

Relationship Satisfaction and Sexual Function in Females using Hormonal Contraceptives

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Subject: Psychology	
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Abstract: <i>Introduction:</i> According to the United Nations (2019) up to 43% of the worlds female population aged between 15-49 years was using some sort of hormonal contraceptive (HC) as a form of contraception. The aim of this study was to investigate the possible differences between hormonal contraceptive users and non-users regarding relationship satisfaction and sexual function in women, since there is still some confusion and uncertainty about possible side-effects HC can cause. Earlier research has found some contradicting results but suggested that there mostly is not a significant difference between HC users and non-users when it comes to relationship satisfaction and sexual function. <i>Method:</i> A large population-based sample of 2828 Finnish women was used for the study. Sexual function was measured using self-report questionnaires, which included the Female Sexual Function Index (FSFI), the Sexual Pleasure Scale (SPS), the Dyadic Sexual Communication Scale (DSC), as well as a two-question questionnaire about sexual satisfaction. For measuring relationship satisfaction, the Perceived Relationship Quality Component Scale (PRQC) was used. Analyses were conducted using generalized estimating equation (GEE) regression models. <i>Results:</i> The analyses found no significant differences between HC users and non-users regarding their relationship satisfaction or sexual function in the FSFI subdomains desire, arousal, satisfaction, lubrication. A significant difference was found in the sexual function domains for orgasm and pain so that HC users reported a worse orgasm functioning and higher levels of pain. <i>Discussion:</i> The results of the present study were similar to that of previous studies. The sample was large, which increases the generalizability of the results. The measures used were validated and they had good internal consistency. A limitation to this study was, that all data was collected through self-report questionnaires. This study is a good addition to the existing research, but further research is still needed.	
Keywords: hormonal contraception, sexual function, relationship satisfaction, sexual desire	
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Abstrakt: <p><i>Inledning:</i> Enligt FN (2019) använde upp till 43 % av världens kvinnliga befolkning i åldern 15–49 någon form av hormonellt preventivmedel som sitt preventivmedel. Syftet med denna studie var att undersöka möjlig skillnad i tillfredsställelse i parrelation och sexuell funktion mellan kvinnor som använder hormonella preventivmedel och icke-användare, eftersom det fortfarande råder viss förvirring och osäkerhet om möjliga biverkningar som hormonella preventivmedel kan orsaka. Tidigare forskning har hittat varierande resultat, men för det mesta föreslagit att användningen av hormonella preventivmedel inte signifikant påverkar tillfredsställelse i parrelationer eller sexuell funktion.</p> <p><i>Metod:</i> Ett stort befolkningsbaserat urval av 2828 finska kvinnor användes för studien. Sexuell funktion mättes med hjälp av frågeformulär som utnyttjade självrapportering. Denna samling av frågeformulär bestod av Female Sexual Function Index (FSFI), Sexual Pleasure Scale (SPS), Dyadic Sexual Communication Scale (DSC), samt ett frågeformulär med två frågor om sexuell tillfredsställelse. För att mäta tillfredsställelse i parrelation användes Perceived Relationship Quality Component Scale (PRQC). Analyser utfördes med användning av GEE-test (generalized estimating equations regression models).</p> <p><i>Resultat:</i> Analyserna fann inga signifikanta skillnader mellan kvinnor som använde hormonella preventivmedel och icke-användare när det gällde deras tillfredsställelse i parrelation och sexuella funktion i FSFI-subdomänerna lust, upphetsning, orgasm, smörjning. För sexuell funktion kunde en signifikant skillnad observeras i domänerna för orgasm om smärta så att kvinnor som använde hormonella preventivmedel rapporterade en sämre orgasmfunktion och högre nivåer av smärta.</p> <p><i>Diskussion:</i> Resultaten av denna studie liknade de som funnits i tidigare studier. Urvalet var stort, vilket ökar resultatens generaliserbarhet. De använda måtten var validerade och hade god intern konsistens. En begränsning för denna studie var att all data samlades in genom frågeformulär och självrapportering. Denna studie är ett bra tillägg till den existerande forskningen, men ytterligare forskning krävs fortfarande.</p>	
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1 Introduction

Different sorts of contraception have been used for millennia. The most common form of contraception today is some form of hormonal contraception (HC). It has been estimated that around the world 43% of women aged 15-49 years in 2019 were using some sort of HC. This included the usage of long-lasting contraception (a single use or insertion of the contraception will last for a long time) such as the intrauterine device (IUD) and an implant, as well as short-lasting contraception (needs to be consistently consumed or injected) such as an injectable contraception and a contraceptive pill (United Nations, 2019). Despite these numbers being quite high, in Western and Eastern Europe, areas which are considered to have good availability for both contraception and sexual education, there is still an estimated 34% to 54% of pregnancies that are unwanted (ESHRE Capri Workshop Group, 2018). Similarly, in the United States of America, around 3 million pregnancies yearly are unintended, which is close to half of all pregnancies in the USA (Guttmacher Institute, 2014). The most prevalent reasons for not using contraception are the fear of side effects and possible complications with health (Bellizzi et al., 2015). Therefore, it is important to study the possible effects of using HC to be able to make informed decisions about using or refraining from using it.

The present study will mainly focus on the possible differences in sexual function and relationship satisfaction between HC users and non-users.

1.1 Sexual function

According to Malmberg et al. (2015), women who use HC may see a decrease in their experienced sexual desire. Previous use of HC with an effect of reduced sexual desire also often leads to women having a higher probability of changing the form of contraception. On the contrary, a study conducted by Zethraeus et al. (2016) concluded that the usage of oral contraceptives did not show a significant change in the overall sexual functioning of women. Smith et al. (2014), in turn showed that using HC could negatively affect many parts of sexual function, such as experience of sexual pleasure, frequency of sexual activity, frequency of orgasms and the lubrication of the vagina. This was in comparison with using nonhormonal contraceptive methods. It is clear that the current research on the topic of to what extent HC affects women's sexual function is still lacking.

The existing research on this topic is still scant, and the conclusions from the studies that have been conducted thus far are in some cases in contradiction with each other. Since the existing data is lacking, the present study will have as one of its focal points to examine the possible differences in sexual function between women who use HC and those who do not use HC. The aim is to add to the existing research and contribute towards creating a better understanding and clarity on this matter.

1.2 Relationship satisfaction

Taggart et al. (2018) set out to research whether oral contraceptive users would have higher levels of relationship satisfaction than non-users and found that oral contraception users reported significantly higher levels of relationship satisfaction. The study showed that oral contraception users also reported higher levels of mood stability, which further indirectly positively affected the quality of relationships. Similarly, Jern et al. (2018) found a possible positive correlation between HC use and relationship satisfaction.

The existing literature on relationship satisfaction and HC, such as Roberts et al. (2014), has focused mostly on researching whether starting or stopping the usage of HC during a relationship affects the satisfaction experienced in that relationship. The present study will only focus on comparing using versus not using HC and the correlation with relationship satisfaction.

1.3 Hypothesis

The hypothesis for the present study is that HC users and non-users will show no significant difference in relationship satisfaction and sexual function. This hypothesis is based on previous studies, such as the systematic review by Both et al. (2019) and a study by Taggart et al. (2018) which conclude that small to no differences could be observed between HC users and non-users in these categories.

2 Method

The sample used in the present study is a subset of the Genetics of Sexuality and Aggression sample (GSA sample). The GSA sample is a large sample of twins from Finland collected through an online survey between November 2018 and January 2019. This online survey included a large number of different questions, whose purpose was to study different areas of mental health, relationships and sexuality. Of all invitations to the survey that were sent out, 9,564 persons responded to the survey and 9,319 of these agreed to allow their responses to be used for scientific purposes. For a full description of the collection of the data, see Tybur et al. (2020).

Since the present study aimed to study HC use in women, all the men were excluded from the sample, which meant that 3,214 men were removed from the sample. Since the present study will observe how hormones in HC affect women, other natural reasons for changes in hormone levels were excluded. This meant that women who were currently breastfeeding were excluded, and this amounted to 387 participants left out. Being pregnant also affects hormonal levels, so any women who were pregnant at the time of the survey were excluded. The number of pregnant women left out was 152. Since only women are included in the present study, only people who identified as women were included. Twenty-five persons were excluded who did not identify as women and were not excluded earlier by identifying as men either. The goal of the present study is to research how factors that are prevalent in relationships are affected by HC, and therefore, all women who at the time of the online survey were not in a relationship were excluded. This amounted to a total of 1,620 women excluded. Only women in heterosexual relationships were included in the sample, since the present study aims to replicate earlier studies, and those studies have used such samples. The number of women who at the time of the survey were in a non-heterosexual relationship were 407 and were excluded. Finally, all participants who did not answer every single instrument used in the present study were excluded. This amounted to 686 persons being excluded. Finally, responses from a total of 2828 participants were included for statistical analysis.

2.1 Ethical review

Before starting the process of collecting the data, the research plan was reviewed by The Ethics Review Board of Åbo Akademi University in Turku, Finland. Participants were informed that participation in the data collection was completely voluntary, and participation could be cancelled at any time without need for reasoning, if the participants so wished. The data collection did not involve any invasive procedures. Participants were required to provide written, informed consent before participating in the data collection in accordance with the Declaration of Helsinki.

2.2 Measures

All measures were back-translated into Finnish and Swedish. A panel of seven individuals with excellent command of English as well as Finnish and/or Swedish reviewed all the final translations.

2.2.1 Use of hormonal contraceptives

The use of hormonal contraceptives was measured by having the participants answer the question: “Do you use any kind of hormonal contraceptives at the moment?”. The participants had the options to answer 1. “I don’t use any hormonal contraceptives”, 2. “Combination Birth Control Pill”, 3. “The Mini Pill”, 4. “Intrauterine contraceptives (IUC)”, 5. “Vaginal Ring”, 6. “Injectable contraception”, 7. “Contraceptive Implant”, 8. “Some other form of hormonal contraception”.

These answers were then simplified into two categories: Hormonal contraceptive users and non-users.

2.2.2 Sexual function

To measure sexual function a number of different instruments from the GSA were chosen. This included the Female Sexual Function Index (FSFI) (Rosen et al. 2000). The FSFI consists of six categories with a total of 19 questions about the female sexual function. These questions were answered on a scale from 1 (very satisfied) to 5 (very dissatisfied). The internal consistency of the composite variables was good (Desire: Cronbach’s $\alpha = 0.822$, Arousal: Cronbach’s $\alpha = 0.906$, Lubrication: Cronbach’s $\alpha = 0.907$, Orgasm: Cronbach’s $\alpha = 0.926$, Satisfaction: Cronbach’s $\alpha = 0.835$ and Pain: Cronbach’s $\alpha = 0.812$). Also used was the Sexual Pleasure Scale (SPS) (Pascoal et

al. 2017), which includes three items about how pleasurable the participant finds sex on a scale from 1 (not pleasurable) to 7 (very pleasurable). This composite variable had a good internal consistency (Cronbach's $\alpha = 0.927$). Included were also four questions from the Dyadic Sexual Communication Scale (DSC) (Catania, 1998). This scale has as its goal to assess the participants' perception of the communication process in regard to their sexual relationships. The scale asks questions about the participants' communication about sex on a scale from 1 (strongly disagree) to 6 (strongly agree). The internal consistency of this composite variable was good (Cronbach's $\alpha = 0.772$). Finally, two questions about sexual satisfaction and orgasm were included with a scale from 1 (strongly agree) to 7 (strongly disagree). The internal consistency of this composite variable was fairly good (Cronbach's $\alpha = 0.600$).

2.2.3 Relationship satisfaction

For measuring relationship satisfaction, the first six questions from the Perceived Relationship Quality Component Scale (PRQC) (Fletcher et al. 2000) were used. This scale included questions such as "how satisfied are you with your relationship?" and "how much do you love your partner?". The participants could answer on a scale from 1 (not at all) to 7 (very much). The internal consistency of this composite variable was good (Cronbach's $\alpha = 0.882$).

2.2.4 Statistical analyses

All statistical analyses were performed using the IBM SPSS 26.0 software for Windows. Generalized Estimating Equations, a multilevel regression model, was used to examine the differences in sexual function and relationship satisfaction between HC users and non-users. The data used in the present study consisted of responses from of twins and siblings of twins, which made it necessary to use a model that controls for between-subjects dependence.

Table 1

Descriptive statistics for Age, Relationship Satisfaction and Sexual Function

Variable	<i>M</i>	<i>SD</i>	Range
Age	31.473	7.940	18-58
FSFI desire	3.196	0.801	1-5
FSFI arousal	1.931	0.810	1-5
FSFI lubrication	1.465	0.703	1-5
FSFI orgasm	2.260	1.234	1-5
FSFI sexual satisfaction	1.824	0.843	1-5
FSFI pain	1.445	0.652	1-5
SPS	5.862	1.177	1-7
DSC	4.066	1.191	1-6
Sexual satisfaction	2.536	1.356	1-7
PRQC	6.042	0.896	1.3-7

Note. FSFI = Female Sexual Function Index (higher scores indicate lower sexual function), SPS = Sexual Pleasure Scale (higher scores indicate higher levels of pleasure), DSC = Dyadic Sexual Communication Scale (higher scores indicate better communication about sex), PRQC = Perceived Relationship Quality Component Scale (higher scores indicate higher levels of relationship satisfaction). *M* = Mean, *SD* = Standard Deviation.

3 Results

3.1 Descriptive statistics

In the present study, 1414 women (50%) answered that they were not currently using any form of HC. Of the other 1414 (50%) of women who reported using HC, 567 (20%) reported using a combination birth control pill, 203 (7.2%) reported using the mini pill, 521 (18.4%) reported using intrauterine contraceptives, 53 (1.9%) reported using a vaginal ring, 58 (2.1%) reported using a contraceptive implant, and 12 (0.4%) reported using some other form of HC. In the present study, these statistics were simplified into 1414 (50%) women not using HC and 1414 (50%) women using some sort of HC.

One hundred and twenty-three individuals had missing data for some of the items of the FSFI measure (no individuals had more than 3/19 missing observations). Missing values were subsequently imputed using the Expectation Maximization procedure in SPSS 26.0, using intrascale information. Next, composite variables were formed in accordance with the six-factor solution reported by Witting et al. (2008) and many others (see e.g., Neijenhuis et al., 2019, for a comprehensive review).

3.2 Main effects of hormonal contraceptive use

As shown in Table 2, all variables except the ones for FSFI pain and FSFI orgasm supported the first hypothesis of no significant difference between HC users and non-users.

The analyses showed that most of the composite FSFI variables that represent different domains of female sexual function were not predicted by HC use status. Composite variables representing the FSFI domains desire (Wald $\chi^2[1] = 0.000, p = .989$), arousal (Wald $\chi^2[1] = 0.040, p = .841$), lubrication (Wald $\chi^2[1] = 0.686, p = .407$) and sexual satisfaction (Wald $\chi^2[1] = 0.049, p = .825$) showed no significant differences between individuals who used HC and those who did not. However, analyses involving the FSFI domains measuring pain (Wald $\chi^2[1] = 15.726, p < .001$) and orgasm function indicated a significant difference between HC users and non-users (Wald $\chi^2[1] = 4.282, p = .039$), so that HC users received higher values for both the pain and orgasm variables, which indicated a worse orgasm functioning and higher levels of pain in the context of sex.

No significant differences between HC users and non-users could be observed in sexual satisfaction measured by the SPS variable (Wald $\chi^2[1] = 0.292, p = .589$). Openness about sexuality in a relationship also showed no differences using the DSC variable (Wald $\chi^2[1] = 1.795, p = .180$). The variable for sexual satisfaction did not show any significant differences between HC users and non-users (Wald $\chi^2[1] = 0.002, p = .965$).

There were no significant differences in terms of reported relationship quality between individuals who used or did not use HC (Wald $\chi^2[1] = 0.027, p = .870$) measured by PRQC.

Age was used as a covariate in all statistical analyses.

Table 2

Associations between Hormonal Contraceptive Use, Relationship Satisfaction and Female Sexual Function.

Variable	Wald χ^2	<i>p</i>	<i>B</i>	<i>SE</i>
FSFI desire	0.000	.989	0.000	0.030
FSFI arousal	0.040	.841	-0.006	0.031
FSFI lubrication	0.686	.407	0.022	0.026
FSFI orgasm	4.282	.039	-0.095	0.046
FSFI sexual satisfaction	0.049	.825	0.007	0.033
FSFI pain	15.726	<.001	-0.094	0.024
SPS	0.292	.589	-0.024	0.045
DSC	1.795	.180	0.061	0.045
Sexual satisfaction	0.002	.965	-0.002	0.052
PRQC	0.027	.870	0.005	0.034

Note. FSFI = Female Sexual Function Index (higher scores indicate lower sexual function), SPS = Sexual Pleasure Scale (higher scores indicate higher levels of pleasure), DSC = Dyadic Sexual Communication Scale (higher scores indicate better communication about sex), PRQC = Perceived Relationship Quality Component Scale (higher scores indicate higher levels of relationship satisfaction). Wald χ^2 = Wald chi squared, *B* = unstandardized regression coefficient, *SE* = standard error of the *B*

4 Discussion

The present study set out to explore the possible differences in relationship satisfaction and sexual function between female HC users and non-users. The study used a large population-based sample of 2,828 women, thus contributing with important information and replicating previous studies, while using an excellent sample as well as validated measures.

The hypothesis for the present study was that there will not be a significant difference between HC users and non-users regarding relationship satisfaction and sexual function. This hypothesis was to an extent supported by the analyses for both relationship satisfaction and sexual function. There was no significant difference between the two groups of women regarding relationship satisfaction, but for sexual satisfaction the domains for orgasm and pain showed a significant difference in the two groups. HC users experienced worse sexual functioning related to orgasms as well as a higher level of pain in the context of sex. To take into consideration is that the analysis for the orgasm domain was only nominally significant, and if corrected for multiple tests would have been deemed insignificant. These findings support to a great degree the conclusions of the comprehensive literature review by Both et al. (2019), who also found that using HC made mostly no significant difference on sexual function and relationship satisfaction. However, they found that HC use was significantly correlated with a worse functioning related to lubrication. These results were not replicated in the present study. The results that showed a worse sexual functioning related to orgasms and pain have been replicated in previous studies such as Smith et al. (2014), where a decreased sexual function was observed with arousal, pleasure, orgasm, lubrication, and pain. Other studies such as Guida et al. (2005) and Gracia et al. (2010) have also found contradicting results, that using an intravaginal ring or a patch did not correlate with a lower level of sexual function compared to non-users, but to note is that these earlier studies were done with a much smaller sample size. The results that the present study found contradicted some earlier studies. This partly continues the trend of slightly mixed results from different studies. These findings can be interpreted to mean that there should be a low threshold to use different HC. Since the possible difference between HC users and non-users is quite low, there is no need to refrain from using HC out of worry for the possible change it could cause in these areas. Bellizzi et al., (2015) showed that a large portion of women abstain from using HC out of worry of possible side-effects; the present study therefore brings important light on this matter. To be noted is that there can be side-effects that have not been discussed in the present study to take into consideration when choosing contraception method, such as nausea or headaches for example.

4.1 Strengths and limitations

A large population-based sample was used for the present study, which makes the results much more generalizable on the population than if a comfort sample would have been used, as many earlier studies have done. The measures used in the present study were also validated from before by others and had good reliability and internal consistencies. Some limitations with the present study are that the measures used all rely on self-reports, which can lead to biased answers. Another possible limitation regarding the study of sexual function was that only women in relationships were included, since relationship satisfaction was one of the research subjects, but this excluded the large number of women who use HC without being in a monogamous relationship.

4.2 Conclusions

The present study set out to research possible differences between hormonal contraceptive users and non-users regarding relationship satisfaction and sexual function in women. To research this, a large population-based sample of Finnish women was used with measures that were validated with good internal consistency. The analyses that were conducted found no significant difference between hormonal contraceptive users and non-users regarding their relationship satisfaction but found a significant difference in some domains of sexual function. These findings were mostly similar to those of earlier research done on this topic. A clear limitation with the present study was that all measures used were based on the participants' self-reporting.

5 Summary in Swedish – Svensk sammanfattning

Tillfredställelse med parrelation samt sexuell funktion bland kvinnor som använder hormonella preventivmedel

Inledning

Olika typer av preventivmedel har använts i årtusenden. Den vanligaste formen av preventivmedel idag är någon form av hormonellt preventivmedel (HP). Det har uppskattats att runt om i världen använder 43 % av kvinnorna i åldern 15–49 någon form av HP (Förenta Nationerna, 2019). Trots att en stor andel av kvinnor använder HP, är 34%–54% av graviditeterna i Öst- och Västeuropa, länder med god sexualundervisning, oplanerade (ESHRE Capri Workshop Group, 2018). På liknande sätt i USA, är cirka 3 miljoner årliga graviditeter oavsiktliga, vilket närmar sig hälften av alla graviditeter i USA (Guttmacher Institute, 2014). De vanligaste anledningarna till att inte använda preventivmedel är rädsla över biverkningar och möjliga hälsokomplikationer till följd av HP-användningen (Bellizzi et al., 2015). Därför är det viktigt att studera eventuella effekter som användningen av HP kan medföra, så att de som överväger att använda HP kan fatta ett välgrundat beslut om att endera använda eller inte använda denna typ av preventivmedel.

Tidigare forskning har hittat varierande resultat, men för det mesta föreslagit att användningen av hormonella preventivmedel inte signifikant påverkar tillfredsställelse i parrelationer eller sexuell funktion (Both et al., 2019). Vissa studier tyder till och med på att användningen av hormonella preventivmedel har en positiv inverkan på dessa (Taggart et al., 2018).

Hypotesen för denna studie är att HP-användare och icke-användare inte kommer att uppvisa någon signifikant skillnad i tillfredsställelse i parrelation och sexuell funktion. Denna hypotes är baserad på tidigare studier som drar slutsatsen att små eller inga skillnader kunde observeras mellan HP-användare och icke-användare i dessa kategorier.

Metod

Ett stort befolkningsbaserat urval, som bestod av 2828 finska kvinnor, användes för studien. Sexuell funktion mättes med hjälp av frågeformulär som baserade sig på självrapportering. Denna samling av frågeformulär bestod av Female Sexual Function Index (FSFI) (Rosen et al. 2000), Sexual

Pleasure Scale (SPS) (Pascoal et al. 2017), Dyadic Sexual Communication Scale (DSC) (Catania, 1998) och ett frågeformulär med två frågor om sexuell tillfredsställelse. För att mäta tillfredsställelse i parrelation användes Perceived Relationship Quality Component Scale (PRQC) (Fletcher et al. 2000).

Alla statistiska analyser utfördes med programvaran IBM SPSS 26.0 för Windows. GEE-test (generalized estimating equations regression models) användes för att undersöka skillnaderna i sexuell funktion och relationstillfredsställelse mellan HP-användare och icke-användare. De data som användes i den aktuella studien bestod av svar från tvillingar och tvillingars syskon, vilket gjorde det nödvändigt att använda en modell som kontrollerar för beroende mellan individer.

Resultat

I den aktuella studien rapporterade 1414 kvinnor (50 %) att de för närvarande inte använder någon form av HP. De övriga 1414 (50 %) kvinnorna rapporterade alla att de använde någon form av HP. I listan över HP som användes ingick kombinerat p-piller, minipiller, spiral, vaginalring, preventivmedelsimplantat och någon annan odefinierad form av HP.

Resultaten från analyserna bekräftade till största del hypotesen för studien. Resultaten talade för att det inte kunde observeras någon skillnad mellan HP-användare och icke-användare gällande tillfredsställelse i parrelation och vissa områden av sexuell funktion. För sexuell funktion kunde en signifikant skillnad observeras för domänerna smärta och orgasm som mättes med FSFI-frågeformuläret. HP-användare hade signifikant högre värden på dessa domäner, vilket indikerade en sämre sexuell funktion för orgasm och en högre nivå av upplevelse av smärta i samband med sex.

Diskussion

Hypotesen för denna studie var att det inte kommer att finnas någon signifikant skillnad mellan HP-användare och icke-användare när det gäller tillfredsställelse i parrelation och sexuell funktion. Denna hypotes fick till viss del stöd av analyserna av både tillfredsställelse i parrelation och sexuell funktion. Det fanns ingen signifikant skillnad mellan de två grupperna av kvinnor när det gäller

tillfredsställelse i parrelation, men för sexuell funktion visade domänerna för orgasm och smärta en signifikant skillnad i de två grupperna. HP-användare upplevde sämre sexuell funktion relaterad till orgasmer och en högre nivå av smärta i samband med sex. Dessa resultat stöder slutsatserna av Both et al. (2019), som också fann att användningen av HP inte påverkade tillfredsställelse i parrelation eller sexuell funktion på ett signifikant sätt. Dessa resultat kan tolkas som att det bör finnas en låg tröskel för att använda olika former av HP. Då den möjliga skillnaden mellan HP-användare och icke-användare är obetydlig, finns det få anledningar till att avstå från att använda HP på grund av oro för en möjlig negativ inverkan på de områden som denna studie behandlat. Bellizzi et al. (2015) visade att många kvinnor avstår från att använda HP på grund av oro för eventuella biverkningar. Den här studien bidrar därför med viktig tilläggsinformation till den redan existerande forskningen.

Ett stort populationsbaserat urval användes för denna studie, vilket gör resultaten mer generaliserbara på befolkningen, än om ett bekvämlighetsurval skulle ha använts. Några begränsningar med denna studie är att alla måtten som användes baserar sig på självrapportering, vilket kan leda till partiska svar. En annan möjlig begränsning vad gäller forskning av sexuell funktion var att endast kvinnor i aktiva parförhållanden inkluderades. Detta uteslöt det stora antalet kvinnor som använder HP men inte var i ett parförhållande vid tidpunkten för datainsamlingen. Även om denna studie är ett bra tillägg till den existerande forskningen, är det fortfarande viktigt att mera forskning om ämnet bedrivs.

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