

PERCEIVED CHANGES DUE TO COVID-19 PANDEMIC IN SEXUAL ACTIVITY, SEXUAL SATISFACTION, AND LIFE SATISFACTION AMONG INDONESIAN ADULTS

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ABSTRACT

The research sought to find out more about the perceived changes and relationships between sexual activities, sexual satisfaction, and life satisfaction of sexually active Indonesian adults before the pandemic (February 2019 - February 2020) and during the pandemic (March 2020 - June 2020). The research applied a cross-sectional method. An online questionnaire was conducted once in June 2020 to collect the data from 1.006 samples aged 18 to 64. Analysis using paired sample t-test shows a significant decrease due to the COVID-19 pandemic in various sexual activities, including cuddling, non-penetrative sex, masturbation sex, oral sex, and penetrative sex, but not in sexting. The results also show a significant decrease in sexual and life satisfaction due to the COVID-19 pandemic. Regardless of the COVID-19 pandemic, sexual satisfaction, and life satisfaction are positively and significantly correlated in sexually active Indonesian adults. The results of the research indicate that sexual life is still an important aspect, especially when dealing with stressful life events such as the COVID-19 pandemic.

Keywords: sexual activity, sexual satisfaction, life satisfaction, COVID-19, Indonesian adults

INTRODUCTION

The spread of COVID-19 was declared a pandemic by the World Health Organization (WHO) on March 11, 2020. This situation leads WHO to recommend preventing the spread of COVID-19 through large-scale social distancing. This regulation is also enforced in Indonesia to prevent the spread of the virus by the Ministry of Health, establishing large-scale social restrictions (*Pembatasan Sosial Berskala Besar* or PSBB) regulations. These restrictions include dismissing schools and workplaces, restrictions on public religious activities or activities in public places and facilities, restrictions on transportation modes, and other activities related to security aspects. The implementation of PSBB regulations to reduce the spread of COVID-19 has certainly changed various aspects of human life. It impacts the economic,

socio-cultural, education, and public health sectors, including mental health.

Research with 1210 respondents in 194 cities in China has shown that 53,8% of respondents rate the COVID-19 pandemic as having a moderate or severe impact on psychological conditions, 16,5% has reported moderate to severe depression symptoms, 28,8% has reported moderate to severe anxiety symptoms, and 8,1% has reported moderate to severe stress levels (Wang et al., 2020). As many as 84,7% of respondents spend 20-24 hours per day at home, of which 75,2% are worried that their family members will get infected. In addition, the COVID-19 pandemic has many uncertainties, such as a source of stress in various domains of life, raises ongoing concerns about the health of oneself and others, as well as creating limited access to a variety of protective factors that can reduce stress (Bridgland et al., 2021; Panzeri et al.,

2020; Salari et al., 2020; Zhang et al., 2020). Thus, the COVID-19 pandemic can be considered a significant stressor that can disrupt mental health (Gruber et al., 2020). Moreover, recent research with 27 countries has reported that participants report higher psychological distress after COVID-19 restrictions, which is associated with lower relationship quality, especially among Indonesian couples (Randall et al., 2021). Indeed, changes due to COVID-19 and how people cope certainly impact life satisfaction, at least in 26 countries that participate in the survey from The Institute of Global Health Innovation (IGHI) and YouGov, one of which is Indonesia (Alford, 2020).

Life satisfaction is defined as a cognitive evaluation of the entire life or from several specific domains of individual life (Myers & Diener, 1995), which is an important component of subjective well-being. A higher life satisfaction means a happier feeling and an ability to enjoy life, which has a positive impact on health and well-being. Several studies have found that life satisfaction correlates strongly with protective factors from chronic disease, sleep problems, pain, obesity, smoking, anxiety, and physical constraints (Karyani et al., 2019; Kocatepe, 2020). Life satisfaction is associated with a reduced risk of death (Rosella et al., 2019). In addition, life satisfaction is reported to be a buffer against the negative impact of stress on psychopathological development (Zhu & Shek, 2021); thus, increasing protective factors for life satisfaction is important. One of the protective factors in the adult population regarding life satisfaction is sexual satisfaction or the quality of sexual life (Schmiedeberg et al., 2017; Stephenson & Meston, 2015).

Research by Dogan, Tugut, and Golbasi (2013) on married women has shown that the quality of sexual life significantly predicts happiness and life satisfaction, with 19% of the sexual satisfaction variance contributes to happiness and 25% of sexual satisfaction variance contributes to life satisfaction. Quality of sexual life is also associated with life satisfaction over time, whereas unsatisfactory sexual activity is significantly associated with reduced life satisfaction (Stephenson & Meston, 2015). The same thing is also found in Skalačka and Gerymski's (2019) research with the elderly population, where the level of sexual activity has a positive and significant relationship with sexual satisfaction and life satisfaction. Overall, the relationship between sexual satisfaction and life satisfaction results in a positive and significant correlation in elderly (Buczak-Stec, König, & Hajek, 2019; Træen et al., 2019), in patients with cardiovascular disease (Borji, Molavi, & Rahimi, 2016), cancer patients (Słowik et al., 2017), and women with chronic mental disorders (Davison & Huntington, 2010). This indicates that sexuality is an important factor in an individual's life, even in the context of severe health problems.

Lehmiller et al. (2021) have found that significant changes due to the COVID-19 pandemic affect the mental health conditions of individuals and affect sexual life. These changes in sexual life

cannot be avoided because of COVID-19 prevention measures (i.e., maintaining distance, self-isolation, and quarantine). Other factors such as increased levels of stress, anxiety, and depression also play key roles in this. Changes due to the COVID-19 pandemic can lead to unmet sexual needs, which can affect individual sexual satisfaction and life satisfaction.

These changes affect married people and people who are sexually active but not in a marital relationship. The state of the COVID-19 pandemic makes sexual needs in individuals who are not married or do not live with a partner difficult to fulfill due to restrictions imposed to reduce the risk of spreading the COVID-19 virus. This could affect the number of sexual activities before and during the COVID-19 pandemic. Research by Li et al. (2020) in China has shown that 44% of participants report a decrease in sexual partners, and about 37% of participants report a decreased frequency in sexual activity. The same thing is felt by Indonesian adults. As reported by Saputra (2020), changes in sexual activity since the COVID-19 pandemic have prompted some unmarried individuals to try to compensate for their sexual needs, such as by accessing pornographic sites or by trying to find a partner through dating apps. Even so, some of them have reported that accessing pornographic sites to get pleasure from sexual activity is no longer as satisfying as it was before. This indicates that changes in sexual life may occur in sexually active adults, regardless of the relationship status they have.

Therefore, the research seeks to discover more about changes in sexual activities, sexual satisfaction, and life satisfaction in sexually active Indonesian adults due to the COVID-19 pandemic. The research also explores whether there is a relationship between sexual activities, sexual satisfaction, and life satisfaction in individuals who are sexually active during the period before (February 2019 - February 2020) and during the COVID-19 pandemic (March 2020 - June 2020). Researchers hypothesize that there are significant differences in sexual activities, sexual satisfaction, and life satisfaction. There is a decrease in how often people do any sexual activities, sexual satisfaction, and life satisfaction. In addition, there is a positive and significant relationship between sexual activities, sexual satisfaction, and life satisfaction before and during the COVID-19 pandemic in Indonesia.

METHODS

The cross-sectional research is evaluated by the Ethics Committee of the University of Indonesia (No.798/ FPsi.Komite Etik / PDP.04.00 / 2020). Participants are recruited using an online questionnaire with a convenience sampling method. Participants are asked to read the informed consent form and declare that they agree to participate before completing the survey. It takes approximately 10-20 minutes to complete the questionnaire. Data collection was carried out from June 8th – 30th, 2020, and obtained

1.642 responses. Then, researchers perform data processing by eliminating unusable data. Researchers eliminate three responses under 18 years of age, four responses state that they are not willing to participate, 16 responses of duplicate data, 527 responses state that they are not sexually active in both periods, and 86 responses that answer on sexual satisfaction as 'not relevant'. Thus, there are 1.006 participants whose data are analyzed.

The participants involved are between 18 - 64 years old ($M = 30,79$, $SD = 9,026$) with more female than men, namely 772 women (76,7%) and 234 men (23,3%). The majority are Moslem (84,8%), Christian (7,2%), and Catholic (5,6%). Most of the respondents have completed undergraduate education (64,1%) and work as private employees (27%) or state civil servants (18,8%). The majority are Javanese (62%). A total of 249 participants (24,8%) live in Jakarta, followed by West Java with 208 participants (20,7%), and Central Java with 189 participants (18,8%). Before the COVID-19 pandemic, 673 individuals (66,9%) were married, followed by 236 individuals (23,5%) who were dating. During the COVID-19 pandemic, the number of married respondents became 680 participants (67,6%), while dating became 231 participants (23%).

A total of 545 participants (54,2%) has reported never having been diagnosed positive for COVID-19 and have no relatives who are diagnosed as positive, while 319 (31,7%) have stated that they have not been tested or did not know whether they are positive or not. The majority (867 individuals or 86,2%) in this research had never experienced any symptoms of COVID-19 during the data collection time in June 2020. Furthermore, 424 people (42,1%) have expressed concern about the impact of COVID-19 on their financial condition, 439 (43,6%) are concerned about their physical health, and 465 (46,2%) are concerned about the physical health of those around them. Of the participants, 44 (4,4%) are health workers in charge of handling COVID-19.

Participants are asked to report their perceived sexual activity, sexual satisfaction, and life satisfaction before the COVID-19 pandemic (February 2019-February 2020) and during the COVID-19 pandemic (March 2020 - June 2020) retrospectively. Sexual activities are measured with questions about the sexual activities, namely cuddling, sexual activities other than genital penetration (e.g., kissing, massage), masturbation, oral sex, sexting (chat, telephone, video), and penetrative sex. Response categories use a Likert scale of 1 (Never) to 5 (Very often). The higher the score, the more often one is perceived to engage in certain sexual activity.

Then, participants are asked to respond to the question, "How satisfied are your sex life?" using a Likert scale of 1 (Very unsatisfactory) to 4 (Very satisfying) on both periods to measure their sexual satisfaction. A higher score means they perceive more satisfied with their sexual life.

Lastly, life satisfaction is measured using

The Satisfaction with Life Scale (SWLS) (Diener, Emmons, & Larsen, 1985). SWLS contains five items with a Likert scale of 1 - 5, where 1 indicates 'strongly disagree' and 5 indicates 'strongly agree'. The Indonesian translation version of SWLS items has been tested and has 0,87 reliability and internal consistency of more than 0,2. A higher score means one has perceived they have higher life satisfaction.

The research applies a descriptive statistical analysis, paired sample t-test, and Pearson's correlations. Descriptive analysis is used to simplify the data to know the respondents' general descriptions. Paired sample t-test is used to show changes in variables scores before and during the COVID-19 pandemic. Finally, Pearson's correlations are used to examine the correlation between variables before and during the pandemic. The role of gender and relationship status are also included in the analysis. All analyses are conducted with a one-tailed hypothesis.

RESULTS AND DISCUSSIONS

Paired sample t-test is conducted to see the significance of perceived changes in all variables before and during the COVID-19 pandemic. It can be seen in Table 1 (see Appendix). There is a significant decrease on cuddling [$t(1005) = 14,52$, $p < 0,001$], non-penetrative sex [$t(1005) = 13,81$, $p < 0,001$], masturbation [$t(1005) = 2,35$, $p < 0,05$], oral sex [$t(1005) = 11,47$, $p < 0,001$], and penetrative sex [$t(1005) = 9,16$, $p < 0,001$]. However, there is no significant difference for sexting. In general, there is a decrease in sexual satisfaction during the COVID-19 pandemic, $t(1005) = 12,19$, $p < 0,001$. There is also a significant decrease in life satisfaction, $t(1005) = 22,63$, $p < 0,001$.

The researchers analyze more in male and female participants to see if gender plays a role. There is a decrease in mean scores on sexual activities, sexual satisfaction, and life satisfaction in the 234 male and 772 female participants involved. Table 2 shows perceived changes in male (see Appendix).

In male participants, there are a significant decrease on cuddling [$t(233) = 0,613$, $p < 0,001$], non-penetrative sex [$t(233) = 0,608$, $p < 0,001$], masturbation [$t(233) = 0,835$, $p < 0,001$], oral sex [$t(233) = 0,736$, $p < 0,001$], sexting [$t(233) = 0,703$, $p < 0,001$], and penetrative sex [$t(233) = 0,746$, $p < 0,001$]. Sexual satisfaction [$t(233) = 0,612$, $p < 0,001$] and life satisfaction [$t(233) = 0,459$, $p < 0,001$] due to COVID-19 pandemic is also decreased. For female (Table 3), there is also a significant decrease on cuddling [$t(771) = 0,325$, $p < 0,001$], non-penetrative sex [$t(771) = 0,382$, $p < 0,001$], masturbation [$t(771) = 0,816$, $p < 0,001$], oral sex [$t(771) = 0,595$, $p < 0,001$], sexting [$t(771) = 0,711$, $p < 0,001$], and penetrative sex [$t(771) = 0,668$, $p < 0,001$]. Sexual satisfaction [$t(771) = 0,327$, $p < 0,001$] and life satisfaction [$t(771) = 0,458$, $p < 0,001$] is decreased due to COVID-19 pandemic.

Paired sample t-test is also used to see perceived changes in all variables before and during the COVID-19 pandemic by involving relationship status. There are six types of status in the research, including single, dating, having a relationship without status, engaged, married, and married but having another relationship outside of marriage. In this analysis, relationship status other than married is categorized as unmarried. In the analysis, the researchers have decided not to involve married individuals who have other relationships outside of marriage before (4 people) and during the pandemic (5 people). In addition, eight people changed their relationship status from unmarried to married during the pandemic. Results have shown differences in changes due to the COVID-19 pandemic between the unmarried and married participants. It can be seen in Table 4 (see Appendix).

There is a significant decrease on sexual activities and life satisfaction due to the COVID-19 pandemic in 321 unmarried group. Specifically, there is a significant decrease for cuddling [$t(320) = 0,208, p < 0,001$], non-penetrative sex [$t(320) = 0,233, p < 0,001$], oral sex [$t(320) = 0,359, p < 0,001$], and penetrative sex [$t(320) = 0,433, p < 0,001$] in unmarried individuals. In contrast, there is a significant increase for masturbation [$t(320) = 0,709, p < 0,001$] and sexting [$t(320) = 0,593, p < 0,001$] among unmarried participants. Life satisfaction is also decreased due to COVID-19 pandemic [$t(320) = 0,327, p < 0,001$]. However, there is no significant difference in sexual satisfaction among unmarried participants.

In contrasts, there is a significant difference on all variables due to pandemic in 670 people with married relationship status. Specifically, there is a significant decrease on all sexual activities [cuddling $t(669) = 0,589, p < 0,001$; non-penetrative sex $t(669) = 0,578, p < 0,001$; masturbation $t(669) = 0,851, p < 0,001$; oral sex $t(669) = 0,827, p < 0,001$; sexting $t(669) = 0,792, p < 0,001$; and penetrative sex $t(669) = 0,762, p < 0,001$], sexual satisfaction $t(669) = 0,575, p < 0,001$, and life satisfaction $t(669) = 0,506, p < 0,001$ for married individuals. However, there is no significant difference on sexual activities, sexual satisfaction, and life satisfaction in eight people who have a change in relationship status from unmarried to married during the COVID-19 pandemic. It can be seen in Table 5 (see Appendix).

Next, Pearson's Correlations is used to explore the relationship between sexual activities (cuddling, non-penetrative, masturbation, oral sex, sexting, penetrative sex), sexual satisfaction, and life satisfaction before and during pandemic COVID-19. It can be seen in Table 6 (see Appendix).

Cuddling, non-penetrative, oral sex, sexting, and penetrative sex are positively correlated with sexual satisfaction before the COVID-19 pandemic. There is also a positive and significant relationship between cuddling, non-penetrative, and penetrative sex to life satisfaction, whereas oral sex and sexting are not found to be significantly correlated with life satisfaction

before the COVID-19 pandemic. In this period, there is also a positive and significant relationship between sexual satisfaction and life satisfaction. However, masturbation is negatively correlated with sexual satisfaction and life satisfaction.

During the COVID-19 pandemic, cuddling, non-penetrative, oral sex, and penetrative sex are also found to be positively correlated with sexual satisfaction and life satisfaction. Similar to before the pandemic, sexual satisfaction and life satisfaction are also positively correlated during the COVID-19 period. In contrast to before the pandemic period, oral sex turns out to be significantly correlated with life satisfaction during the COVID-19 pandemic. Similar to before the pandemic, masturbation is also found to be negatively correlated with sexual satisfaction and life satisfaction during the COVID-19 pandemic. Different from before the COVID-19 period, sexting turns out to be negatively correlated with sexual and life satisfaction during the COVID-19 pandemic.

Pearson's Correlations are also used to explore the correlations between all variables with each gender. The results are disaggregated between males and females. Table 7 shows Pearson's correlation results on male (see Appendix).

In male participants before the COVID-19 pandemic, cuddling, non-penetrative sex, oral sex, and penetrative sex are positively correlated with sexual satisfaction. Meanwhile, only cuddling, non-penetrative, and penetrative sex have a positive correlation with life satisfaction. Masturbation is found to have a negative correlation with sexual satisfaction and life satisfaction. Oral sex does not have any significant relationship with life satisfaction, whereas sexting is not significantly correlated with both sexual satisfaction and life satisfaction in male participants.

During the COVID-19 pandemic, all sexual activities are positively correlated to sexual satisfaction in males, except for masturbation and sexting, which have an inverse correlation with sexual satisfaction. Masturbation also has a negative relationship with life satisfaction. Only cuddling, non-penetrative, and penetrative sex are positively correlated with life satisfaction in men during the pandemic, while there are no significant correlations between oral sex and sexting with life satisfaction. In male participants in both periods, sexual satisfaction and life satisfaction are positively correlated.

In female participants before the COVID-19 pandemic, all sexual activities are positively correlated to sexual satisfaction, except for masturbation, which has no significant correlation. Concurrently, just like men, only cuddling, non-penetrative, and penetrative sex are positively correlated with life satisfaction for women before the pandemic. Masturbation is negatively correlated to life satisfaction in females. In addition, oral sex and sexting are not significantly correlated with life satisfaction. During the COVID-19 pandemic, all sexual activities are positively correlated with sexual and life satisfaction, except for

masturbation and sexting, which negatively correlate with sexual and life satisfaction. Despite COVID-19, sexual satisfaction and life satisfaction were positively and significantly correlated in female participants. It can be seen in Table 8 (see Appendix).

The results of the research are in line with previous studies conducted by Lehmiller et al. (2021) and Hensel et al. (2020) with participants from several countries, and Li et al. (2020) conducted in China. They find a decreased sexual frequency in participants due to the COVID-19 pandemic. In the research, a similar condition is also experienced in sexually active Indonesian adults. What is interesting is that in unmarried participants, there are no significant perceived changes in sexual satisfaction due to the COVID-19 pandemic, although there is an increase in the average of masturbation and sexting in this group. Conversely, there is a significant decrease in all sexual activities, sexual satisfaction, and life satisfaction in married participants. The perceived changes in sexual life cannot be avoided as an implication of responding to COVID-19 prevention measures, namely maintaining distance, self-isolation, and quarantine. In addition, various other factors can also affect sexual life in the pandemic, such as more in interpersonal conflicts, stress, reduced privacy, and untreated medical problems (Arafat et al., 2020).

Due to social distancing protocol, the decrease in any sexual activities can be explained by the difficulty of meeting a partner in individuals who do not live together or are not married. Alternatively, sexual activities may also decrease due to increased anxiety and stress in married couples, impacting the overall changes in various aspects of life caused by the COVID-19 pandemic. The difficulty of meeting in person with a partner makes long-distance sexual activity such as sexting increase, as found by Lehmiller et al. (2021). In the research, sexting is found to be significantly increased only in females and in participants who are not in the context of marriage. The absence of significant changes in sexting in this research may be due to having more married participants than the unmarried.

The research has also found a significant decrease in sexual and life satisfaction for adults in Indonesia due to the COVID-19 pandemic, regardless of gender or relationship status. This result is in accordance with the research of Lehmiller et al. (2021), Hensel et al. (2020), and Li et al. (2020), in which the decrease in sexual desire and dissatisfaction in romantic relationships are seen as significant factors affecting sexual activity, which in turn are also associated with a decrease in sexual satisfaction. The research has also decreased life satisfaction due to the COVID-19 pandemic. This is in line with the research by Ammar et al. (2020), who have found a 16% decrease in life satisfaction in 1047 participants due to the COVID-19 pandemic. Research in China has also found that the increased distress and the efforts to suppress the spread of the virus infections decrease life satisfaction (Zhang et al., 2020). This

can be contributed to negative impacts (i.e., stress, anxiety, and depression) due to the pandemic being a significant stressor (Alford, 2020; Gruber et al., 2020).

The relationship between sexual activities, sexual satisfaction, and life satisfaction in the research shows mixed results. Cuddling, non-penetrative sex, and penetrative sex are correlated positively with sexual satisfaction and life satisfaction before and during the COVID-19 pandemic. The result is supported by previous studies, where the increase in frequency and sexual satisfaction over time is thought to increase life satisfaction (Schmiedeberg et al., 2017). However, it does not necessarily mean to be associated with higher life satisfaction. Muise, Schimmack, and Impett (2016) have explained that the positive relationship between sexual activity and life satisfaction only occurs for partners with the same sexual desire and expectations. One of the reasons is that frequent sexual intercourse is associated with increased relationship satisfaction, which affects life satisfaction (Schmiedeberg et al., 2017). In the research, the measurement of the frequency of sexual activity is not by specifically asking at a certain time (e.g., once a week) but using the sentence 'how often', which might be perceived differently. In addition, the research does not measure the relationship satisfaction of the participants nor use an experimental design, so the causal relationship between variables cannot be explained clearly.

Before and during the COVID-19 pandemic, masturbation was negatively associated with sexual satisfaction and life satisfaction. Although not in accordance with the researchers' hypothesis, the results are in line with a Swedish population study which finds a negative relationship between masturbation and sexual satisfaction, life satisfaction, relationship satisfaction, and satisfaction with mental health (Brody & Costa, 2009; Miller et al., 2019; Perry, 2020). Its stigma might explain the negative relationship between masturbation and sexual satisfaction as an embarrassment (Regnerus, Price, & Gordon, 2017), or that frequent masturbation might suppress some sexual desire for a partner, which in turn lead to sexual or relationship dissatisfaction (Miller et al., 2019; Wright et al., 2021). Masturbation also has a negative relationship with life satisfaction in both periods. In relation with the stigma, other studies have found that masturbation is associated with depression and religious struggles (Miller, 2020) adversely affect psychological health and reproductive well-being (Jiao, Chen, & Niu, 2019), all of which correlated with low life satisfaction (Velten & Margraf, 2017).

Oral sex has a positive relationship with sexual satisfaction in both men and women, regardless of the presence or absence of the COVID-19 pandemic. Similar to previous studies, viewing it as common sexual activity positively correlates with sexual satisfaction and relationship satisfaction (Jawed-Wessel, Santo, & Irwin, 2019; Wood et al., 2016). A further explanation might be that oral sex is carried out as a form of foreplay (Saini, Saini, & Sharma,

2010), leading to higher sexual satisfaction (Frederick et al., 2017). While oral sex correlates with sexual satisfaction, it is not necessarily related to life satisfaction.

For males, oral sex is not associated with life satisfaction regardless of the presence or absence of the pandemic. Meanwhile, in women, it is not significantly correlated with life satisfaction before the pandemic but positively correlated with perceived life satisfaction during the pandemic. The absence of a significant relationship between oral sex and life satisfaction before pandemic may be because oral sex is not only considered less intimate than penetrative sex but is also considered less meaningful for some (Lefkowitz, Vasilenko, & Leavitt, 2016). Furthermore, considering that 76,7% of the participants in the research are women, this may contribute to a positive relationship between oral sex and life satisfaction during the COVID-19 pandemic. Limited variety for channeling sexual needs during the pandemic makes oral sex more likely to contribute to a significantly positive relationship to life satisfaction. However, it does not rule out that the absence of a correlation between oral sex and life satisfaction before the COVID-19 pandemic could be due to other variables that are not studied in the research.

Sexting and sexual satisfaction before the COVID-19 pandemic have a positive relationship, supported by Oriza and Hanipraja's (2020) research. However, this only happens to women. There is no significant correlation between sexting and sexual satisfaction before the pandemic in males, but this association changes to negative during the pandemic. Gender roles that may influence the direction of sexting and sexual satisfaction need to be explored in future research. This is because some researches find that sexting has a positive impact on sexual life, seen as a complement to real-life physical, sexual activities, considered a form of foreplay, as a way to increase intimacy (Amundsen, 2020; Hudson & Marshall, 2018; Van Ouytsel et al., 2020), yet new research finds that sexting is not always increasing relationship satisfaction or relationship quality (Matotek et al., 2021).

The regulation to maintain social distance causes reduced social interaction, a risk factor for mental health problems, such as loneliness (Domènech-Abella et al., 2017; Fakoya, McCorry, & Donnelly, 2020). This makes some people try to compensate for their loneliness and sexual needs by using sexting to cope (Lehmiller et al., 2021). On the contrary, Klettke et al. (2019) have explained that there is a possibility that sexting is still carried out even though the individual does not want to do it because of coercion from the partner, which causes psychological distress. When this occurs, the feeling of having to engage in sexting is significantly correlated with anxiety and stress, which is associated with lower life satisfaction. Although the research is not clear whether individuals had sexting with or without coercion, this may explain the absence of a significant correlation between sexting and life

satisfaction before the pandemic in men and women. It is also possible that sexting and life satisfaction are mediated or moderated by other factors not analyzed in this research. Therefore, further research can examine other factors that can influence the correlation between sexting, sexual satisfaction, and life satisfaction, such as attachment orientation, relationship satisfaction, and type or context of relationships (Drouin, Coupe, & Temple, 2017).

CONCLUSIONS

The COVID-19 pandemic has significantly changed Indonesian adults' sexual life and satisfaction. Based on the research, there is a perceived decrease in cuddling, non-penetrative sex, masturbation, oral sex, penetrative sex, sexual satisfaction, and life satisfaction. However, there is no significant difference in sexting despite a decrease in the mean score during the COVID-19 pandemic. Before the COVID-19 pandemic, all sexual activities had a positive correlation with sexual satisfaction, except for masturbation. Positive correlations were also found between all sexual activities and life satisfaction, except for oral sex and sexting that were not correlated with life satisfaction before the COVID-19 pandemic.

During the COVID-19 pandemic, cuddling, non-penetrative, oral sex, and penetrative sex have positive correlations with sexual satisfaction and life satisfaction, while masturbation and sexting inversely correlate with life satisfaction. In both periods, sexual satisfaction and life satisfaction are always positively correlated, which means that both variables always have a positive and significant relationship despite the COVID-19 pandemic.

Although the research can explain the perceived changes and the relationships between sexual activities, sexual satisfaction, and life satisfaction due to the COVID-19 pandemic, there are several limitations. The research cannot explain the causality between the variables studied, in which life satisfaction may predict sexual activities and sexual satisfaction, or vice versa. Explanation of causality between variables can only be done by experimental or longitudinal design. Future research using regression analysis or making a model can be conducted to understand the causality and identify potentially strong predictors in sexual and life satisfaction.

Further, retrospective survey questions in the research have disadvantages, like relying on participants' memory, so it is prone to recall bias (Hipp et al., 2020). Respondents tend to give less accurate answers when asked about their past than the present. High cognitive demands make it difficult to remember certain details, especially if the topic is perceived as irrelevant to them. To minimize bias, the researchers try to reduce the cognitive effort associated with the retrospective questions, like asking broader questions, offering broader answering categories, and using specific anchor points that are found to be helpful

to increase recall accuracy. Even so, future studies should assess ways to reduce bias by using other data collection methods. Albeit, the research can provide insight that sexual life is indeed related to life satisfaction. The research implicates the need for more research in exploring perceived changes in sexual life due to the COVID-19 pandemic and how other variables contribute to these changes.

Having said that, several suggestions in adding relevant variables in different populations should be considered for more plentiful insights (e.g., relationship satisfaction, marital satisfaction, communication quality, attachment orientation, relationship status). As the research only covers individual self-reports, dyadic measurements in sexual satisfaction also can be carried out, particularly one that takes the sexual satisfaction of the partner into account. For more practical implications, future research can design an intervention program that aims to improve the quality of sexual life of sexually active adults to cope with the impact of the COVID-19 pandemic. Overall, the results of the research demonstrate that sexual life is an important and helpful aspect, especially when facing stressful life events such as the COVID-19 pandemic among adults.

REFERENCES

- Alford, J. (2020, July 31). *New report highlights the impact of COVID-19 on life satisfaction worldwide*. Retrieved from <https://www.imperial.ac.uk/news/201034/new-report-highlights-impact-covid-19-life/>.
- Ammar, A., Chtourou, H., Boukhris, O., Trabelsi, K., Masmoudi, L., Brach, M., Bouaziz, B., Bentlage, E., How, D., Ahmed, M., Mueller, P., Mueller, N., Hsouna, H., Aloui, A., Hammouda, O., Paineiras-Domingos, L. L., Braakman-Jansen, A., Wrede, C., Bastoni, S., ... Hoekelmann, A. (2020). Covid-19 home confinement negatively impacts social participation and life satisfaction: A worldwide multicenter study. *International Journal of Environmental Research and Public Health*, *17*(17), 1-17. <https://doi.org/10.3390/ijerph17176237>.
- Amundsen, R. (2020). Hetero-sexting as mediated intimacy work: Putting something on the line. *New Media and Society*, *24*(1), 1-16. <https://doi.org/10.1177%2F1461444820962452>.
- Arafat, S. M. Y., Alradie-Mohamed, A., Kar, S. K., Sharma, P., & Kabir, R. (2020). Does COVID-19 pandemic affect sexual behavior? A cross-sectional, cross-national online survey. *Psychiatry Research*, *289*, 113050. <https://doi.org/10.1016/j.psychres.2020.113050>.
- Borji, M., Molavi, S., & Rahimi, Z. (2016). The effect of sexual satisfaction on the quality of life on patients with cardiovascular disease. *International Journal of Medical Research & Health Sciences*, *5*(12), 70-75.
- Bridgland, V. M. E., Moeck, E. K., Green, D. M., Swain, T. L., Nayda, D. M., Matson, L. A., Hutchison, N. P., & Takarangi, M. K. T. (2021). Why the COVID-19 pandemic is a traumatic stressor? *PLOS ONE*, *16*(1), e0240146. <https://doi.org/10.1371/JOURNAL.PONE.0240146>.
- Brody, S., & Costa, R. M. (2009). Satisfaction (sexual, life, relationship, and mental health) is associated directly with penile-vaginal intercourse, but inversely with other sexual behavior frequencies. *Journal of Sexual Medicine*, *6*(7), 1947-1954. <https://doi.org/10.1111/j.1743-6109.2009.01303.x>
- Buczak-Stec, E., König, H. H., & Hajek, A. (2019). The link between sexual satisfaction and subjective well-being: A longitudinal perspective based on the German Ageing Survey. *Quality of Life Research*, *28*(11), 3025-3035. <https://doi.org/10.1007/s11136-019-02235-4>.
- Davison, J., & Huntington, A. (2010). "Out of sight": Sexuality and women with enduring mental illness. *International Journal of Mental Health Nursing*, *19*(4), 240-249. <https://doi.org/10.1111/j.1447-0349.2010.00676.x>.
- Diener, E., Emmons, R., & Larsen, R. J. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*(1), 71-75. http://dx.doi.org/10.1207/s15327752jpa4901_13.
- Dogan, T., Tugut, N., & Golbasi, Z. (2013). The relationship between sexual quality of life, happiness, and satisfaction with life in married Turkish women. *Sexuality and Disability*, *31*(3), 239-247. <https://doi.org/10.1007/s11195-013-9302-z>.
- Domènech-Abella, J., Lara, E., Rubio-Valera, M., Olaya, B., Moneta, M. V., Rico-Urbe, L. A., Ayuso-Mateos, J. L., Mundó, J., & Haro, J. M. (2017). Loneliness and depression in the elderly: The role of social network. *Social Psychiatry and Psychiatric Epidemiology*, *52*(4), 381-390. <https://doi.org/10.1007/s00127-017-1339-3>.
- Drouin, M., Coupe, M., & Temple, J. R. (2017). Is sexting good for your relationship? It depends.... *Computers in Human Behavior*, *75*, 749-756. <https://doi.org/10.1016/j.chb.2017.06.018>.
- Fakoya, O. A., McCorry, N. K., & Donnelly, M. (2020). Loneliness and social isolation interventions for older adults: A scoping review of reviews. *BMC Public Health*, *20*(1), 1-14. <https://doi.org/10.1186/s12889-020-8251-6>.
- Frederick, D. A., Lever, J., Gillespie, B. J., & Garcia, J. R. (2017). What keeps passion alive? Sexual satisfaction is associated with sexual communication, mood setting, sexual variety, oral sex, orgasm, and sex frequency in a national U.S. study. *Journal of Sex Research*, *54*(2), 186-201. <https://doi.org/10.1080/0224499.2015.1137854>.
- Gruber, J., Prinstein, M. J., Abramowitz, J. S., Albano, A. M., Aldao, A., Borelli, J. L., Chung, T., Clark, L. A., Davila, J., Forbes, E. E., Gee, D. G., Hall, G. C. N., Hallion, L. S., Hinshaw, S. P., Hofmann, S. G., Hollon, S. D., Joormann, J., Kazdin, A. E., Klein, D. N., ... Weinstock, L. M. (2020). *Mental health and clinical psychological science in the time of COVID-19: Challenges, opportunities, and a call to*

- action. Retrieved from <https://psyarxiv.com/desg9/>.
- Hensel, D., Rosenberg, M., Luetke, M., Fu, T., & Herbenick, D. (2020). *Changes in solo and partnered sexual behaviors during the COVID-19 pandemic: Findings from a U.S. probability survey*. Retrieved from <https://www.medrxiv.org/content/10.1101/2020.06.09.20125609v2.full.pdf>.
- Hipp, L., Bünning, M., Munnes, S., & Sauermann, A. (2020). Problems and pitfalls of retrospective survey questions in COVID-19 studies. *Survey Research Methods, 14*(2), 109-114. <https://doi.org/10.18148/SRM/2020.V14I2.7741>.
- Hudson, H. K., & Marshall, S. A. (2018). Consequences and predictors of sexting among selected Southern undergraduates. *International Journal of Sexual Health, 30*(1), 20-27. <https://doi.org/10.1080/19317611.2017.1404540>.
- Jawed-Wessel, S., Santo, J., & Irwin, J. (2019). Sexual activity and attitudes as predictors of sexual satisfaction during pregnancy: A multi-level model describing the sexuality of couples in the first 12 weeks. *Archives of Sexual Behavior, 48*, 843-854. <https://doi.org/10.1007/s10508-018-1317-1>.
- Jiao, T., Chen, J., & Niu, Y. (2019). Masturbation is associated with psychopathological and reproduction health conditions: An online survey among campus male students. *Sexual and Relationship Therapy, 1*-15. <https://doi.org/10.1080/14681994.2019.1677883>.
- Karyani, A. K., Matin, B. K., Gebu, A. A., Dizaj, J. Y., & Rezaei, S. (2019). Life and health satisfaction and their association toward health-related quality of life, body mass index and chronic diseases in Iran. *Journal of Education and Health Promotion, 8*(1), 1-7. http://dx.doi.org/10.4103/jehp.jehp_204_18.
- Klettke, B., Hallford, D. J., Clancy, E., Mellor, D. J., & Toumbourou, J. W. (2019). Sexting and psychological distress: The role of unwanted and coerced sexts. *Cyberpsychology, Behavior, and Social Networking, 22*(4), 237-242. <https://doi.org/10.1089/cyber.2018.0291>.
- Kocatepe, V. (2020). The acceptance of illness and life satisfaction of individuals with chronic disease. *International Journal of Caring, 13*(3), 1744-1751.
- Lefkowitz, E. S., Vasilenko, S. A., & Leavitt, C. E. (2016). Oral vs. vaginal sex experiences and consequences among first-year college students. *Archives of Sexual Behavior, 45*(2), 329-337. <https://doi.org/10.1007/S10508-015-0654-6>.
- Lehmiller, J. J., Garcia, J. R., Gesselman, A. N., & Mark, K. P. (2021). Less sex, but more sexual diversity: Changes in sexual behavior during the COVID-19 coronavirus pandemic. *Leisure Sciences, 43*(1-2), 295-304. <https://doi.org/10.1080/01490400.2020.1774016>.
- Li, W., Li, G., Xin, C., Wang, Y., & Yang, S. (2020). Challenges in the practice of sexual medicine in the time of COVID-19 in China. *Journal of Sexual Medicine, 17*(7), 1225-1228. <https://doi.org/10.1016/j.jsxm.2020.04.380>.
- Matotek, L., Howard, D., Clancy, E. M., Fuelscher, I., & Klettke, B. (2021). Sexting and relationship satisfaction among emerging adults: Dispelling the myth. *Sexuality & Culture, 25*(4), 1192-1203. <https://doi.org/10.1007/s12119-021-09832-x>.
- Miller, D. J., McBain, K. A., Li, W. W., & Raggatt, P. T. F. (2019). Pornography, preference for porn-like sex, masturbation, and men's sexual and relationship satisfaction. *Personal Relationships, 26*(1), 93-113. <https://doi.org/10.1111/per.12267>.
- Miller, K. (2020). *The effect of solo-masturbation and moral disapproval on the relationship between internet pornography use, religious struggles, sexual shame, and depression: A moderated mediation model* (Doctoral Dissertations and Projects). Retrieved from <https://digitalcommons.liberty.edu/doctoral/2765>.
- Muise, A., Schimmack, U., & Impett, E. A. (2016). Sexual frequency predicts greater well-being, but more is not always better. *Social Psychological and Personality Science, 7*(4), 295-302. <https://doi.org/10.1177/1948550615616462>.
- Myers, D. G., & Diener, E. (1995). Who is happy? *Psychological Science, 6*(1), 10-19. <https://doi.org/10.1111%2Fj.1467-9280.1995.tb00298.x>.
- Oriza, I. I. D., & Hanipraja, M. A. (2020). Sexting and sexual satisfaction on young adults in romantic relationship. *Psychological Research on Urban Society, 3*(1), 30-39. <https://doi.org/10.7454/proust.v3i1.61>.
- Panzeri, M., Ferrucci, R., Cozza, A., & Fontanesi, L. (2020). Changes in sexuality and quality of couple relationship during the COVID-19 lockdown. *Frontiers in Psychology, 11*, 1-8. <https://doi.org/10.3389/fpsyg.2020.565823>.
- Perry, S. L. (2020). Is the link between pornography use and relational happiness really more about masturbation? Results from two national surveys. *Journal of Sex Research, 57*(1), 64-76. <https://doi.org/10.1080/00224499.2018.1556772>.
- Randall, A. K., Leon, G., Basili, E., Martos, T., Boiger, M., Baldi, M., Hocker, L., Kline, K., Masturzi, A., Aryeetey, R., Bar-Kalifa, E., Boon, S. D., Botella, L., Burke, T., Carnelley, K., Carr, A., Dash, A., Fitriana, M., Gaines, S. O., ... Chiarolanza, C. (2021). Coping with global uncertainty: Perceptions of COVID-19 psychological distress, relationship quality, and dyadic coping for romantic partners across 27 countries. *Journal of Social and Personal Relationships, 39*(1), 3-33. <https://doi.org/10.1177/02654075211034236>.
- Regnerus, M., Price, J., & Gordon, D. (2017). Masturbation and partnered sex: Substitutes or complements? *Archives of Sexual Behavior, 46*(7), 2111-2121. <https://doi.org/10.1007/s10508-017-0975-8>.
- Rosella, L. C., Fu, L., Buajitti, E., & Goel, V. (2019). Death and chronic disease risk associated with poor life satisfaction: A population-based cohort study. *American Journal of Epidemiology, 188*(2), 323-331. <https://doi.org/10.1093/AJE/KWY245>.
- Saini, R., Saini, S., & Sharma, S. (2010). Oral sex, oral health and orogenital infections. *Journal of Global Infectious Diseases, 2*(1), 57-62. <https://doi.org/10.1007/s12119-021-09832-x>.

- org/10.4103/0974-777x.59252.
- Salari, N., Hosseinian-Far, A., Jalali, R., Vaisi-Raygani, A., Rasoulpoor, S., Mohammadi, M., Rasoulpoor, S., & Khaledi-Paveh, B. (2020). Prevalence of stress, anxiety, depression among the general population during the COVID-19 pandemic: A systematic review and meta-analysis. *Globalization and Health, 16*(1), 1-11. <https://doi.org/10.1186/s12992-020-00589-w>.
- Saputra, R. (2020, April 29). "Porn doesn't even spark joy anymore": Alone and sexually frustrated amid COVID-19 pandemic. Retrieved from <https://www.thejakartapost.com/life/2020/04/28/porn-doesnt-even-spark-joy-anymore-alone-and-sexually-frustrated-amid-covid-19-pandemic.html>.
- Schmiedeberg, C., Huyer-May, B., Castiglioni, L., & Johnson, M. D. (2017). The more or the better? How sex contributes to life satisfaction. *Archives of Sexual Behavior, 46*(2), 465-473. <https://doi.org/10.1007/s10508-016-0843-y>.
- Skalacka, K., & Gerymski, R. (2019). Sexual activity and life satisfaction in older adults. *Psychogeriatrics, 19*(3), 195-201. <https://doi.org/10.1111/psyg.12381>.
- Słowik, A., Jabłoński, M., Michałowska-Kaczmarczyk, A., & Jach, R. (2017). Evaluation of quality of life in women with breast cancer, with particular emphasis on sexual satisfaction, future perspectives and body image, depending on the method of surgery. *Psychiatria Polska, 51*(5), 871-888. <https://doi.org/10.12740/PP/OnlineFirst/63787>.
- Stephenson, K. R., & Meston, C. M. (2015). The conditional importance of sex: Exploring the association between sexual well-being and life satisfaction. *Journal of Sex & Marital Therapy, 41*(1), 25-38. <https://doi.org/10.1080/0092623X.2013.811450>.
- Træen, B., Štulhofer, A., Janssen, E., Carvalheira, A. A., Hald, G. M., Lange, T., & Graham, C. (2019). Sexual activity and sexual satisfaction among older adults in four European countries. *Archives of Sexual Behavior, 48*(3), 815-829. <https://doi.org/10.1007/s10508-018-1256-x>.
- Van Ouytsel, J., Punyanunt-Carter, N. M., Walrave, M., & Ponnet, K. (2020). Sexting within young adults' dating and romantic relationships. *Current Opinion in Psychology, 36*, 55-59. <https://doi.org/10.1016/J.COPSYC.2020.04.007>.
- Velten, J., & Margraf, J. (2017). Satisfaction guaranteed? How individual, partner, and relationship factors impact sexual satisfaction within partnerships. *PLoS ONE, 12*(2), 1-17. <https://doi.org/10.1371/journal.pone.0172855>.
- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health, 17*(5), 1-25. <https://doi.org/10.3390/ijerph17051729>.
- Wood, J. R., McKay, A., Komarnicky, T., & Milhausen, R. R. (2016). Was it good for you too? An analysis of gender differences in oral sex practices and pleasure ratings among heterosexual Canadian university students. *Canadian Journal of Human Sexuality, 25*(1), 21-29. <https://doi.org/10.3138/cjhs.251-A2>.
- Wright, P. J., Paul, B., Herbenick, D., & Tokunaga, R. S. (2021). Pornography and sexual dissatisfaction: The role of pornographic arousal, upward pornographic comparisons, and preference for pornographic masturbation. *Human Communication Research, 47*(2), 192-214. <https://doi.org/10.1093/HCR/HQAB001>.
- Zhang, S. X., Wang, Y., Rauch, A., & Wei, F. (2020). Unprecedented disruption of lives and work: Health, distress and life satisfaction of working adults in China one month into the COVID-19 outbreak. *Psychiatry Research, 288*, 112958. <https://doi.org/10.1016/j.psychres.2020.112958>.
- Zhu, X., & Shek, D. T. L. (2021). Problem behavior and life satisfaction in early adolescence: Longitudinal findings in a Chinese context. *Journal of Happiness Studies, 22*, 2889-2914. <https://doi.org/10.1007/s10902-020-00346-1>.

Appendix

Table 1 Paired Sample T-Test Results

Variables	Before pandemic		During pandemic		Paired <i>t</i> -test value
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Cuddling	3,93	0,981	3,32	1,364	14,52**
Non- penetrative	3,64	1,021	3,08	1,350	13,81**
Masturbation	2,05	1,186	1,99	1,236	2,35*
Oral sex	2,20	1,195	1,84	1,102	11,47**
Sexting	1,80	1,109	1,79	1,180	0,362
Penetrative	2,92	1,330	2,60	1,385	9,16**
Sexual satisfaction	3,39	0,654	3,05	0,915	12,19**
Life satisfaction	21,76	4,67	17,86	5,68	22,62**

* $p < 0,05$ (1-tailed), ** $p < 0,001$ (1-tailed). $N = 1006$

Table 2 Perceived Changes in Male

Variables	Before pandemic		During pandemic		Paired <i>t</i> -test value
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Cuddling	3,68	1,07	3,31	1,26	0,613**
Non-penetrative	3,51	1,08	3,10	1,3	0,608**
Masturbation	2,27	1,25	1,21	1,29	0,835**
Oral sex	2,02	1,21	1,79	1,14	0,736**
Sexting	1,59	1,01	1,53	1,00	0,703**
Penetrative	2,95	1,31	2,74	1,41	0,746**
Sexual satisfaction	3,40	0,675	3,18	0,865	0,612**
Life satisfaction	21,76	4,73	18,03	5,49	0,459**

* $p < 0,05$ (1-tailed), ** $p < 0,001$ (1-tailed). $N = 234$

Table 3 Perceived Changes in Female

Variables	Before pandemic		During pandemic		Paired <i>t</i> -test value
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Cuddling	4	0,938	3,32	1,39	0,325**
Non-penetrative	3,68	0,998	3,07	1,36	0,382**
Masturbation	1,98	1,15	1,92	1,21	0,816**
Oral sex	2,26	1,18	1,86	1,09	0,595**
Sexting	1,86	1,13	1,87	1,21	0,711**
Penetrative	2,90	1,33	2,56	1,37	0,668**
Sexual satisfaction	3,39	0,647	3,01	0,926	0,327**
Life satisfaction	21,75	4,65	17,81	5,74	0,458**

* $p < 0,05$ (1-tailed), ** $p < 0,001$ (1-tailed). $N = 772$

Table 4 Perceived Changes in Unmarried

Variables	Before pandemic		During pandemic		Paired <i>t</i> -test value
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Cuddling	3,80	1,19	2,26	1,32	0,208**
Non- penetrative	3,43	1,20	2,11	1,25	0,233**
Masturbation	2,79	1,22	2,83	1,34	0,709**
Oral sex	2,51	1,30	1,66	1,01	0,359**
Sexting	2,15	1,22	2,32	1,40	0,593**
Penetrative	2,31	1,37	1,65	1,09	0,433**
Sexual satisfaction	3,22	0,724	2,38	0,948	0,098
Life satisfaction	20,76	4,94	15,50	5,38	0,327**

* $p < 0,05$ (1-tailed), ** $p < 0,001$ (1-tailed). $N = 321$

Table 5 Perceived Changes in Married

Variables	Before pandemic		During pandemic		Paired <i>t</i> -test value
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Cuddling	3,98	0,858	3,82	1,06	0,589**
Non- penetrative	3,73	0,912	3,53	1,13	0,578**
Masturbation	1,68	0,978	1,58	0,933	0,851**
Oral sex	2,04	1,1	1,91	1,11	0,827**
Sexting	1,62	0,992	1,53	0,946	0,792**
Penetrative	3,20	1,20	3,05	1,27	0,762**
Sexual satisfaction	3,47	0,595	3,37	0,700	0,575**
Life satisfaction	22,19	4,49	18,96	5,47	0,506**

* $p < 0,05$ (1-tailed), ** $p < 0,001$ (1-tailed). $N = 670$

Table 6 Pearson's Correlation Results

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1 Cuddling before	3,93	0,98	–							
Cuddling during	3,32	1,36								
2 Non-penetrative before	3,64	1,02	0,742**	–						
Non-penetrative during	3,08	1,35	0,86**							
3 Masturbation before	2,05	1,18	–0,09**	0,000	–					
Masturbation during	1,99	1,19	–0,26**	–0,19**						
4 Oral sex before	2,20	1,19	0,265**	0,355**	0,368**	–				
Oral sex before	1,84	1,10	0,38**	0,421**	0,166**					
5 Sexting before	1,80	1,11	0,080**	0,151**	0,366**	0,378**	–			
Sexting during	1,79	1,18	–0,16**	–0,13**	0,397**	0,156**				
6 Penetrative before	2,92	1,33	0,344**	0,438**	–0,13	0,323**	0,130**	–		
Penetrative during	2,6	1,38	0,633**	0,673**	–0,14**	0,473**	–0,062*			
7 Sexual satisfaction before	3,39	0,65	0,417**	0,427**	–0,078**	0,202**	0,121**	0,308**	–	
Sexual satisfaction during	3,05	0,92	0,625**	0,608**	–0,22**	0,298**	–0,139**	0,545**		

Table 6 Pearson's Correlation Results (Continued)

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
8 Life satisfaction before	21,7	4,67	0,234**	0,197**	-0,104**	0,039	-0,006	0,139**	0,240**	-
Life satisfaction during	17,8	5,68	0,290**	0,272**	-0,15**	0,120**	-0,089**	0,264**	0,360**	

* $p < 0,05$ (1-tailed), ** $p < 0,001$ (1-tailed). $N = 1006$

Table 7 Pearson's Correlation Results on Male

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1 Cuddling before	3,68	1,07	-							
Cuddling during	3,31	1,26								
2 Non-penetrative before	3,51	1,08	0,829**	-						
Non-penetrative during	3,10	1,3	0,845**							
3 Masturbation before	2,27	1,25	-0,104	-0,082	-					
Masturbation during	1,21	1,29	-0,339**	-0,24**						
4 Oral sex before	2,02	1,21	0,291**	0,321**	0,432**	-				
Oral sex before	1,79	1,14	0,327**	0,363**	0,221**					
5 Sexting before	1,59	1,01	0,114*	0,136*	0,324**	0,341**	-			
Sexting during	1,53	1	-0,097	-0,106	0,299**	0,172**				
6 Penetrative before	2,95	1,31	0,520**	0,571**	-0,84	0,291**	0,089	-		
Penetrative during	2,74	1,41	0,632**	0,662**	-0,22**	0,400**	-0,042			
7 Sexual satisfaction before	3,40	0,675	0,605**	0,529**	-0,19**	0,210**	-0,027	0,355**	-	
Sexual satisfaction during	3,18	0,865	0,638**	0,617**	-0,38**	0,25**	-0,16**	0,528**		
8 Life satisfaction before	21,76	4,73	0,283**	0,268**	-0,130*	0,079	0,007	0,149*	0,328**	-
Life satisfaction during	18,03	5,49	0,213**	0,138**	-0,127*	0,094	-0,066	0,108*	0,270**	

* $p < 0,05$ (1-tailed), ** $p < 0,001$ (1-tailed). $N = 234$

Table 8 Pearson's Correlation Results on Female

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1 Cuddling before	4	0,938	-							
Cuddling during	3,32	1,39								
2 Non-penetrative before	3,68	0,998	0,709**	-						
Non-penetrative during	3,07	1,36	0,864**							
3 Masturbation before	1,98	1,15	-0,067*	0,038	-					
Masturbation during	1,92	1,21	-0,237**	-0,181**						
4 Oral sex before	2,26	1,18	0,246*	0,361**	0,363**	-				
Oral sex before	1,86	1,09	0,400**	0,440**	0,151**					
5 Sexting before	1,86	1,13	0,053	0,148**	0,399**	0,382**	-			
Sexting during	1,87	1,21	-0,176**	-0,143**	0,448**	0,151**				

Table 8 Pearson's Correlation Results on Female (Continued)

	Variables	M	SD	1	2	3	4	5	6	7	8
6	Penetrative before	2,90	1,33	0,292**	0,398**	-0,008	0,336**	0,144**	-		
	Penetrative during	2,56	1,37	0,635**	0,678**	-0,122**	0,500**	-0,060*			
7	Sexual satisfaction before	3,39	0,647	0,356**	0,394**	-0,042	0,202**	0,164**	0,294**	-	
	Sexual satisfaction during	3,01	0,926	0,624**	0,607**	-0,187**	0,317**	-0,125**	0,548**		
8	Life satisfaction before	21,75	4,65	0,221**	0,174**	-0,096**	0,027	-0,009	0,136**	0,212**	-
	Life satisfaction during	17,81	5,74	0,311**	0,308**	-0,156**	0,128**	-0,107**	0,310**	0,384**	

* $p < 0,05$ (1-tailed), ** $p < 0,001$ (1-tailed). $N = 772$