels of excitation and inhibition significantly predicted female sexual function. These findings further support the Dual Control Model of sexual functioning and suggest that it can be applied to the Swedish population.

Keywords: Dual Control Model, female sexual function, sexual excitation, sexual inhibition.

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Att använda Dual Control Model för att undersöka kvinnlig sexuell funktion och dysfunktion i en svensk population: En tvärsnittsstudie

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Sammanfattning

Sexuell funktion är för de flesta människor en viktig del av livet och funktionsnivån varierar i hög utsträckning. Bancroft & Janssens (2000) Dual Control Model försöker att förklara komplexiteten i den sexuella responscykeln och föreslår att denna cykel är beroende av två system i hjärnan som reglerar sexuell upphetsning samt inhibition. Modellen har ännu inte prövats i en svensk population. Syftet med denna studie var därför att testa modellen i en enkätbaserad tvärsnittsstudie. Resultaten bekräftade att nivåer av upphetsning och inhibition signifikant kunde predicera kvinnlig sexuell funktion. Detta resultat stödjer Dual Control Models förklaring av sexuell funktion och indikerar att den kan användas på en svensk population.

Nyckelord: Dual Control Model, kvinnlig sexuell funktion, sexuell upphetsning, sexual inhibition.

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Tack!

Ett stort tack till John Barnes, Kari Trost, samt nära och kära för engagemang, stöd och uppmuntran. Vi vill även tacka alla deltagare som gjort denna studie möjlig.

Sexual functioning is for most people a highly important part of life and one's well-being. Sexual difficulties are common worldwide, with some even stating "sexual dysfunctions are possibly the most prevalent of any of the disorders in the DSM" (Meana, 2012, p. v). Prevalence studies indicate that this may be especially true for women (Fugl-Meyer & Fugl-Meyer, 2002; Heiman, 2002; Laumann, 2005). Sexual dysfunction is associated with high levels of comorbidity, for example with conditions such as cardiovascular diseases, diabetes, anxiety, and depression (Heiman, 2002). To determine which components might affect an individual's sex life is therefore of great importance in promoting good health. Research of the etiology and the understanding of female sexual dysfunction show a complex picture, pointing towards the interaction of several biopsychosocial factors interacting (for example, Basson, 2005; Levine, 2002; Tiefer, Hall & Tavis, 2002).

The sexology research field has been lacking theories explaining sexual dysfunction for several decades. However, theoretical models targeting this subject have been developed to a greater extent the past decade. The empirical testing of these models is still in its infancy (Meana, 2012). One of these, the Dual Control Model (Bancroft & Janssen, 2000), proposes that sexual response in an individual is dependent on the balance of two systems in the brain, consisting of excitatory and inhibitory mechanisms. The model argues that sexual dysfunction can be explained as the result of low levels of excitation and high levels of inhibition in the given individual. In the opposite case, a person with very low levels of sexual inhibition and high levels of sexual excitation could be more likely to engage in high risk or "out-of-control" sexual behaviors.

The Dual Control Model also posits that these systems are under influence of the individual's genetic and psychosocial characteristics. Previous research has found several

biopsychosocial factors associated with female sexual functioning. In order to test the Dual Control Model in relation to female sexual function these factors also need to be measured and tested against the model. To the authors' knowledge, the Dual Control Model has not previously been examined in a Swedish sample and several of the additional factors chosen for the current study have not been included when testing the Dual Control model earlier.

The overall aim of the present study is to test the Dual Control Model as a theoretical explanation of female sexual functioning in a Swedish sample. Furthermore, the association between sexual functioning, and sexual excitation and inhibition will be explored in relation to emotion based, social based, and psychosomatic based characteristics of the sample.

Female sexual function and dysfunction

Sexual function and dysfunction are very broad terms and can include numerous different components. This may contribute to the contradictory results in the research area, thus, it is important to define the concepts in order to explore them.

Definition of female sexual function. Female sexual function can include feelings of desire, getting aroused and achieving orgasm. Desire and arousal are phenomena difficult to conceptualize and differentiate. Sexual desire is a term used to describe a person's perception of the need of sexual satisfaction (Rosen, et al. 2000). Other concepts that frequently are used in the literature in order to describe the same phenomenon are libido, sexual interest or sexual motivation (Pastor, Holla & Chmel, 2013). Sexual arousal refers to the more physical parts of sexual excitement even though it cannot of course fully be separated from the mental aspects. Sexual arousal may include feelings of warmth or tingling in the genitals, lubrication, or muscle contractions (Rosen, et al. 2000). Some researchers have proposed that the two constructs sexual desire and sexual arousal are in fact two "windows" into one function (Bancroft, Graham,

Janssen & Sanders, 2009). It has also been established that people have great difficulties distinguishing between desire and arousal (Graham, Sanders, Milhausen & McBride, 2004; Janssen, McBride, Yarber, Hill & Butler, 2008). The subject is however still controversial, with some stating a theoretical distinction of the two components, even though the possibility of establishing the distinction in research might be small (Meana, 2012).

Female sexual function is conceptualized in relation to the sexual response cycle and different models of the sexual response cycle have been developed throughout the years. For example, Masters and Johnson's (1966) linear model of human sexual response, consisting of phases of excitement, plateau, orgasm and resolution has provided earlier definitions of sexual function with a large focus on anatomy and physiology (Masters and Johnson, 1966; ref. in Basson, 2005). More recently, Basson (2005) provided an extended circular model, including biological, psychological and social aspects of sexual response. Basson argued that the sexual response is nonlinear, the phases are overlapping and mind and body responses are intertwined (Basson, 2005).

Research has shown that there may not exist one universal model of sexual response that is applicable to all women. In a study by Sand and Fisher (2007) equal proportions of the participants identified the Masters & Johnson's model and Basson's model as the best representation of their own sexual experience. Notably, the women who chose Basson's model also reported lower sexual functioning.

Definition of female sexual dysfunction. Dysfunction may arise when the individual experiences difficulties in one or several of the processes related to sexual functioning (Meana, 2012). The definition of female sexual dysfunction has however been the topic of great debate in the sexology research area for many years (Rosen et al., 2000). The literature can therefore be

confusing when it comes to the concepts being used.

Definitions of female sexual dysfunction have traditionally included problems with desire, arousal, pain/discomfort and orgasm (Rosen et al., 2000). The problems of desire and arousal can be characterized as a lack or loss of ditto. Pain and discomfort in the genital area can be recurrent and persistent, hindering the individual to engage in sexual activities or enduring them with great difficulty. Orgasm dysfunctions can include a persistent delay or difficulties attaining orgasm when engaging in sexual activities (Meana, 2012).

The specific dysfunction is diagnosed as a disorder if it occurs in combination with distress, a criteria that has been controversial. Some argue that a disorder is a disorder even though the individual might not care about it. Others argue that if individuals are satisfied with their level of sexual function, whatever that may be, there is no need to pathologize them (Meana, 2012).

Studies use different terms, including “sexual disabilities”, “sexual concerns”, “sexual problems”, “sexual dysfunctions” and “sexual disorders”. In the present study “sexual problems” and “sexual dysfunctions” interchangeably will be used to describe sexual dysfunctions without diagnostic assessment. “Sexual disorders” will be used to describe sexual dysfunctions fulfilling the criteria for a diagnosis, according to the Diagnostic and Statistical Manual of Mental Disorders (American Psychological Association, 2000).

Prevalence of female sexual dysfunction. Due to the variations of the concepts being used and the questions concerning the diagnostic framework it is difficult to establish the prevalence of female sexual dysfunctions (Basson, et al. 2000). Researchers have however agreed on the fact that these problems are common worldwide (Heiman, 2002; Meana, 2012; Witting, 2008). Estimates range from 25 to 63 % (Heiman, 2002) with low sexual desire and

orgasmic problems being the most common types of sexual dysfunctions. A prevalence study of the Swedish population reported 47 % of the female sample having at least one sexual dysfunction (Fugl-Meyer & Fugl-Meyer, 2002). Comorbidity is also common and often established in prevalence studies (Witting, 2008). The occurrence of diagnostic disorders according to the DSM framework is typically lower and less well-established (Heiman, 2002), with numbers ranging from 6 to 15 % depending on the type of disorder (Witting, 2008).

As stated above, female sexual function and dysfunction are very broad phenomena, which makes it hard to capture the core components of this area. Using a theoretical base an understanding of these complex phenomena can be further increased.

The Dual Control Model

The Dual Control Model (Bancroft & Janssen, 2000), posits that human sexual response is based on the balance of an excitatory and an inhibitory system in the central nervous system. The systems regulate the process of sexual arousal. The excitation mechanisms make the individual more prone to engage in sexual activities and the inhibition mechanisms reduce that same likelihood. Humans vary in these excitation and inhibition mechanisms, and for the majority these variations are adaptive and non-problematic. However, a large proportion of the imbalance in these systems could result in sexual problems for the individual. The model posits that very high or very low levels of sexual excitation and/or sexual inhibition would make individuals more vulnerable to sexual dysfunctions or problematic sexual behaviors. For example, a person with high levels of sexual inhibition and low levels of sexual excitation could have difficulties becoming sexually aroused. In the opposite case, a person with very low levels of sexual inhibition and high levels of sexual excitation could be more likely to engage in “out of control” or high risk sexual behaviors, for example develop sexual addiction or to place one at risk for

sexually transmitted diseases. This study aims to focus specifically upon the model in relation to sexual dysfunction rather than the model in relation to risky sexual behavior. Sexual dysfunction and high risk sexual behaviors are distinct and separate areas of functioning and warrant examination in their own right. Furthermore, what a desirable sexual behavior might constitute of is highly individual and it is hard to operationalize the cutoff between a risky and adaptive sexual behavior without being moralistic.

The Dual Control Model also posits that sexual responses occur in a specific context, with cultural meanings and scripts attached to it, often in interactions with other individuals. The effects of the excitatory and inhibitory stimuli found in these situations are mediated by the psychological and neurophysiological characteristics of the individuals involved. Those characteristics are considered a result of both genetics and early learning (Bancroft & Janssen, 2000).

Factors associated with female sexual function

As previously stated, the inhibitory and excitatory mechanisms are further influenced by characteristics of the individual. Research on factors associated with female sexual functioning shows a complex picture, with interpersonal, psychological, physiological, medical, social and cultural factors intertwined (for example, Basson, 2005; Levine, 2002; Tiefer et al., 2002). A selection of factors with empirical support, often included in studies of female sexual function, will be incorporated in the present study. This will be done in order to control for which factors that actually have an effect on sexual functioning. To the authors' knowledge, with the exception of the factors age and education (Sanders et al., 2008), the factors described below have not been investigated alongside the Dual Control Model. This is crucial to do in order to investigate the core of sexual inhibition and sexual excitation's affect on sexual functioning.

Demographic factors. There are several demographic factors that influence reported dysfunction, for example age and education. Results regarding the impact of age on female sexual function vary to a large extent (Witting et al. 2008). Some studies find an increase of sexual dysfunction with growing age, while there also are results indicating the opposite (Sanders et al., 2008). Lower education levels have been associated with higher levels of dysfunction (Heiman, 2002), but recent research is showing the contradictory, suggesting that women who have completed college have higher ratings of current sexual problems than those who have not (Sanders et al., 2008). Based on the contradictory results regarding both age and education, these factors' association to sexual functioning might become more evident when including sexual inhibition and excitation.

Mood and affect. Psychological disorders or a history of psychological problems are associated with low sexual function. Specifically, research has shown that current depression is a risk factor for low sexual function. (Aslan, Beji, Gungor, Kadioglu & Dikencik, 2008; Meana, 2012; Witting, 2006). Sexual difficulties have been found in 50 % of women with untreated major depression (Kennedy, Dickens, Eisfeld & Bagby, 1999). The association between depression and sexual function is however complex, with contradictory results also present. Lykins, Janssen & Graham (2006) showed that 50 % of their sample reported no change, and 10 % of the sample had increased sexual interest and sexual response when feeling depressed. Further complicating the picture, the use of antidepressants has been related to strongly affect sexual function in a negative way (Clayton, 2002). Because of the previous results of mood and affect upon sexual function, and also because of the assumption of the Dual Control Model stating that other psychological factors influence the systems of excitation and inhibition, it is important to assess mood and affect in relation to these systems.

Body Mass Index and Body Image Satisfaction. Body image can be described as an individual's internal representation of his or her own outer appearance (Erbil, 2013). Research has shown associations between body image satisfaction (BIS) and various aspects of sexuality. The results indicate that individuals with high BIS have an overall higher sexual function than individuals with low BIS. (Erbil, 2013; Pujols, Meston & Seal, 2009; Weaver & Byers, 2006). Research has shown contradictory results relating to how body size in itself affects women's sexual functioning. Weaver & Byers (2006) found that women with higher Body Mass Index (BMI) report poorer sexual functioning. In contrast Erbil (2013) found no relation between BMI and sexual functioning. However, BMI was associated with BIS, which in turn showed a relation to sexual functioning. Since the impact of BMI and BIS on sexual functioning is contradictory, they are both included in the present study to assess the possible effects of one's body together with sexual excitation and sexual inhibition.

Exercise. Exercise has been associated with sexual functioning in previous research (Meana, 2012). Acute exercise has shown a positive effect on female sexual arousal in a series of experimental studies (Hamilton, Fogle & Meston, 2007; Meston & Gorzalka, 1995, 1996). Furthermore, when sexual function has been negatively affected by the use of antidepressant medication, exercise has shown to be an effective tool to decrease these sexual side effects (Hoffman, et al., 2009; Lorenz & Meston, 2013). It is important to assess the impact of sexual inhibition and excitation alongside exercise.

Health status. General health, including medical and physical conditions, is associated with level of sexual functioning. Women who report their health as lacking are more likely to have a sexual dysfunction than women who rate their health to be excellent (Meana, 2012). Sexual dysfunction is commonly reported by people with chronic pain and chronic diseases

(Kwan, Roberts & Swalm, 2005; Mollaoglu, Tuncay & Fertelli, 2012). It is therefore important to assess health status when testing the Dual Control Model in relation to sexual function.

Hormonal contraception. Several studies have investigated the suggested association between the use of hormonal contraceptives (HC) and sexual side effects. The overall results are conflicting, with some studies indicating a positive correlation and other studies showing a negative correlation between HC and sexual function (Burrows, Basha & Goldstein, 2012; Davis & Castano, 2004; Pastor et al., 2013). Notably, women who discontinue HC report sexual side effects as one of the major reasons for stopping (Rosenberg, Waugh & Meehan, 1995; Sanders et al., 2001; Westhoff et al., 2007). Since the results are contradictory, HC will be assessed to be able to exclude a potential hormonal effect on sexual function.

Based on the above-mentioned research findings these factors could contribute and further explain the individual variations of sexual functioning. Therefore, when testing the Dual Control Model these factors should be incorporated in the study so as to be able to account for their potential impact upon sexual functioning. This should provide a clearer picture of the relationships between sexual excitation, inhibition, and sexual function.

Measurements of the Dual Control Model

Several questionnaires have been developed to measure sexual excitation (SE) and sexual inhibition (SI), including the Sexual Inhibition/Sexual Excitation Scales (SIS/SES) and the Sexual Excitation/Sexual Inhibition Inventory for Women (SESII-W). The SIS/SES scales were originally developed for men and were later also adapted to women. Gender differences in scores have been found, even though within-gender variability is much greater than the average differences between women and men (Carpenter, Janssen, Graham, Vorst & Wicherts, 2008). However, SESII-W was developed due to concerns that the original SIS/SES scale did not

include factors specifically related to women's sexual response. In general, women score higher on SI, suggesting that the inhibitory mechanisms are more developed. This difference could be explained from sociocultural factors and themes such as reputation, body image, and power dynamics with partners. With the development of SESII-W such factors were taken into consideration to a greater extent (Bancroft et al., 2009).

Eight subscales are included in the SESII-W, reflecting eight lower-order factors, five of which are related to SE. Firstly, the Partner Characteristics factor includes stimuli related to a partner's personality or behavior that may be sexually arousing. Secondly, the Sexual Power Dynamics factor refers to sexual situations in which domination or force are potentially arousing. Thirdly, the Arousability factor relates to stimuli that can increase sexual arousal, for example fantasies, thoughts or bodily sensations. Fourth, the Smell factor entails items concerning olfactory cues that can increase sexual arousal. Fifth, the Setting factor consists of items concerning the tendency of increased sexual arousability when engaging in sexual activities in settings that are unusual or where it is possible to be seen or heard (Graham, Sanders & Milhausen, 2013).

Three lower-ordered factors are related to SI. The Arousal Contingency factor relates to the potential for arousal to be easily decreased by situational factors, for example having difficulties being sexually aroused unless things are not "just right". The Concerns about Sexual Function factor relates to the tendency for worries about sexual functioning to negatively affect arousal. The Relationship Importance factor reflects the need for sex to occur within a specific relationship context (Graham et al., 2013).

There is limited previous research concerning the Dual Control Model, but a number of studies have shown that it can be used as a theoretical framework to understand the development

and persistence of sexual concerns, such as sexual dysfunctions (Bancroft et al., 2009). The testing of the Dual Control Model using SESII-W to explain variations of sexual functioning is further limited, with only a few studies published so far.

Sanders, Graham & Milhausen (2008) examined the relationship between SI and SE and ratings of current sexual problems and lifetime sexual difficulties in a sample of 540 women. Several demographic variables, such as age, employment, health ratings, children, were also included as predictors. The results showed that the strongest predictors of both current and lifetime sexual problems were the sexual inhibition factors Arousal Contingency and Concerns about Sexual Function. In line with part of the Dual Control Model, the study supports the assumption that individuals with high levels of SI have an increased vulnerability to experience sexual problems (Sanders et al., 2008).

In a validation study of the Dutch version of the SESII-W, Bloemendaal and Laan (2013) examined SI and SE in relation to female sexual functioning. The results indicate that symptomatic women differed from non-symptomatic women. Specifically, participants with sexual problems scored higher on SI and lower on SE in comparison with participants without. In line with Sanders and colleagues (2008) the lower-order factor Arousal Contingency was the strongest predictor of the presence of sexual dysfunction, followed by Concerns about Sexual Function.

Limitations of previous research. The empirical testing of the Dual Control Model using the SESII-W is limited, so far with only a few studies evaluating its relevance to the female population. To the authors' knowledge, the Dual Control Model has not been tested in a Swedish sample. Furthermore, testing its specific relevance to the understanding of variations of female sexual function is yet to be established. The few studies that have examined this have not

incorporated several factors that previous research has found to be associated with female sexual functioning. In order to test the Dual Control Model in relation to female sexual function these factors also needs to be measured and tested against the model.

Aim of the present study

There is a great deal of variation in sexual functioning (Fugl-Meyer & Fugl-Meyer, 2002; Heiman, 2002; Meana, 2012; Witting, 2008). The cause of these variations is not yet well established. Research has shown a complex picture with biological, psychological and social factors interacting. Several theoretical models are trying to incorporate these factors in order to reflect the complexity. However, the empirical testing of these models is still in its infancy. One of these theoretical models is, as mentioned, the Dual Control Model. It proposes that sexual function is depending on two systems in the brain, regulating sexual excitation and inhibition. Previous studies have indicated that low levels of excitation and high levels of inhibition are associated with low sexual functioning. The overall aim of the present study is to test the Dual Control Model as a theoretical explanation of female sexual functioning in a Swedish sample. To the authors' knowledge, this has not been conducted in any previous studies. The model further proposes that the two systems are influenced by biopsychosocial components of the individual. Studies have shown that several other factors are associated with female sexual function. Because of the above stated reasons, in order to test the model properly, these factors need to be taken into account. Therefore, the association between sexual functioning, and sexual excitation and inhibition will be further explored in relation to emotion based, social based, and psychosomatic based characteristics of the sample.

Research questions and hypothesis

Is there an association between sexual excitation, sexual inhibition and sexual

functioning? The overall aim of the study is to evaluate the DC model within a Swedish sample. In accordance with the model it is expected that SE and SI will predict a significant amount of variation in sexual functioning. It is also expected that higher SI and lower SE will predict lower sexual functioning.

Are there other factors than sexual excitation and sexual inhibition that each significantly can explain variation in sexual functioning? Research has shown that several other factors are associated with sexual function. It is therefore expected that in addition to sexual excitation and sexual inhibition the other factors included in the present study will also explain significant variation of sexual functioning.

Method

Materials

The survey contained several scales, including a demographic questionnaire, an exercise habits scale, a psychosomatic symptoms scale, a body image satisfaction scale, the Sexual Excitation/Sexual Inhibition Inventory for Women, the Female Sexual Function Index, The Positive and Negative Affect Schedule, and the Center for Epidemiologic Studies Depression Scale. The complete survey is included as Appendix I.

Demographic questionnaire. The demographic questionnaire was constructed by the authors, exploring background variables and other factors that previously have shown to affect sexual functioning (Meana, 2012; Weaver & Byers, 2006; Witting, 2008). The demographic questionnaire provides information about variables such as occupation, highest level of education, civil status, weight, length, age of sexual debut, use of contraceptives, medication usage, importance of satisfying sex life, etcetera.

Exercise habits. This self-constructed scale consisted of four questions regarding the

participants' exercise habits, including satisfaction with current state of physical health, type of exercise performed, frequency and intensity of their exercise. The questions were along the line of "Rate how intense your physical activity is in general" with responding alternatives ranging from "Don't work out" to "Elite level". The internal consistency in this sample was found to be .77.

Psychosomatic symptoms. This scale assessed presence of psychosomatic symptoms, which can be used as an indicator of general health status. The participants were asked, considering the previous month, to rate how often, if at all, they experienced ten given psychosomatic symptoms, for example headache, nausea, and sleeping difficulties. The participants responded to a 4-point Likert-scale ranging from "Almost everyday" to "Never". The total score ranged from 10 to 40 points and high scores indicated high presence of psychosomatic symptoms. These questions were constructed with the Individual Development of Adaptation Project (Wångby, Magnusson & Stattin, 2002) and found to be of sound psychometric characteristics for studying psychosomatic symptoms. Subsequently these measures have been used in other projects (see Sundell, Klint & Colbjørnsen, 2007). The internal consistency in this sample was found to be .76.

Body Image Satisfaction. BIS was assessed by showing the participants a picture of nine different body types and thereafter asking the participants to rate their estimated current and ideal body type. The potential discrepancy between the items gave an estimate of the individual's BIS. The higher number the more dissatisfaction was assumed. The measure is originally based on the Body Shape Preference Test (Fallon & Rozin, 1985; ref. in Heatherton, 1993), however the item concerning which figure the participant thought the opposite sex finds most attractive was excluded, since it was not relevant to the aim of the present study. The internal consistency in

this sample was found to be .70.

Sexual Excitation/Sexual Inhibition Inventory for Women: SESII-W. The Sexual Excitation/Sexual Inhibition Inventory for Women (SESII-W) is a questionnaire designed to assess the tendency for sexual excitation (SE) and sexual inhibition (SI) in women. This inventory is based on the Dual Control Model that posits that SE and SI are two separated and relatively independent systems and that sexual arousal depends on the activation of these two.

SESII-W is divided into eight factors and consists of 36 items that refer to situations that could activate SE or SI, or statements concerning arousal and inhibition in general. The participants responded to a 4-point Likert-scale ranging from “Strongly Disagree” to “Strongly Agree”.

For the lower-order factor scales the Cronbach’s alpha coefficient has been estimated with an average of .72, ranging between .63 and .80 (Graham et al., 2006). In the current study the Cronbach’s alphas ranged between .55 and .83, with an average of .68. For the higher order scales, SI has previously shown $\alpha = .70$ and SE $\alpha = .70$ (Graham et al., 2006). In the current study the Cronbach’s alphas were .70 and .77. Satisfactory test-retest reliability has been established by Graham and colleagues (2006). The same study demonstrated good convergent and discriminant validity for other surveys, including the Behavioral Activation Scale and Behavioral Inhibition Scale. Only modest correlations were found, indicating that SESII-W measures distinctly sexual rather than general activation/inhibition processes (Graham et al., 2006).

Since this questionnaire was not available in Swedish it was translated according to World Health Organisation’s guidelines of translation and back-translation (Process of translation, 2013). Four people with Swedish as their primary language translated the English

version into Swedish. Two of them were psychology students with good knowledge of the terminology, the third was a professional teacher in English and the fourth was a doctor in urology. These four versions were merged into one. Thereafter a native English speaking psychology student translated it back into English. This English version was compared with the original one and since they corresponded to a great extent, it was decided that the merged Swedish version could be used in the pilot study.

Based on feedback from the pilot study a revision of the instructions was made, shortening the length of two sentences. Instead of “*Women describe their sexual arousal in many different ways. These can include...*” the instruction read “*Sexual arousal can include...*”. Also, examples were given and the example “*heightened sense of awareness*” was removed.

Female Sexual Function Index: FSFI. The FSFI is a brief questionnaire used to measure sexual function in women. It includes 19 items that assesses six domains including desire, lubrication, arousal, orgasm, pain and satisfaction. Each item is rated on a scale ranging from 0 to 5 or 1 to 5.

The total FSFI score is the sum of all scores in each domain, and then further calculated using an algorithm. Low scores imply low sexual function and vice versa. In a cross-validation study of FSFI clinical cutoff scores were developed. An FSFI total score of 26.55 was found to be the optimal cutoff for differentiating women with and without sexual dysfunction (Wiegel, Meston & Rosen, 2005). 70.7 % of the women with a sexual disorder as diagnosed according to DSM-IV and 88.1 % of the women without sexual disorders were correctly identified using that cutoff score (Wiegel et al., 2005). The FSFI has shown strong test-retest reliability ($r = 0.79-0.86$), good construct validity and a high degree of internal consistency ($\alpha = 0.82$) (Rosen et al., 2000). In the current study the Cronbach’s alpha coefficient was .96.

The FSFI has been translated into Swedish by Lars Börjesson, Spec. läk, Med Dr, Ina Berntsson, Sjuksköt./Sexolog, Med Dr, and Lars-Gösta Dahlöf, Doc. (Bengtsson, et al., 2011). The survey is translated with back-translation and established face validity. Permission to use the Swedish version of the survey has been collected from the authors. The version does not include a translated version of the instructions so the authors of the current study translated the English instructions into Swedish independently. The two versions were then merged into one version that was translated back to English by an English-speaking psychology student. The version was then compared to the original English version and the two versions corresponded. Two further alterations of the instructions were made. Information regarding the answers being confidential was removed since that already was stated in the beginning of the survey and the definition of intercourse was adjusted.

The Positive and Negative Affect Schedule: PANAS (Watson, Clark & Tellegen, 1988). PANAS measures both positive (PA) and negative affect (NA). It consists of 10 items with words describing feelings and emotions, such as irritation, fear and enthusiasm. The respondents indicated to what extent they felt the described emotion at the present moment on a Likert-scale ranging from 1 to 5.

The reliability of the PANAS has been estimated ($\alpha = 0.88$ for PA and $\alpha = 0.84$ for NA), as well as test-retest reliability ($r = 0.47$ for PA and $r = 0.39$ for NA) (Watson, Clark & Tellegen, 1988). In the current study the Cronbach's alpha coefficient was .76 for PA and .76 for NA.

Center for Epidemiologic Studies Depression Scale: CES-D. The CES-D scale consists of 20 items measuring depressive symptomatology in the general population. The items are statements relating to sadness, loss of appetite, sleep disturbance, ability to concentrate, guilt, fatigue and agitation. The respondents indicated to what extent they agreed to the statement on a

Likert-scale ranging from 1 to 5.

The internal consistency has been established with $\alpha = .86$ in the general population. Furthermore, the CES-D scale has shown good test-retest reliability (Sawyer, 1977). The Cronbach's alpha was .92 for the current study.

Participants

Participants were female individuals between the ages of 18-40. Because of ethical considerations the lower age limit was set according to the Swedish age of consent. The upper age limit was set at 40 to exclude individuals that may have entered menopause, since research has shown that the menopause can influence sexual functioning (Dennerstein, Alexander & Kotz, 2003). The other inclusion criterion was answering yes to the question "Were you born with female biological genitals?".

Procedure

Pilot study. A pilot study was performed before the actual study was initiated. A convenience sample of nine persons participated in the study and each of them gave feedback individually on separate items as well as on the survey as a whole. Changes were made if several participants had similar considerations. Feedback concerning time and related overtiring effects was frequently mentioned. This was adjusted by excluding a scale and shortening the survey from its original length.

Recruitment. Participants were recruited via social media channels, primarily twitter.com and facebook.com. When posting the web link in our own channels, we also encouraged people to spread it further which quickly made the survey viral.

Data collection. Data were collected via the website webbenkater.com where the survey was publically available from 04.04.14 until 09.04.14. Time to complete the survey was

estimated to an average of 19.4 minutes.

Ethical considerations. Ethical considerations were made according to *God forskningsed* (Vetenskapsrådet, 2011). Participation in the study was completely anonymous. All the surveys were coded and results are reported on group level so that no individual participant can be identified. Sexual function is to many a very sensitive topic and answering questions about for example one's ability to climax or one's sexual preferences can be considered private. In order to make sure that no one felt obligated to answer questions that they were not comfortable answering, the participants were explicitly informed before entering the survey that they could skip questions without terminating the survey and that they could exit the survey at any time.

Via feedback from the pilot study, it was acknowledged that the questions regarding BIS might be stressful to some. However, the two items were still included in the survey since BIS can have great impact on people's sexual function (Erbil, 2013; Pujols et al., 2009; Weaver & Byers, 2006). Participants were informed prior to completing the survey of the topic nature of the questionnaire and were also instructed that they were free to discontinue the survey at any time. It was therefore assumed that participants would exercise this option if needed.

Data analysis. Data analysis was performed using Statistical Package of Social Sciences, SPSS, version 22.0 and 21.0. Some items had the possibility of open-ended answers and were therefore recoded to enable use in the statistical analysis. Certain items were reversed according to instrument specifications. By performing Little's Missing Completely at Random (MCAR) test it was assessed that missing values were missing at random. The statistical analysis was performed excluding cases pairwise. Outliers and extreme values were examined using visual inspection of histograms, box plots and descriptive data. No cases were excluded.

Normality was assessed with Kolmogorov-Smirnov test, which showed significance.

However, tests of normality are limited concerning large samples (Field, 2013) so the distribution was also examined using visual inspection of histograms, box plots and descriptive data of levels of kurtosis and skewness.

The statistical analysis performed was Pearson's correlation coefficient, t-test, standard linear multiple regression analysis and one-way ANOVA. Pearson's correlation coefficient was used to examine if there was an association between sexual excitation, sexual inhibition and sexual functioning. Standard linear multiple regression analysis was performed to examine if SE and SI could predict level of sexual function. It was also used to explore which subscales of SIS and SES that predicted lower sexual functioning and if there was an association between the additional factors and sexual functioning. Preliminary analysis was conducted in order to check that no assumptions of normality, linearity, homoscedasticity and multicollinearity were broken. Independent t-tests were performed to compare HC users with non-HC users, and level of education. One-way ANOVA was performed to compare different groups of contraceptive use. The level of significance was set at $p < 0.05$.

Results

Sample characteristics

214 cases were excluded from the original sample of 675 participants. Participants were excluded from the study if they a) had not completed the survey (N=161), b) answered "no" to the question "Were you born with female biological genitals?" (N=32) and c) were younger than 18 or older than 40 (N=21).

The final sample included for analysis consisted of 461 participants. The average age of the sample was 26.4 (SD=5.3). Using 26.55 as cutoff (Wiegel et al., 2005) 45.3% of the sample (N= 209) had significant symptoms of sexual dysfunctions. This prevalence of symptoms is

consistent with estimates reported by previous prevalence studies (Fugl-Meyer & Fugl-Meyer, 2002; Laumann, 1999) and suggests that the current sample was a good representation of the wider population with regard to sexual dysfunction. Further descriptive characteristics of the sample are presented in Table 1. The sample represented a range of education levels, relationship status, sexual preference, employment status, and current choice of contraceptive, etcetera.

Table 1. *Demographic and background characteristics.*

Variables	Total % (n=461)
<i>Education (ongoing or finished)</i>	
Gymnasium	14
University	77
Vocational	7
<i>Occupation</i>	
Student	53
Employed (full-time and part-time)	37.3
Sick-leave	2
Other	1.3
<i>Civil status</i>	
Single	32
Cohabitant	31
Relationship(s)	24
Married	11
Other	2
<i>Duration of current civil status</i>	
Less than a year	20.8
1-2 years	25.6
3-4 years	22.8
Over 5 years	30.4
<i>Sexual orientation</i>	
Heterosexual	67.2
Homosexual	4.1
Bisexual	18.9
Other/Not defined	9.8
<i>Children</i>	
Yes	14
No	86
<i>Use of antidepressants</i>	
Yes	11
No	89
<i>Contraception</i>	
Nothing	19.3
Combined oral contraceptives	17.4
Condom	14.8
Copper IUD	10.8
Progestine-only oral contraceptives	7.8
Other	29.9

Distributions of sexual excitation and sexual inhibition in the current sample are presented in Figure 1. The scores were close to normally distributed in the current sample.

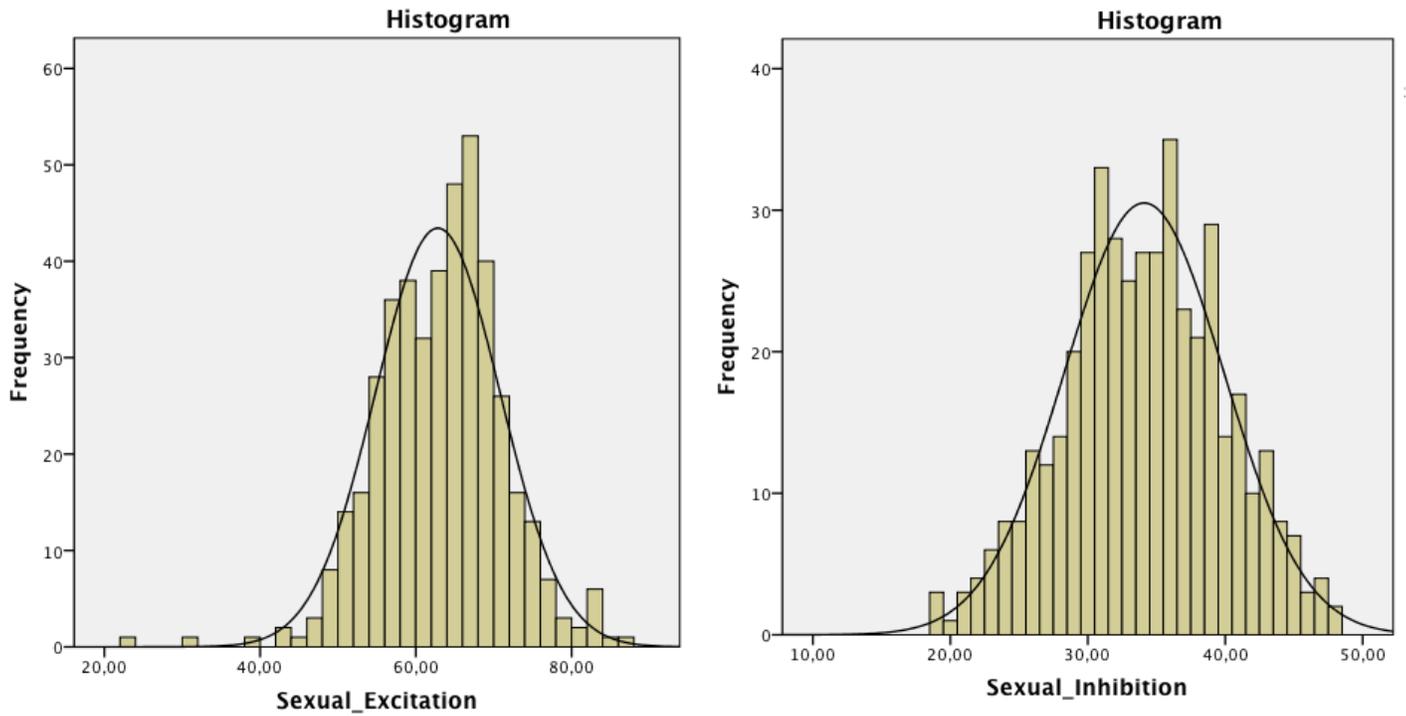


Figure 1.

To assess whether there was an association between sexual excitation, sexual inhibition, and sexual functioning, linear multiple regression analysis was performed. Table 2 below presents the means, standard deviations and Pearson’s correlations between sexual excitation, sexual inhibition, and the additional factors in relation to sexual function.

Table 2

Average scores on the SE/SI scales, including subscales, age, BMI, exercise habits, psychosomatic symptoms, depressive symptoms, positive and negative affect, BIS and Pearsons correlations to FSFI.

Total (N=461)			
	M	SD	r
<i>Sexual excitation</i>	62.81	8.01	.293**
Arousability	26.61	3.97	.266**
Partner Characteristics	12.10	2.00	-.023
Sexual Power Dynamics	9.58	2.51	.230**
Smell	5.51	1.74	.082
Setting	8.96	2.46	.204**
<i>Sexual inhibition</i>	34.10	5.82	-.353**
Concerns about Sexual Function	11.16	2.54	-.301***
Arousal Contingency	6.20	2.05	-.396***
Relationship Importance	16.74	3.40	-.145**
<i>Additional factors</i>			
Age	26.42	5.30	.111*
BMI	23.96	4.97	-.012
Body image satisfaction	1.38	1.09	-.125**
Exercise habits	3.81	1.82	.043
Psychosomatic symptoms	19.18	5.11	-.214**
Depressive symptoms	17.85	10.93	-.309**
Positive affect	14.53	3.63	.204**
Negative affect	10.66	3.81	-.212**

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

The two variables representing the total scales, SE and SI, and the dependent variable had a significant correlation at small to medium strength ($r = .29$, $r = -.35$). When examining the subscales, the SI subscale Arousal Contingency was the most significantly correlated with sexual functioning ($r = -.40$, $p < .001$), followed by Concerns about Sexual Function ($r = -.30$, $p < .001$). There was no significant relationship between Partner Characteristics, Smell, and sexual functioning. The other subscales had significant correlations ranging from $r = -.15$ to $r = .27$.

The association between sexual excitation, inhibition, and functioning was further examined using standard linear multiple regression analysis. SE and SI correlated negatively ($r = -.24$, $p < .001$). The regression model is presented in Table 3. As expected the model was significant ($F(2, 424) = 43.774$, $p < .001$). The Dual Control Model explained 17.2 % of the variation of sexual functioning. The variable with the highest predictive value was SI ($b = -.301$, $t(445) = -6.611$, $p < 0.001$) followed by SE ($b = .223$, $t(436) = 4.899$, $p < 0.001$).

Table 3

Sexual functioning explained with standard multiple linear regression – SI/SE scales.

	B	SE B	β
Sexual excitation	.232	.047	.223***
Sexual inhibition	-.431	-.065	-.301***

$R^2 = .172$, R^2 change = .172

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

We further explored the association by examining which subscales of SES and SIS predicted higher sexual functioning using linear multiple regression analysis. The regression model was significant ($F(8, 434) = 16.400$, $p < .001$). The model is presented in Table 4. The six predictors explained 23.2 % of the variation of sexual functioning, which is 6 % more than the two total scales. The variable with the highest predictive value was Arousal Contingency ($b = -.258$,

$t(457) = -5.118, p < .001$) followed by Concerns about Sexual Function ($b = -.157, t(455) = -3.268, p < .001$) and Sexual Power Dynamics ($b = .131, t(456) = 2.894, p = .004$). Featured in the model Relationship Importance had no significant relationship to sexual functioning.

Table 4

Sexual functioning explained with standard multiple linear regression – SE/SI subscales.

	B	SE B	β
SE Arousability	.232	.105	.111*
SE Sexual Power Dynamic	.434	.150	.131**
SE Setting	.312	.155	.092*
SI Concerns about Sexual Function	-.515	.158	-.157**
SI Arousal Contingency	-1.046	.204	-.258***
SI Relationship Importance	.031	.111	.013

R² = .232, R² change = .232

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

These results show that there is an association between sexual excitation, sexual inhibition, and sexual functioning.

To assess whether other factors than sexual excitation and sexual inhibition explained significantly variation in sexual functioning, a linear multiple regression analysis was conducted.

Since the subscales of SE and SI could to a higher degree explain variability in sexual function than the total scales of SE and SI, these were instead featured in the model. Amongst the 15 independent variables, only BMI, exercise habits and Partner Characteristics were not significantly correlated with the dependent variable. The other variables correlated with sexual functioning at low to medium strength, ranging from $r = .08$ to $.40$. See Table 2.

The regression model was significant ($F(16, 461) = 10.053, p < .001$), see Table 5. The model explained 29.1 % of the variation of sexual functioning. When controlling for sexual excitation and sexual inhibition, only one of the predictors showed a significant relationship,

depressive symptoms ($b = -.212$, $t(447) = -2.610$, $p < .01$). Age, positive affect, negative affect, BIS and psychosomatic symptoms were not significant predictors of sexual functioning.

Table 5

Sexual functioning explained with standard multiple linear regression – SE/SI subscales, PANAS, CES-D, age, psychosomatic symptoms, BIS.

	B	SE B	β
SE Arousability	.239	.107	.114*
SE Sexual Power Dynamic	.475	.153	.143**
SE Setting	.322	.158	.095*
SI Concerns about Sexual Function	-.397	.162	-.121*
SI Arousal Contingency	-.912	.210	-.225***
SI Relationship Importance	.079	.114	.032
Positive affect	-.006	.128	-.003
Negative affect	-.015	.143	-.007
Depressive symptoms	-.162	.062	-.212**
Age	.116	.072	.074
Psychosomatic symptoms	-.028	.093	-.017
Body image satisfaction	-.284	.390	-.037

R² = .291, R² change = .291

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

An independent t-test was conducted to explore if there was a difference in sexual functioning depending on level of education. Subjects were divided into two groups; gymnasium ($M=23.81$, $SD=9.27$) or post-gymnasium ($M=25.00$, $SD=8.17$). No significant difference was found between the groups ($t(457) = -1.081$, $p = .280$). Also, a one-way between-groups analysis of variance was conducted to explore if there was difference in sexual functioning depending on current choice of contraceptive. The participants were divided into five groups; no contraceptive, combined oral contraceptives, condom, copper IUD and progestine-only oral contraceptives. No significant difference was found between the groups ($F(28, 432) = 65.56$, $p = .552$).

An independent-samples t-test was also conducted to compare sexual function between

two groups; participants using any kind of HC and participants not using HC. There was no significant difference in scores between the HC group ($M=25.18$, $SD=8.74$) and the non-HC group ($M=24.68$, $SD=8.06$; $t(452)=-.621$, $p=.535$).

The results presented above show that some additional factors each had a significant correlation to sexual function. However, when examined further and when controlling for SES and SIS, only depressive symptoms was a significant predictor alongside SES and SIS.

Discussion

Sexual functioning is for most people a highly important part of life and one's well-being. Having problems in this area is associated with high levels of comorbidity with a lot of other undesirable conditions such as cardiovascular diseases, diabetes, anxiety, and depression (Heiman, 2002). To sort out what components that might affect an individual's sex life is therefore of great importance in order to be able to promote health. This study tested the Dual Control Model as a theoretical explanation of female sexual functioning in a Swedish sample. The association between sexual functioning, and sexual excitation and inhibition has been further explored in relation to emotion based, social based, and psychosomatic based characteristics of the sample.

The overall results on sexual excitation and sexual inhibition suggest that the Dual Control Model can be used in a female Swedish sample. This supports the first hypothesis that sexual excitation and inhibition can explain the variation in sexual function and that low levels of sexual excitation and high levels of sexual inhibition predicts low sexual functioning.

A further hypothesis was that other factors significantly would explain sexual functioning. However, the results of the present study indicate that additional factors, when

including SE and SI, did not explain sexual functioning to the extent that previous research findings has suggested.

Sexual excitation and sexual inhibition. Scores on sexual excitation and inhibition were close to normally distributed in the current sample. This is in accordance with previous research (Graham et al., 2006). As described in the theory of the Dual Control Model, humans vary in the excitation and inhibition mechanisms, and for the majority these variations are adaptive and non-problematic. The distribution of the current sample lends support to this assumption, with the mid-part of the range representing adaptive levels of excitation and inhibition. The results showed that sexual excitation and sexual inhibition were significantly associated to sexual functioning, which supports the hypothesis. The study showed a positive correlation between sexual excitation and sexual functioning; the higher sexual excitation the higher sexual functioning. On the contrary, there was a negative correlation between sexual inhibition and sexual functioning, the higher sexual inhibition the lower sexual functioning. Featured in a model, the two components could explain 17.2 % of the variation of sexual functioning. Considering that sexual function is complex, the fact that SE and SI alone could explain nearly 20 % of the variation provides strong support for the impact of the Dual Control Model. Sexual inhibition was the variable that predicted sexual functioning the most, indicating that factors that make a person feel inhibited sexually affect her sexual functioning more than the factors that makes her feel sexually excited. This is in line with previous research (Bloemendaal & Laan, 2013; Sanders et al., 2008).

One possible explanation for that SI had a stronger effect on sexual function could be that cognitions and physical processes activated by the inhibitory system intervene and thereby interfere with the cognitions and physical processes that enable sexual excitation. Our finding

that there was a significant negative correlation between the total SE and SI scales further strengthens this possible underlying mechanism. The results indicate that there is a relationship between SE and SI, which contradicts the notion that the inhibitory and the excitatory systems are separate and relatively independent of each other (Bancroft & Janssen, 2000) and that one can have both high levels of excitation and inhibition. This might implicate that the Dual Control Model needs further refinement of the given assumption of the model.

When examining the subscales of sexual excitation and sexual inhibition, they could together explain 23.2 % of the variations of sexual functioning. Notably, the subscales of SE and SI explain sexual functioning to a further extent than the total scales of SE and SI. This could be due to that some of the subscales did not significantly explain sexual function, and featured in the model of the total scales the differentiation of the subscales was not visible.

Overall, our results concerning the specific subscales of SE and SI imply that there are predominantly two factors related to sexual inhibition that affect people's sexual functioning the most. The factor that to the highest degree could predict sexual functioning was Arousal Contingency. This subscale measures an individual's ability to sustain sexual arousal and our results indicate that being easily disturbed or experiencing that everything has to be "just right" in order to get aroused makes a person more vulnerable for sexual dysfunction. The subscale indicates level of cognitive interference, such as distraction, and it seems to be highly present for women with sexual dysfunctions. The factor that could predict sexual functioning the most after Arousal Contingency was Concerns about Sexual Function. This subscale measures a person's tendency to worry about getting aroused or reaching climax. The subscale is related to performance anxiety, and it is reasonable to assume that being preoccupied with the sexual performance might have a negative impact on sexual function. Vice versa, it is also reasonable to

assume that when experiencing sexual dysfunctions preoccupations with the sexual performance increases. This result is in line with previous research (Bloemendaal & Laan, 2013; Sanders et al., 2008).

The subscales Smell, Partner Characteristics and Relationship Importance were not significantly predictive to sexual functioning. The results indicate that increased sexual arousal due to olfactory stimuli does not influence sexual functioning, which is in line with previous research (Bloemendaal & Laan, 2013; Sanders et al., 2008). Stimuli related to a partner's personality or behavior that may be sexually arousing is not related to sexual functioning. Neither does the need for sex to occur within a specific relationship context have an impact on sexual functioning. This finding is unexpected in relation to recently developed theories and models about sexual response. Tiefer and colleagues (2002) emphasise the relational context in which sexual responses often occur, proposing that this has a heavy impact on sexual functioning. Our results can be understood as indicating the opposite. But it is also possible that these factors, or the items operationalizing them, do not capture the association between the relational context and sexual functioning correctly.

Additional factors. Because the eight subscales of SE and SI could explain more variation than the two total scales they were included when performing analyses on the additional factors. When examining the preliminary correlations, BMI and exercise habits did not significantly correlate with sexual functioning, while the remaining factors did. Regarding BMI, this result is partly contradictory to previous research. This should not be due to methodological issues since the measurement of BMI being used is highly reliable. However, the BMI only measured the relation between weight and height without taking other factors, such as for example muscle mass into consideration. Thus, the result of the present study simply suggests

that women's BMI does not correlate to their sexual functioning. On the contrary, the non-significant correlation between exercise and sexual function could be explained by the way it is assessed in the present study. Measuring exercise habits more extensively could perhaps have given a different result.

The associations were further examined with a regression model. The model explained 29.1 % of the variation of sexual functioning. However, only depressive symptoms featured as a significant predictor of sexual problems, when controlling for the subscales of sexual excitation and inhibition. Positive affect and negative affect, age, BIS, and psychosomatic symptoms were not significant predictors of sexual functioning. Considering the Dual Control Model and its emphasis of other factors influence on sexual functioning, these results were unexpected. However, having the conflicting results of previous research in mind, this supports the notion that one cannot study sexual functioning in a reliable way without taking the sexual excitation and inhibition mechanisms into account. Previous studies could have established correlations between these factors and sexual function partly because of third variable problems, the third variable being SE/SI.

The sample consisted of participants in the ages 18-40 and the results showed that age could not predict sexual function. However, this result suggests that age is not a significant factor in early adulthood specifically. It still may be an important factor when looking at broader age samples.

BIS did not significantly predict sexual function. The reason why BIS does not seem to matter to women's sexual functioning is not clear. Though, the chosen measure of BIS was a short 2-item scale and there are more extensive questionnaires available. It is possible that if measured more carefully the association to sexual function would be different.

The participants using HC did not have significantly different sexual function than participants using other choices of contraception. This might be due to the cross-sectional design of the current study. In order to establish the potential impact of HC on sexual function longitudinal studies are needed.

Among the additional factors only depressive symptoms featured as a significant predictor of sexual functioning. The Dual Control Model could provide understanding of why this may be. Depression is associated with a heavy impact on physical, cognitive and emotional functioning (American Psychiatric Association, 2000). As it affects basic needs such as appetite and sleep, it is therefore reasonable to believe that it also has a negative impact upon sexual functioning. Symptoms of depression could contribute to a decrease of sexual excitation or an increase in sexual inhibition. For instance, negative thoughts might interfere with the cognitive processes needed for attaining and sustaining sexual arousal.

The overall results underline the importance of exploring which individual characteristics that could help explain sexual functioning, in relation to sexual excitation and sexual inhibition. Several significant correlations were found but when featured in a model, only depressive symptoms were a significant predictor of sexual function. A possible implication of the current result is that SE/SI should be included in further research of sexual functioning, as other factors might be perceived as more important than they actually are.

Strengths and limitations. There are several limitations and strengths to the current study. The design of the study was cross-sectional. This means that our results only reflect the functioning of the participants at the moment when they took part in the study. This design allowed a collection of a lot of valuable information about sexual functioning in a short amount of time. By performing this kind of study, which is easy and quick to participate in, it is also

reasonable to believe that a broader range of individuals participated that constituted a better representation of the population. Furthermore, the aim of the present study was to explore if the Dual Control Model could be used to explain sexual function in a Swedish sample, which makes the cross-sectional design an appropriate choice. However, in order to describe if and how sexual function changes over time, a longitudinal design would be preferable. The data was collected via a survey-based design. The majority of the scales included have been validated and shown good psychometric properties. Furthermore, the self-constructed scales had acceptable levels of Cronbach's alpha. However, there is always reason to question the reliability of survey based data and one cannot be sure that the survey actually measures what was intended. This concern is especially true when it comes to the scales that were self-constructed because of the lack of psychometric properties. The size of the survey is beneficial since that gave the opportunity to capture more of the complexity of sexual functioning. A pilot study was conducted with nine persons from the expected sample. By doing so the validity of the survey was increased. The validity of survey-based studies is always an issue, since the questionnaires chosen can be said to reflect the author's knowledge and perspectives. The size of the sample (N=461), which can be considered large, also contributes to greater power and increases the ability to answer the research questions.

Using data from a convenience sample recruited via Internet has both pros and cons. A possible strength is the anonymity associated with Internet-based surveys, which could facilitate for participants to give honest answers about sensitive topics such as sexual functioning. It could have facilitated for the participants to answer more truthfully to the private questions about their sex lives than by answering the questions for example in a face-to-face interview.

The recruitment via social media channels could have influenced the sample. The

individuals represented on twitter.com and facebook.com might not represent the population. This could explain that the proportion of people with a University degree is approximately twice as big in our sample than in the Swedish population (Organisation for Economic Co-operation and Development, 2013), which in turn could affect the external validity of the results. Due to the concept of Twitter specifically, there is a tendency that your message mostly reach people that are similar to yourself. Thus, since the author who posted the message on twitter.com is a university student it could at least partly explain the skewness in that variable.

The age limit set for the current sample included participants in early adulthood and excluded women younger than 18 and older than 40 years. This affects the representativeness of the results. How the Dual Control model fits to a wider age range is not explored in the current study.

Another possible limitation is the inclusion criterion concerning sex. The web link was advertised as seeking "people with a uterus". Entering the survey the first question was "Were you born with biologically female sex?". Answering "No" led the participants to the final page of the survey and they were thus not permitted to participate further in the survey. The inclusion criterion was chosen because the survey included several items asking about processes focused on the female biology, for example lubrication and vaginal penetration. To direct the study towards people with a uterus could have made individuals with female sex, but without a uterus, abstain from participating and this was not the purpose of our message. Likewise, a person born with biologically female sex that have had sex reassignment surgery (SRS) could participate in the survey. Vice versa, a person born with biologically male sex that have had SRS could not participate in the survey. Additionally, people with a uterus, or biologically female sex, who do not identify themselves as women are included in the sample. This affects to which extent one

can generalize the results to the population. In order to make statements about women, it is of course crucial to include people identifying themselves as women. This limitation contributes to further caution in regard of drawing any definite conclusions from the results of the study.

Finally, there are likely to be other factors that might affect sexual functioning other than those included in our study, for example alcohol use, sexual dysfunction in one's partner and experience of sexual trauma. Inclusion of a wider range of possible impacting factors was beyond the scope of this study due to limitations around survey length. It was anticipated that if survey completion exceeded 20 minutes that dropout rates would become problematic. Since the aim of the study was to explore sexual function and dysfunction and capture the complexity by collecting data on several variables, the questionnaire originally turned out to be very extensive. The length of the questionnaire was one of the recurring issues in the feedback from the pilot study. Some of the instructions were therefore decided to be shortened. Making changes in validated scales are always to be considered as a possible weakness. However, the estimation was made that every shortening that could be done was of value since the reported overtiring effects from the pilot study. The internal loss due to not completing the survey was 23.8 %. Feedback from the actual study was given from several participants, stating that the length after the adjustments were made was no longer an issue. Time estimates ($M=19.4$ minutes) also confirms that the adjustments made shortened the average time used to complete the survey.

Future research. Preliminary research has shown that SE and SI might look different depending on sexual orientation (Bancroft et al., 2009). This was not assessed in the current study. Additionally, cases of asexuality were identified in the sample. However, all the different orientations were grouped together in the current study and future research could explore this subject further.

According to the theory, SE and SI are traits rather than states (Bancroft & Janssen, 2000). Due to the cross-sectional design of the present study this assumption could not be explored. Using a longitudinal design one could answer the question if SI and SE are stable over time or fluctuate depending on current status of sexual functioning.

Overall, more studies are needed with other samples, for example with participants representing a wider age range, to further strengthen our findings and increase the external validity of the results. Future research is needed to incorporate other factors relating to sexual functioning that the current study did not assess. Also, studies aiming specifically at women seeking clinical help for sexual dysfunctions are called for.

Further discussion. 45.3 % of our sample consisted of women with sexual dysfunction, as measured with the FSFI (Rosen, et al., 2000), using a validated cut-off score (Wiegel, et al., 2005). This is corresponding to numbers from prevalence studies previously made (Fugl-Meyer & Fugl-Meyer, 2002; Laumann, 1999). However, the figure is speculative and set without the clinical assessment of a professional. Furthermore, deciding what is functional and dysfunctional sexually is problematic. The diagnostic criteria in the DSM for sexual disorders has been criticized for being over inclusive and pathologizing normal variations of sexual behaviour (Tiefer, et al., 2002; Meana, 2012). The high prevalence of female sexual dysfunction, including our sample, might reflect that.

Implications. The findings of the current study emphasize that the two constructs of sexual inhibition and sexual excitation are valuable for the understanding of female sexual functioning. Furthermore, other factors previously associated with sexual function did not show any significant associations in the current study. This indicates that the Dual Control Model is more important than other factors when explaining sexual functioning. This also implies that it is

of great value to control for sexual excitation and sexual inhibition when testing other factors' affect on sexual function, since these seems to be more crucial. Our results indicate that the Dual Control Model may be a useful tool in the clinical treatment and prognostic assessment of female sexual dysfunction. To pinpoint risk factors making individuals more vulnerable to sexual dysfunction could enable the development of preventive interventions to a further extent.

Conclusion. To our knowledge, this is the first study using the Dual Control Model to explore female sexual functioning in a Swedish sample. The result showed that both sexual excitation and sexual inhibition were significant predictors of sexual function. This finding supports the Dual Control Model's assumption that low levels of SE and high levels of SI will make an individual more vulnerable to sexual dysfunctions. It also confirms the comorbidity of depressive symptoms and sexual dysfunctioning. Furthermore, other factors previously associated with sexual function did not show any significant associations in the current study. The finding indicates that SI and SE seem to be far more important. As stated in the introduction, to be able to promote health it is important to sort out what components might affect an individual's sex life, and the current study emphasize that the Dual Control Model can contribute to further establish the reasons for individual variability of sexual functioning.

Referenser

- American Psychiatric Association, 2000. Diagnostic and Statistical Manual of Mental Disorders, 4th edition. Author, Washington, DC.
- Aslan, E., Beji, N. K., Gungor I., Kadioglu, A. & Dikencik, B. K. (2008). Prevalence and risk factors for low sexual function in women: A study of 1,009 women in an outpatient clinic of a university hospital in Istanbul. *The Journal of Sexual Medicine*, 5, 2044-2052.
- Bancroft, J. (2009). *Human sexuality and its problems* (3rd ed.). Oxford, England: Elsevier.
- Bancroft, J. & Janssen, E. (2000). The dual control model of male sexual response: A theoretical approach to centrally mediated erectile dysfunction. *Neuroscience and Biobehavioral Reviews*, 23, 763-784.
- Bancroft, J., Graham, C. A., Janssen, E., Sanders, S. (2009). The dual control model: Current status and future directions. *Journal of Sex Research*, 46(2-3), 121-142.
- Basson, R., Berman, J., Burnett, A., Derogatis, L., Ferguson, D., Fourcroy, J., et al. (2000). Report of the International Consensus Development Conference on Female Sexual Dysfunction: Definitions and classifications. *Journal of Urology*, 163, 888-893.
- Basson, R. (2005). Women's sexual dysfunction: revised and expanded definitions. *Canadian Medical Association Journal*, 172(10), 1327-1333.
- Bengtsson, J., Lindholm, E., Nordgren, S., Berndtsson, I., Oresland, T. & Börjesson, L. (2011). Sexual function after failed ileal pouch-anal anastomosis. *Journal of Crohns and Colitis*, 5(5), 407-414.
- Benson, H., Babyak, M., Sherwood, A., Hill, E., Patidar, S., Doraiswamy, P. & Blumenthal, J. (2009). Effects of aerobic exercise on sexual functioning in depressed adults. *Mental Health and Physical Activity*, 2(1), 23-28.
- Bloemendaal, L. & Laan, E. (2013). The psychometric properties of the sexual excitation/sexual inhibition inventory for women (SESH-W) within a Dutch population. *Journal of Sex Research*, 0(0), 1-14.
- Burrows, L. J., Basha, M., & Goldstein A. T. (2012). The Effects of Hormonal Contraceptives on Female Sexuality: A Review. *The Journal of Sexual Medicine*, 9, 2213-2223.
- Carpenter, D., Janssen, E., Graham, C. A., Vorst, H., & Wicherts, J. (2008). Women's scores on the Sexual Inhibition/Sexual Excitation Scales (SIS/SES): Gender similarities and differences. *Journal of Sex Research*, 45, 36-48.
- Clayton, A. H. (2002). Female sexual dysfunction related to depression and antidepressant medications. *Current Women's Health Report*, 2, 182-187.

- Davis, A. R. & Castano, P. M. (2004). Oral contraceptives and libido in women. *Annual Review of Sex Research, 320-297*.
- Dennerstein, L., Alexander, J. & Kotz, K. (2003). The menopause and sexual functioning: A review of the population-based studies. *Annual Review of Sex Research, 14(1)*, 64-82.
- Erbil, N. (2013). The relationships between sexual function, body image, and body mass index among women. *Sexuality and Disability, 31*, 63-70.
- Field, A. (2013). *Discovering Statistics Using IBM SPSS Statistics*. Sage: Los Angeles.
- Fisher, T. D., Davis, C. M., Yarber, W. L., & Davis, S. L. (2010). *Handbook of Sexuality-Related Measures*. New York: Routledge.
- Fugl-Meyer & Fugl-Meyer. (2002). Sexual disabilities are not singularities. *International Journal of Impotence Research, 14*, 487-493.
- Graham, C. A., Sanders, S. A., Milhausen, R. R. & McBride, K. R. (2004). Turning on and turning off: a focus group study of the factors that affect women's sexual arousal. *Archives of Sexual Behavior, 33(6)*, 527-538.
- Graham, C. A., Sanders, S. A., Milhausen, R. R. (2006). The sexual excitation/sexual inhibition inventory for women: Psychometric properties. *Archives of Sexual Behavior, 35*, 397-409.
- Hamilton, L., Fogle, E. & Meston, C. (2007). The roles of testosterone and alpha-amylase in exercise-induced sexual arousal in women. *Journal of Sexual Medicine, 5*, 845-853.
- Heatherton, T. (1993). Body dissatisfaction, self-focus, and dieting status among women. *Psychology of Addictive Behaviors, 7(4)*, 225-231.
- Heiman, J. (2002). Sexual dysfunction: Overview of prevalence, etiological factors, and treatments. *The Journal of Sex Research, 39(1)*, 73-78.
- Janssen, E., McBride, K. R., Yarber, W., Hill, B. J., & Butler, S. M. (2008). Factors that influence sexual arousal in men: A focus group study. *Archives of Sexual Behavior, 37*, 252-265.
- Kennedy, S.H., Dickens, S.E., Eisfeld, B.S. & Bagby, R.M. (1999). Sexual dysfunction before antidepressant therapy in major depression. *Journal of Affect Disorders, 56*, 201-208.
- Laumann, E. O., Paik, A., Rosen, R. C. (2005). Sexual dysfunction in the United States. *The Journal of the American Medical Association, 281(6)*, 537-545.
- Levine, S. (2002). Reexploring the concept of sexual desire. *Journal of Sex & Marital Therapy, 28(1)*, 39-51.
- Lorenz, T. & Meston, C. (2013). Exercise improves sexual function in women taking

- antidepressants: Results from a randomized crossover trial. *Depression and Anxiety*, 31, 188-195.
- Lykins, A. D., Janssen, E. & Graham, C. A. (2006). The relationship between negative mood and sexuality in heterosexual college women and men. *The Journal of Sex Research*, 43, 136-143.
- Meston, C. & Gorzalka, B. (1995). The effects of sympathetic activation on physiological and subjective sexual arousal in women. *Behavioral Research and Therapy*, 33, 651-64.
- Meston, C. & Gorzalka, B. (1996). Differential effects of sympathetic activation on sexual arousal in sexually dysfunctional and functional women. *Journal of Abnormal Psychology*, 105, 582-591.
- Meana, M. (2012). *Sexual Dysfunction in Women. 1th ed.* Hogrefe Publishing.
- Organisation for Economic Co-operation and Development. (2013). *Education at a glance*. Retrieved May 7th, from: <http://www.ekonomifakta.se/sv/Fakta/Utbildning-och-forskning/Utbildningsniva/Hogskoleutbildade-25-64-ar>
- Pastor, Z., Holla, K. & Chmel, R. (2013). The influence of combined oral contraceptives on female sexual desire: A systematic review. *The European Journal of Contraception and Reproductive Health Care*, 18, 27-43.
- Process of translation and adaptation of instruments. (2013). Retrieved March 29th, 2014, from: http://www.who.int/substance_abuse/research_tools/translation/en
- Pujols, Y., Meston, C. M., Seal, B. N. (2009). The association between sexual satisfaction and body image in women. *The Journal of Sexual Medicine*, 7, 905-916.
- Rosen, R., Brown, C., Heiman, J., Leiblum, S., Meston, C., Shabsigh, R., et al. (2000). The female sexual function index (FSFI): A multidimensional self-report instrument for the assessment of female sexual function. *Journal of Sex and Marital Therapy*, 26, 191-208.
- Rosenberg, M. J., Waugh, M. S. & Meehan, T. E. (1995). Use and misuse of oral contraceptives: Risk indicators for poor pill taking and discontinuation. *Contraception*, 51, 283-288.
- Sand, M. & Fisher, W. (2007). Women's endorsement of models of female sexual response: The nurses' sexuality study. *The Journal of Sexual Medicine*, 4(3), 708-719.
- Sanders, S. A., Graham, C. A., Bass, J. L. & Bancroft, J. (2001). A prospective study of the effects of oral contraceptives on sexuality and well-being and their relationship to discontinuation. *Contraception*, 64, 51-58.
- Sanders, S., Graham, C. A. & Milhausen, R. (2008). Predicting sexual problems in women: The relevance of sexual excitation and sexual inhibition. *Archives of Sexual Behavior*, 37, 241-251.

- Sawyer, L. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied psychological measurement, 1*(3), 385-401.
- Sundell, K., Klint, J. & Colbjörnsen, M. (2007). Normbrott och psykisk ohälsa bland flickor och pojkar i årskurs sju och åtta – en studie av 1236 elevers enkätsvar vid tre tillfällen. (FoU rapport 2007:4). Stockholms stadsledningskontor: Forsknings- och utvecklingsenheten.
- Tiefer, L., Hall, M. & Tavis, C. (2002). Beyond dysfunction: A new view of women's sexual problems. *Journal of Sex & Marital Therapy, 28*, 225-232.
- Vetenskapsrådet (2011). *God forskningsetik*. Stockholm: Vetenskapsrådet. Retrieved March 15th, from: http://www.cm.se/webbshop_vr/pdf/2011_01.pdf
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*(6), 1063-1070.
- Weavers, A. D. & Byers, S. E. (2006). The relationships among body image, body mass index, exercise, and sexual functioning in heterosexual women. *Psychology of Women Quarterly, 30*, 333-339.
- Westhoff, C. L., Heartwell, S., Edwards, S., Ziemann, M., Stuart, G., Cwiak, C., Davis, A., Robilotto, T., Cushman, L., Kalmuss, D. (2007). Oral contraceptive discontinuation: Do side effects matter? *American Journal of Obstetrics & Gynecology, 196*, 412e1-412e7.
- Wiegel, M., Meston, C., & Rosen, R. (2005). The Female Sexual Function Index (FSFI): Cross validation and development of clinical cutoff scores. *Journal of Sex and Marital Therapy, 31*, 1-20.
- Witting, K. (2008). *Classification, comorbidity, heredity and risk factors of female sexual dysfunctions* (Academic dissertation, Department of Psychology, Åbo Akademi University). Åbo, Finland.
- Witting, K., Santtila, P., Jern, P., Varjonen, M., Wager, I., Höglund, M., et al. (2008). Evaluation of the female sexual function index in a population based sample from Finland. *Archives of Sexual Behavior, 37*, 912-92.
- Wångby, M., Magnusson, D. & Stattin, H. (2005). Time trends in the adjustment of Swedish teenage girls: A 26-year comparison of 15-year-olds. *Scandinavian Journal of Psychology, 46*, 145-156.

Appendix I.

Undersökning kring sexuell funktion**Sida 1**

Välkommen!

Använder du just nu webbläsaren Safari på en MacBook? Då rekommenderar vi dig att byta till en annan webbläsare (Chrome, Firefox eller dylikt) för optimal användning.

Sida 2

Hej!

Här har du en möjlighet att bidra med information till forskning kring vad som påverkar sexuell funktion. Vi är två psykologstudenter som skriver vår D-uppsats om detta. Vi är helt enkelt nyfikna på att undersöka vilka faktorer som påverkar sexuell upphetsning. Vad är det som påverkar ens upplevelse i sängkammaren?

Vi önskar att du som svarar är en person av biologiskt kvinnligt kön och är mellan 18-40 år.

Enkäten är uppdelad i olika avsnitt och innefattar bland annat frågor kring sexliv, bruk av preventivmedel, motionsvanor, kroppsliga besvär, mående och känslor.

Deltagandet är helt anonymt, inga personuppgifter samlas in och inga deltagare kommer att kunna identifieras då dataanalysen genomförs på gruppnivå. Det är frivilligt att delta i undersökningen och du har möjlighet att när helst du önskar avbryta din medverkan. Du har även möjlighet att avstå från att svara på frågor utan att avbryta din medverkan. Undersökningen tar ca 20 min att genomföra.

Klicka på Nästa för att starta undersökningen och därmed godkänna villkoren för att delta.

Tack på förhand.

Vid vidare frågor eller funderingar kontakta:
daniella.blj@gmail.com eller lina.ekeroth@gmail.com

Sida 3

Är du född med biologiskt kvinnligt kön?

Ja

Nej

Sida 4

Bakgrundsfakta

1) Hur gammal är du?

år

2) Högsta utbildningsnivå (avslutad eller pågående)

Grundskola

Gymnasiet

Universitet

Eftergymnasial yrkesutbildning

Annat

3) Nuvarande huvudsakliga sysselsättning

- Heltidsanställd
- Deltidsanställd
- Arbetslös
- Student
- Annat

4) Hur mycket väger du? kg**5) Hur lång är du?** cm**6) Använder du några mediciner (exklusive preventivmedel)?**

- Ja
- Nej

7) Om ja, vilken/vilka typer av mediciner?**8) Har du någonsin varit deprimerad?**

- Ja (diagnosticerad av exempelvis en läkare eller psykolog)
- Ja (självdagnosticerat utan hjälp av en yrkeskunnig)
- Nej

9) Har du barn?

- Ja
- Nej

Sida 5**Sex och relationer**

1) Sexuell läggning

- Bisexuell
- Homosexuell
- Heterosexuell
- Asexuell
- Annat
- Vill ej definiera

2) Civilstatus

- Singel
- I ett förhållande
- Sambo
- Gift
- Annat

3) Hur länge har du varit singel/i ett förhållande, etc? Avrunda till närmaste år i heltal.

- Mindre än 1 år
- 1-2 år
- 3-4 år
- Över 5 år

4) Vilken typ av sexuell relation har du?

Den här frågan syftar endast till din(a) sexuella relation(er) och behöver inte nödvändigtvis vara synonymt med pojkvän/flickvän/make/maka, etc.

- Monogam/exklusiv
- Icke-monogam/icke-exklusiv
- Inte i en sexuell relation
- Annat

5) Hur gammal var du vid din sexualdebut?

Sexualdebut syftar här till en sexuell aktivitet som inkluderat minst en annan person och stimulering av ett könsorgan, t ex petting.

år

6) Hur viktigt är det för dig att ha ett tillfredsställande sexliv?

- 1 Inte alls viktigt 2 3 4 5 Extremt viktigt

Sida 6**Preventivmedel****1) Har du någonsin använt hormonella preventivmedel?**

T ex kombinerade p-piller, mini-piller, p-stav, p-ring eller hormonspiral.

- Ja
- Nej

2) Nuvarande preventivmedel

Markera ditt nuvarande val av preventivmedel. Om du för närvarande använder flera alternativ i kombination, markera dem alla.

- Mini-piller (t ex Cerazette)
- Kombinerade p-piller (t ex Neovletta, Trionetta, Trionelle, Zoely)
- P-ring (t ex Nuvaring)
- Hormonspiral (t ex Mirena)
- P-stav (t ex Implanon)
- Kondom
- Pessar
- Kopparspiral
- Avbrutet samlag
- P-dator (t ex Pearly, Lady-Comp)
- Inget
- Annat

3) Om du markerat "Inget" som svar på frågan ovan, vänligen ange din anledning.**4) Hur länge har du använt ditt nuvarande val av preventivmedel? Ange ditt svar i antal månader.**

Om du för närvarande inte använder något preventivmedel, ange då hur länge denna period har varat.

 månader**5) Har du upplevt några biverkningar av ditt nuvarande preventivmedel. Om ja, vilken/vilka biverkning(ar) har du upplevt?**

- Fysiska biverkningar (t ex viktuppgång, smärta)
- Problem med oregelbundna blödningar eller mellanblödningar
- Emotionella biverkningar (t ex försämrat humör eller ökad irritabilitet)
- Sexuella biverkningar (t ex minskad sexlust)
- Inga biverkningar
- Använder inget preventivmedel
- Annat

6) Senast använda preventivmedel (innan ditt nuvarande val)

Markera ditt senaste val av preventivmedel innan det du använder nu. Om du har använt flera innan det du använder nu, kryssa då endast för det allra senast använda. Om du använt flera preventivmedel i kombination, markera då samtliga.

- Mini-piller (t ex Cerazette)
- Kombinerade p-piller (t ex Neovletta, Trionetta, Trionelle, Zoely)
- P-ring (t ex Nuvaring)
- Hormonspiral (t ex Mirena)
- P-stav (t ex Implanon)
- Kondom
- Pessar
- Kopparspiral
- Avbrutet samlag
- P-dator (t ex Pearly, Lady-Comp)
- Inget
- Annat

7) Varför slutade du eller bytte till ditt nuvarande val av preventivmedel?

Markera upp till 3 orsaker för att ha slutat eller bytt.

- Fysiska biverkningar (t ex viktuppgång, smärta)
- Emotionella biverkningar (t ex försämrat humör eller ökad irritabilitet)
- Sexuella biverkningar (t ex minskad sexlust)
- Problem med oregelbundna blödningar eller mellanblödningar
- Inget behov
- Logistiska anledningar (t ex produkten har tagit slut eller har ej råd att förnya receptet)
- Annat

Sida 7**Motionsvanor****1) Skatta i snitt hur intensiv din fysiska aktivitet är.**

- Tränar inte
- Lätt
- Medel
- Intensiv
- Elitnivå

2) När du är fysiskt aktiv, vilken typ av träning ägnar du dig åt?

- Tränar inte
- Vardagsmotion (hundpromenad eller liknande)
- Konditionsträning (aerobics, spinning, löpning eller liknande)
- Styrketräning
- Annat

3) Hur ofta är du fysiskt aktiv på din fritid så att du får pulsökning (blir andfådd), blir svettig eller får uttröttade muskler, under en sammanhållen tid av minst 15 minuter?

- Aldrig
- Någon gång/månad
- En gång/vecka
- 2-3 gånger/vecka
- 4-5 gånger/vecka
- 6 eller fler gånger/vecka

4) Hur upplever du din fysiska hälsa i dagsläget?

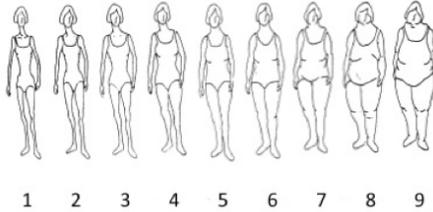
- Mycket tillfredsställande
- Tillfredsställande
- Ganska tillfredsställande
- Ganska otillfredsställande
- Otillfredsställande
- Mycket otillfredsställande

Sida 8

Kroppsliga besvär

Nedan vill vi att du markerar de kroppsliga besvär du haft under den senaste månaden samt hur ofta du haft dem.

	I stort sett dagligen	Några ggr/vecka	Några ggr/månad	Har ej besvärats
Magont eller magbesvär	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Huvudvärk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yrsel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Illamående	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nedstämdhet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Klåda eller hudbesvär	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Värk i armar, ben, nacke, skuldror	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Svårigheter att koppla av	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aptitlöshet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Svårt att sova	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Sida 9**Kroppsuppfattning**

Utgå ifrån bilden ovan när du svarar på frågorna nedan.

Baserat på ovanstående figurer, markera den siffra som bäst representerar hur du ser ut för närvarande.

- 1 2 3 4 5 6 7 8 9

Baserat på ovanstående figurer, markera den siffra som bäst representerar hur du idealiskt skulle vilja se ut.

- 1 2 3 4 5 6 7 8 9

Sida 10**Sexuell upphetsning**

Det här avsnittet av formuläret frågar efter saker som kan påverka din sexuella upphetsning. Andra sätt som vi benämner sexuell upphetsning är att vara "tänd", "kåt" och "upphetsad". Sexuell upphetsning kan inkludera förändringar i underlivet (att bli våt, pirrande, att känna en hetta eller värme, osv) likväl som icke-genitala förmimmelser (ökad puls, ökad kroppstemperatur, ökad känslighet för beröring, osv) eller känslor (förväntan, att känna sig "sexig", osv).

Vi är intresserade av vad som skulle vara den mest typiska reaktionen för dig nu. Det är möjligt att du läser ett påstående som du känner inte passar in på dig, eller som har passat in på dig tidigare men som inte gör det längre. I sådana fall, vänligen markera hur du tror att du skulle reagera, om du var i den situationen nu. Vissa av dessa frågor låter väldigt lika men är i själva verket olika. Var snäll och läs varje påstående noggrant och marker den siffra som stämmer in på dig.

Tänk inte efter för länge innan du svarar. Var snäll och ange din första reaktion på varje fråga.

Sexuell upphetsning

	Håller inte alls med	Håller inte med	Håller med	Håller verkligen med
1) Om jag tror att en partner skulle kunna såra mig emotionellt så bromsar jag mig sexuellt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) Det tändar mig om min partner pratar snuskigt (eng. talk dirty) med mig när vi har sex.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) Att ha sex på andra platser än vanligt är verkligen upphetsande för mig.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) Om det är möjligt att någon annan kan se eller höra oss när vi har sex är det svårare för mig att bli upphetsad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) Någon som gör något som visar att hen är intelligent tändar mig.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6) Att känna mig dominerad av någon jag litar på i en sexuell situation ökar min upphetsning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7) Jag tycker att det är svårare att bli sexuellt upphetsad om det finns andra människor i närheten.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8) Om jag ser en partner interagera bra med andra blir jag lättare sexuellt upphetsad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9) Om jag oroar mig för att vara bra i sängen är det mindre troligt att jag blir upphetsad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10) Att se en partner göra något som visar att hen har talang kan göra mig väldigt upphetsad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11) Det skulle vara svårt för mig att bli sexuellt upphetsad med någon som är tillsammans med en annan person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12) Att ha ögonkontakt med någon som jag tycker är sexuellt attraktiv tändar mig verkligen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13) Jag blir väldigt kåt om jag tror att jag kan bli upptäckt när jag har sex.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14) Om jag tror att en person utnyttjar mig för sex blir jag helt avtänd.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15) Att se en attraktiv partners nakna kropp gör mig verkligen tänd.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16) Det är lättare för mig att bli upphetsad med någon som har "relationspotential".	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Fortsättning sexuell upphetsning

	Håller inte alls med	Håller inte med	Håller med	Håller verkligen med
17) Bara att vara fysiskt nära en partner är tillräckligt för att göra mig kåt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18) Om jag tänker på huruvida jag kommer att uppnå orgasm eller inte, så är det mycket svårare för mig att bli upphetsad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19) Jag blir väldigt upphetsad när någon verkligen vill ha mig sexuellt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20) Att fantasera om sex kan snabbt göra mig sexuellt upphetsad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21) Om jag är osäker på hur min partner känner för mig så har jag svårare för att bli upphetsad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22) Vissa dofter är väldigt upphetsande för mig.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23) Bara hur någon doftar kan ofta göra mig kåt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24) När jag tänker på någon som jag tycker är sexuellt attraktiv så blir jag lätt upphetsad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25) När jag är med en ny partner har jag lätt för att bli upphetsad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26) Om jag ser någon som är sexigt klädd så har jag lätt för att bli upphetsad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27) Om en partner agerar tvingande under sex minskar det min upphetsning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28) Att sexuellt dominera min partner gör mig kåt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29) Ibland känner jag mig så blyg eller självmedveten under sex att jag inte kan bli ordentligt upphetsad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30) Vissa hormonella förändringar ökar definitivt min sexuella upphetsning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31) Om jag oroar mig för att det ska ta för lång tid för mig att bli våt kan det störa min upphetsning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32) Ibland är jag så attraherad av någon att jag inte kan hejda mig från att bli kåt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33) Jag behöver verkligen lita på en partner för att kunna bli fullständigt upphetsad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34) Det är svårt för mig att bibehålla sexuell upphetsning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35) När jag är sexuellt upphetsad kan minsta grej göra mig avtänd.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36) Såvida inte saker och ting är "precis rätt" är det svårt för mig att bli sexuellt upphetsad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Sida 12**Sexuell funktion**

Nedan följer ett antal frågor om dina sexuella känslor och upplevelser under de senaste fyra veckorna.

När du svarar på dessa frågor lyder följande definitioner:

Sexuell aktivitet kan ske på egen hand eller inkludera en eller flera personer. Det syftar på smekningar, oralsex, petting, onani, samlag samt annan vaginal och anal penetration.

Sexuell lust syftar på en känsla som inkluderar att vilja ha en sexuell upplevelse, känna sig mottaglig till en annan persons sexuella initiering samt att tänka på eller fantasiera kring sexuella aktiviteter.

Sexuell upphetsning syftar här på att vara fysiskt "tänd". Tillståndet kan innefatta att musklerna spänns, blygdläpparna svullnar upp och att en blir varm och våt i underlivet.

Sexuell stimulering syftar på allt som skapar sexuell upphetsning, t ex se på porr, ha sexuella fantasier eller ägna sig åt sexuella aktiviteter.

1) Hur ofta har du känt sexuell lust eller intresse under de senaste 4 veckorna?

- Nästan alltid eller alltid
- För det mesta (mer än halva tiden)
- Ibland (ungefär hälften av tiden)
- Några gånger (mindre än halva tiden)
- Nästan aldrig eller aldrig

2) Hur uppskattar du din nivå av sexuell lust eller intresse den senaste 4 veckorna?

- Väldigt hög
- Hög
- Moderat
- Låg
- Väldigt låg eller obefintlig

3) Under de senaste 4 veckorna, hur ofta kände du dig sexuellt upphetsad ("tänd") under sexuell aktivitet eller samlag?

- Ingen sexuell aktivitet
- Nästan alltid eller alltid
- För det mesta (mer än hälften av tiden)
- Ibland (ungefär hälften av tiden)
- Några gånger (mindre än hälften av tiden)
- Nästan aldrig eller aldrig

4) Under de senaste 4 veckorna, hur uppskattar du din nivå av sexuell upphetsning under sexuell aktivitet eller samlag?

- Ingen sexuell aktivitet
- Våldigt hög
- Hög
- Moderat
- Låg
- Våldigt låg eller obefintlig

5) Under de senaste 4 veckorna, hur trygg har du varit i din sexuella upphetsning vid sexuell aktivitet eller samlag?

- Ingen sexuell aktivitet
- Fullständigt trygg
- Mycket trygg
- Moderat trygg
- Låg trygghet
- Mycket lite eller inte trygg

6) Under de senaste 4 veckorna, hur ofta har du känt dig nöjd med din upphetsning under sexuell aktivitet eller samlag?

- Ingen sexuell aktivitet
- Nästan alltid eller alltid
- För det mesta (mer än hälften av tiden)
- Ibland (ungefär hälften av tiden)
- Några gånger (mindre än hälften av tiden)
- Nästan aldrig eller aldrig

7) Under de senaste 4 veckorna, hur ofta blev du våt under sexuell aktivitet eller samlag?

- Ingen sexuell aktivitet
- Nästan alltid eller alltid
- För det mesta (mer än hälften av tiden)
- Ibland (ungefär hälften av tiden)
- Några gånger (mindre än hälften av tiden)
- Nästan aldrig eller aldrig

8) Under de senaste 4 veckorna, hur svårt upplevde du det att bli våt under sexuell aktivitet eller samlag?

- Ingen sexuell aktivitet
- Extremt svårt eller omöjligt
- Våldigt svårt
- Svårt
- Något svårt
- Inte svårt

9) Under de senaste 4 veckorna, hur ofta kunde du behålla våthet under hela den sexuella aktiviteten eller samlaget?

- Ingen sexuell aktivitet
- Nästan alltid eller alltid
- För det mesta (mer än hälften av tiden)
- Ibland (ungefär hälften av tiden)
- Några gånger (mindre än hälften av tiden)
- Nästan aldrig eller aldrig

10) Under de senaste 4 veckorna, hur svårt var det för dig att behålla våthet under hela den sexuella aktiviteten eller samlaget?

- Ingen sexuell aktivitet
- Extremt svårt eller omöjligt
- Våldigt svårt
- Svårt
- Något svårt
- Inte svårt

11) Under de senaste 4 veckorna, hur ofta fick du orgasm av sexuell stimulering eller under samlag?

- Ingen sexuell aktivitet
- Nästan alltid eller alltid
- För det mesta (mer än hälften av tiden)
- Ibland (ungefär hälften av tiden)
- Några gånger (mindre än hälften av tiden)
- Nästan aldrig eller aldrig

12) Under de senaste 4 veckorna, hur svårt var det för dig att få orgasm vid sexuell stimulering eller under samlag?

- Ingen sexuell aktivitet
- Extremt svårt eller omöjligt
- Våldigt svårt
- Svårt
- Något svårt
- Inte svårt

13) Under de senaste 4 veckorna, hur nöjd har du varit med din förmåga att få orgasm vid sexuell stimulering eller under samlag?

- Ingen sexuell aktivitet
- Våldigt nöjd
- Ganska nöjd
- Varken nöjd eller missnöjd
- Ganska missnöjd
- Våldigt missnöjd

14) Under de senaste 4 veckorna, hur nöjd har du varit angående den känslomässiga närheten mellan dig och din(a) partner(s), under sexuell stimulering?

- Våldigt nöjd
- Ganska nöjd
- Varken nöjd eller missnöjd
- Ganska missnöjd
- Våldigt missnöjd
- Ingen sexuell aktivitet med en partner

15) Under de senaste 4 veckorna, hur nöjd har du varit beträffande ditt sexuella förhållande med din(a) partner(s)?

- Våldigt nöjd
- Ganska nöjd
- Varken nöjd eller missnöjd
- Ganska missnöjd
- Våldigt missnöjd
- Ingen sexuell aktivitet med en partner

16) Under de senaste 4 veckorna, hur nöjd har du varit med ditt sexliv totalt sett?

- Våldigt nöjd
- Ganska nöjd
- Varken nöjd eller missnöjd
- Ganska missnöjd
- Våldigt missnöjd

17) Under de senaste 4 veckorna, hur ofta har du upplevt obehag eller smärta under vaginal penetrering (som t ex vid samlag)?

- Inget försök till vaginal penetrering
- Nästan alltid eller alltid
- För det mesta (mer än hälften av tiden)
- Ibland (ungefär hälften av tiden)
- Några gånger (mindre än hälften av tiden)
- Nästan aldrig eller aldrig

18) Under de senaste 4 veckorna, hur ofta har du upplevt obehag eller smärta efter vaginal penetrering (som t ex samlag)?

- Inget försök till vaginal penetrering
- Nästan alltid eller alltid
- För det mesta (mer än hälften av tiden)
- Ibland (ungefär hälften av tiden)
- Några gånger (mindre än hälften av tiden)
- Nästan aldrig eller aldrig

19) Under de senaste 4 veckorna, hur uppskattar du din nivå av obehag eller smärta under eller efter vaginal penetrering (som t ex vid samlag)?

- Inget försök till vaginal penetration
- Våldigt hög
- Hög
- Moderat
- Låg
- Våldigt låg eller obefintlig

Sida 13

Mående

Nedan finns det beskrivet hur du kan ha känt dig eller uppfört dig under den gångna veckan. Vänligen markera det som bäst stämmer överens med dina känslor och upplevelser.

	Sällan eller aldrig	Ibland (1-2 dagar)	Ganska ofta (3-4 dagar)	Ofta eller hela tiden (5-7 dagar)
1) Jag blev irriterad över saker som normalt inte skulle irritera mig.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) Jag ville inte äta, jag hade ingen aptit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) Jag kände att jag inte kunde skaka av mig dystra känslor eller funderingar, trots hjälp från min familj eller vänner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) Jag kände att jag var lika bra som andra människor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) Jag hade svårt att koncentrera mig.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6) Jag kände mig deprimerad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7) Jag kände att allt jag gjorde var jobbigt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8) Jag kände mig hoppfull inför framtiden.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9) Jag tyckte att mitt liv var misslyckat.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10) Jag kände mig rädd.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11) Min sömn var orolig.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12) Jag var glad.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13) Jag pratade mindre än vanligt.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14) Jag kände mig ensam.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15) Människor var ovänliga.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16) Jag njöt av livet.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17) Jag hade gråtattacker.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18) Jag kände mig ledsen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19) Jag kände att människor tyckte illa om mig.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20) Jag kunde inte komma igång.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Sida 14**Känslor**

Följande påståenden handlar om hur du känt dig den gångna veckan.

Denna sida består av ett antal ord som beskriver olika känslor. Läs varje ord och markera hur du känner dig i allmänhet, dvs. hur du känner dig på det stora hela. Markera för varje ord det svarsalternativ som passar bäst in på dig.

	Mycket lite eller inte alls	Lite	Måttligt	En hel del	Väldigt mycket
1) Besvärad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) Upprymd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) Upprörd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) Skrämd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5) Entusiastisk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6) Pigg	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7) Inspirerad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8) Nervös	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9) Bestämd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10) Rädd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Sida 15

Tack så mycket för din medverkan!

Har du använt webbläsaren Safari på en MacBook när du svarade på denna enkät? *

Ja

Nej

» **Redirection to final page of WebbEnkäter**