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The Relationship between Covid-19 Anxiety and Quality of Sexual Life among Women of Reproductive Age during Lockdown

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ABSTRACT

Background & aim: The Covid-19 pandemic affected all aspects of people's personal lives and gave rise to the increase of major issues such as physical, psychological, and social problems. The literature has reported a relationship between Covid-19 anxiety and quality of sexual life. Therefore, the present research was designed to investigate the relationship between Covid-19 anxiety and the quality of sexual life among women of reproductive age during the lockdown.

Methods: This was a cross-sectional study that was designed and conducted on 750 women of reproductive age during the Covid-19 pandemic, who were selected using cluster sampling from comprehensive health centers in Urmia, Iran in 2020. The data collection tools comprised three questionnaires: demographic questionnaire, Sexual Quality of Life-Female questionnaire (SQOL-F) and Corona Disease Anxiety Scale (CDAS), which was completed on a self-report basis. The nonparametric statistical test, ANOVA test, t-students and Pearson correlation were used to analyse data.

Results: The results revealed a reveres and significant correlation between Covid-19 anxiety and SQOL-F. Furthermore, several demographic characteristics including age, duration of the marriage, having children and educational level had a significant relationship with Covid-19 anxiety and the SQOL-F.

Conclusion: Taking into account the Covid-19 anxiety and its effect on the quality of sexual life, professional specialists in the field of preventive medicine and healthcare should pay more attention to these dimensions of life and take crucial and effective measures to improve the quality of sexual life and reduce the anxiety linked to Covid-19.

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Introduction

Covid-19 causes a great level of anxiety, which can be due to its unknown nature and cognitive ambiguity in people. According to large population-based surveys, up to 33.7% of the population suffers from an anxiety disorder at some point in their lives (1). The COVID-19 pandemic induced a worldwide increase of 25% in the incidence of anxiety and depression (2). The fear of the unknown reduces the perception of safety in humans and causes anxiety in human beings. The little scientific information regarding Covid-19 aggravates this anxiety (3).

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At these moments, individuals seek to find more information to relieve their anxiety. Anxiety can prevent individuals from distinguishing accurate information from false information (4).

The Coronavirus outbreak resulted in the reduction of loss of social roles and marital intimacy and caused a variety of psychological problems for each of the couples, which can give rise to negative feelings such as fear, anxiety, depression and aloofness in people (5). Clinical anxiety can lead to a reduction in the quality of life and sexual dysfunction (6).

In the majority of cases, in case couples try to have sexual intercourse when they encounter nervous pressure, anxiety, stress, low mood, and so forth; due to the special condition that they experienced, they will be unable to enjoy their relationship and will fail to experience a successful sexual function and sexual satisfaction. In case, for any reason whatsoever, either couple is forced to have intercourse, it will lead to their incompetence, and since they have experienced disruption in orgasm and sexual desire, they might come to believe that they are sexually incompetent, and it will diminish their sexual confidence (7-9). Children's consistent presence at home, the physical structure of houses (small houses), fear of a vague future, the gravity of the economic status of the family, change of lifestyle, anxiety regarding spreading the disease through sexual intercourse, absolute lockdown in the house, and reduction of self-relaxing activities such as working, going for a spin, window shopping, shopping, or other emotional and affective entertainments influence the quality of couples' life. The social problems experts believe domestic violence and disputes during the Covid-19 pandemic will lead to requests for divorce after the lockdown. A phenomenon not specific to Iran and prevalent internationally is divorce during Covid-19 (10).

The quality of sexual life is completely intellectual and depends on a person's perception of their sexual circumstances (11). There is a consensus that the quality of sexual life has a reciprocal and intertwined relationship with satisfaction and the general quality of life, such that the lower quality of sexual life indicates a person's lower health status and general quality of life in society (12).

Women's unpleasant status of sexual life is a prevalent problem that causes harmful effects on the quality of their lives. Sexual dysfunction might linger throughout their life or aggravates after a period of normal function (13, 14). It appears that conducting research can significantly improve the psychological health of society during this critical situation, particularly the anxiety caused by this situation, as well as the sexual and reproductive health of women and the health of society as a whole. Considering the impact of Covid-19 related-anxiety on various aspects of individuals' lives, especially sexual life, this study aimed to examine the relationship between Covid-19 anxiety and quality of sexual life in women of reproductive age during covid-19 lockdown.

Materials and Methods

This is a cross-sectional study, which was conducted in the comprehensive health centers of the county of Urmia, the capital of the province of West Azerbaijan, Iran. The study included 750 married women of reproductive age. The sampling process and research implementation took place between May 2, 2020, and May 21, 2020. After obtaining the permission from the Ethics Committee and the Department of Research, sampling was done through two-stage cluster sampling. The health centers in Urmia are divided into three groups according to the Department of Health's classification based on the socioeconomic, and cultural status. To select the health centers for study, the centers were classified into 26 with high socioeconomic, 19 with middle socioeconomic, and 20 with low socioeconomic status. In the first stage, 20 centers (eight centers from the high socioeconomic class, six centers from the middle class, and six centers from the low socioeconomic class) (approximately one-third) were selected through random sampling using computer (www.Random.org). Then, in the second stage, the sample size was calculated (n=750). Afterward, the list of all women under the coverage of each center was extracted, the cases were listed based on their phone number, and samples were selected randomly according to the ratio of that center. The researcher contacted the participants using the phone numbers in their medical records and provided

them explanations about the purpose and procedure of study as well as confidentiality assurances. Then the eligibility of participants were assessed. In case of meeting the inclusion criteria and having willingness to participate in the study and announcing their verbal consent, the participants were asked to answer the questions via telephone. The participants were ensured that their information would be remained confidential. The participants took part in the research freely and voluntarily. The sample size was estimated to be 652 through the correlation coefficient test using G*Power software; this number was rounded off, and after adding the 15% attrition, the total number was obtained (n=750).

The following criteria were considered as inclusion criteria for the study: Women of reproductive age (15-49), married women who are continuing their marital life (not on the verge of divorce), and women who had sexual intercourse within the last six months. Women who are not suffering from underlying or chronic diseases (especially acute and uncontrollable psychological illness), women who are not receiving special treatment regarding their sexual function such as psychotherapy or participating in training classes and whose husband is not suffering from any type of sexual dysfunction. Exclusion criteria for this study: Suffering from auditory and communicative problems and lack of interest in participation in the study. Demographic information questionnaire, Questionnaire of Sexual Quality of Life-Female (SQOL-F) and Corona Disease Anxiety Scale (CDAS) were used in this study. Demographic information questionnaires were designed based on the objective of the study. The demographic information questionnaire comprised age, duration of the marriage, having a child, pregnancy status, education, participants' occupation and their spouse, sufficient monthly income for livelihood expenses, etc. The SQOL-F was first developed in 1998, then revised by Simon et al. (2005). This is a self-report tool which emphasizes the sexual confidence, affective and communicative beliefs of women and consists of 18 items. The questionnaire constitutes four main sections, i.e., sexual-psychological affects, sexual and relationship satisfaction, self-devaluation, and sexual repression. Five items in the first section, five in the second section, four in the third section, and four items in the fourth section, each of which was scored based on a 6-point scale from totally agree to totally disagree in the Likert scale. The responses were scored from 1 to 6, and the final scores ranged from 18 to 108. The higher scores indicated a better quality of sexual life in women. Scored from 18 to 36 signified low sexual life quality, scores from 37 to 72 signified average sexual life quality, and scores from 73 to 108 signified a high quality of sexual life (15). The Persian version of the SQOL-F was available, and its validity was investigated by Masoumi et al. (2017), and its Cronbach's alpha coefficient was reported to be 0.72 (16).

CDAS was developed and validated to measure Covid-19 anxiety in the Iranian sample. This scale constitutes 18 questions in two fields of psychological symptoms, i.e., nine questions (1-9), and psychical symptoms, i.e., nine questions (10-18). This tool was scored based on a 4-point Likert scale (0=never, 1=sometimes, most of the time = 2 and 3=always). Thus, the highest and lowest scores obtained by the participants ranged 0 to 54. The scores obtained from the scale were divided into three domains of no anxiety, slight anxiety (0-16), mild anxiety (17-29), and acute anxiety (30-54). Therefore, the highest scores in this questionnaire indicate the participants' high anxiety levels. The reliability of the Covid-19 scale was examined using Cronbach's alpha coefficient for the first factor (α=0.87), second factor (α=0.86), and the whole scale (α=0.91). Alipour et al. (2020) investigated the criterion-related validity and correlation of the scale and correlated this scale with GHQ-28. The results revealed that the CDAS had a correlation with the total score of GHQ-28, the component of anxiety, physical symptoms of disruption in social efficiency, and depression amounting to 0.483, 0.507, 0.418, 0.333, and 0.269, respectively, and all these coefficients were

After collecting and entering the data in SPSS20, the numbers and percentages were used to provide qualitative properties, plus mean and standard deviation were used for

quantitative properties. The level of significance was considered to be less than 0.05.

Results

Table 1 shows that two-thirds of participants aged 15-34 were homemakers and had average income proportionate to their expenditures (fair financial situation).

Table 1. Frequency distribution of demographic characteristics of women of reproductive age

Variable	N (%)
Age(year)	
15-34	489 (65.2)
35-49	261 (34.8)
Financial status	
Not enough	168 (22.4)
Fair	574 (76.7)
No money problem	7 (9)
Education	
Non-academic education	302 (40.3)
Academic education	448 (59.7)
Duration of the marriage (year)	
Less than 10 years	427 (56.9)
11 years and more	323 (43.1)
Having a child	
Yes	638 (85.1)
No	112 (14.9)
Pregnancy status	
Pregnant	103 (13.7)
Breastfeeding	145 (19.3)
Desire to get pregnant (Under pre-conception care)	55 (7.3)
No intention to get pregnant	447 (59.6)
Occupation	
Employed	76 (10.1)
Homemaker	674 (89.9)
Spouse occupation	
Manual worker	53 (7.1)
Employee	173 (23.1)
Self-employed	520 (69.3)
Unemployed	4 (5)

More than half of the participants have been married for less than ten years, most had children, more than half held an academic degree and high school Completion Certificate and higher, and their husbands were self-employed (business people).

The results indicated that more than half of the participants were not interested in having children and were using birth control methods. Accordingly, 79.7% of participants reported that the Covid-19 pandemic negatively affected their economic status, and 33.7% stated that their family arguments increased during the Covid-19 pandemic.

Table 2 manifests the mean and standard deviation of the scores of the sexual quality of life and Covid-19 anxiety and each of their dimensions in women of reproductive age during the Covid-19 crisis. Furthermore, the results revealed that 42.1% of the participants obtained the average SQOL-F score, while others obtained a high SQOL-F. Moreover, approximately 27.8% of the participants suffered from mild and others from slight anxiety.

The results of the data analysis demonstrated that the SQOL-F had a statistically significant relationship with age, duration of the marriage, having or not having children, education, economic status, and spouses' occupation. Besides, there was a statistically significant relationship between reproductive status and education. (Table 3).

According to Table 4, the results of the Pearson correlation test were conducted, and the SQOL-F had a statistically significant and reverse correlation with the Covid-19 anxiety subscales of psychological and physical symptoms of the Covid-19 anxiety indicated.

Table 2. Scores for Sexual Quality of life and COVID-19 Anxiety

Variable	Minimum	Maximum	Mean± SD
Sexual quality of life	43	103	70.39± 8.17
Psychosexual Feelings	11	43	18.66 ±1.78
Sexual and Relationship Satisfaction	11	39	19.85 ±3.06
Self-Worthlessness	9	19	15.9 ±2.09
Sexual Repression	6	47	15.83 ± 3.15
Corona Disease Anxiety	0	40	12.68 ± 6.66
Psychological symptoms	0	27	12.36 ±5.08
Psychical symptoms	0	17	2.33 ±2

Furthermore, Table 5, using the Pearson correlation, demonstrated that Covid-19 anxiety had a statistically significant and reverse correlation with SQOL-F, subscales of psychosexual feelings, sexual and relationship satisfaction, self-worthlessness and sexual repression.

Table 3. The relationship between CDAS and SQOL-F with characteristics of women of reproductive age

Variable	SQOL-F	CDAS
	Mean±SD	Mean±SD
Age(year)		
15-34	70.91±7.33	12.51±6.57
35-49	69.23±8.85	13±6.84
P-Value	P<0.001*	0.34
Financial status		
Not enough	68.30±8.84	13.25±6.73
Fair	71.03±7.88	12.56±6.65
No money problem	9±5.41	68.71±7.36
P-Value	P<0.001*	0.17
Education		
Non-academic education	69.28±8.34	13.56±6.81
Academic education	71.04±7.56	12.09±6.5
P-Value	P<0.001*	P<0.001*
Duration of the marriage (year)		
Less than 10years	70.89±7.46	12.43±6.44
11 years and more	69.58±8.46	13±6.94
P-Value	P<0.001*	0.24
Having a child		
Yes	70.04±8.19	12.44±6.31
No	71.95±6	12.72±6.73
P-Value	P<0.001*	0.67
Pregnancy status		
Pregnant	71.30±6.12	14.40±5.65
Breastfeeding	70.90±7.67	11.90±6.57
Desire to get pregnant (Under pre-conception care)	70.87±8.09	12.27±6.17
No intention to get pregnant	69.96±8.72	12.59±6.91
P-Value	0.37	0.03*
Occupation		
Employed	71.18±8.24	11.82±6.43
Homemaker	70.31±8.17	12.78±6.69
P-Value	0.39	0.61
Spouse occupation		
Manual worker	67.13±9.01	14.09±6.48
Employee	71.36±7.58	12.15±6.51
Self-employed	70.45±8.19	12.75±6.7
Unemployed	66±9.12	8.25±7.88
P-Value	0.008*	0.15

* Statistically significant (P < 0.05)

Table 4. Correlation between SQOL-F and CDAS

Variable	r	P-Value
Corona Disease Anxiety	-0.15	P<0.001*
psychological symptoms	-0.13	P<0.001*
psychical symptoms	-0.16	P<0.001*

*Correlation is significant at the 0.01 level

However, there was no correlation between Covid-19 anxiety and sexual-psychosexual feelings.

Table 5. Correlation between CDAS and SQOL-F

Variable	r	P-Value
Sexual quality of life	-0.15	P<0.001*
Psychosexual Feelings	-0.05	0.16
Sexual and Relationship Satisfaction	-0.14	P<0.001*
Self-Worthlessness	-0.15	P<0.001*
Sexual Repression	-0.16	P<0.001*

*Correlation is significant at the 0.01 level

Discussion

The current study sought to ascertain the relationship between Covid-19 anxiety and sexual life quality in women of reproductive age during the Covid-19 lockdown. The findings showed a statistically significant relationship between age and the SQOL-F. This means that the participants with the age range of 15 to 34 had a higher SQOL-F. By increasing age, the SQOL-F was decreased in the participants, which agreed with the study's results by Ping et al. (2020) (17). In the present research, there was a statistically significant relationship between the duration of marriage and SQOL-F. By the increase of the duration of marriage over ten years, the SQOL-F was decreased. The results of study' by Masoumi et al. (2017) revealed that marital satisfaction decreased with the increase in the duration of the marriage (18). It appears the increase in the duration of the marriage and encountering new challenges resulted in the reduction of SQOL-F. Besides, the present study indicated that SQOL-F had a statistically significant relationship with having or not having children. These results corresponded to the results of the study by Panzeri et al. (2020) (19). To elaborate on this issue, it can be stated that with the increase in age and the number of children, parents are required to spend more time with their children. The permanent presence of children at home during the lockdown reduced privacy and intimacy between spouses. Finally, it led to a reduction of the SQOL-F.

According to the present research, there was a statistically significant relationship between the economic status and the SQOL-F, i.e., the participants with a middle income had a higher SQOL-F than low-income participants. As the economic status increases, the SQOL-F improves as well; however, these results were not observed in high-income participants, which can be since merely 9% of the participants had high economic status. Therefore, the results cannot be reliable. In addition, 80% of the participants in the present research stated that the Covid-19 crisis resulted in financial and economic problems for them. Consistent with the results of different studies, the Covid-19 pandemic caused major economic problems and mainly affected people's life and occupation, especially in low-income countries. The economic stress pertinent to the Covid-19 crisis, including the increase in poverty, economic stagnation, and unemployment, leads to mental instability, such as suicide. Similar results were reported in the countries such as Bangladesh, India, and Pakistan (20, 21).

The present research indicated a statistical relationship between the SQOL-F and spouses' occupations. A higher SQOL-F was observed in participants whose husbands were governmental employees. It could be because the Covid-19 crisis affected almost all occupations; however, the governmental employees received their monthly salary and had more economic stability, with higher SQOL-F. According to the present research, the Covid-19 crisis had the minimum negative effect on the SQOL-F of the government employees and the unemployed participants had the lowest SQOL-F. The results of the study by Effati-Daryani et al. (2020) revealed that the sufficient income of the family improved the symptoms of stress in pregnant women during the Covid-19 pandemic (22).

The analytical results indicated a statistically significant relationship between education and SQOL-F. Therefore, women with a higher academic degree had higher SQOL-F than other women. Because of their higher social,

economic, knowledge, and information level, the educated women probably received better and in-time medical services and effectively coped with this crisis. Zhong et al. (2020) reported that participants with a higher academic degree enjoy better attributes and higher knowledge regarding Covid-19 (23).

In this study, the SQOL-F had no statistically significant relationship between fertility and the participant's occupation. Moreover, the study revealed a statistically significant relationship between Covid-19 anxiety and fertility status. This study observed the highest mean of anxiety in pregnant women. Pregnancy is not so sweet and pleasant experience for all women, and it can lead to a spectrum of disparate responses in a person ranging from positive to negative. Typically, women respond with anxiety to the events during their pregnancy. During the Covid-19 pandemic, the fear of infection and the probable side effect of Covid-19 on their infant resulted in the aggravation of anxiety in these women. According to Maharlouei et al. (2020), depression and anxiety increased in pregnant women during the Covid-19 pandemic (24).

The results of the present research indicated that there was a statistically significant relationship between Covid-19 anxiety and education. Women with lower academic degrees scored the lowest on the anxiety test. The study results by Effati-Daryani et al. (2020) showed that academic education has a reverse relationship with the intensity of stress (22). The results of studies in the general population confirmed this result (25). It can be because inadequate and sometimes false information and low literacy can aggravate anxiety and stress.

Furthermore, the present research results revealed no statistically significant relationship between Covid-19 anxiety and the duration of the marriage. As the duration of marriage increases, Covid-19 anxiety increases as well. Maarefvand et al. (2020), in their research, found that middle-aged participants had more stress regarding the Coronavirus than the other age ranges (26). The results of the study by Szabo et al. (2020) demonstrated that middle-aged participants feel more threatened during the lockdown and the Covid-19 pandemic than other age ranges. Furthermore, middle-aged participants were more pessimistic about the Covid-19 crisis than other age ranges (27). Apparently, as a person ages, due to the reduction of their physical energy, their physical ability to cope with stress decreases as well.

The analytical results indicated that the SQOL-F had a significant and reverse correlation with Covid-19 anxiety and its dimensions. The increase in Covid-19 anxiety leads to the reduction of SQOL-F. Besides, approximately one-third of the participants stated that their family arguments were aggravated during the Covid-19 crisis, imposing the restrictions and lockdown. Daneshfar et al. (2020) reported that stress and anxiety during the lockdown negatively affected women's quality of life and reduced their satisfaction with marital life and sexual function (28). Consistent with Schiav et al. (2020), there was a reduction in sexual function and the quality of life among women during pregnancy during the social restrictions due to the Covid-19 pandemic. Even though the duration of marriage increased, women who lived with their sexual partner decreased their sexual activity considerably, especially in women who had sexual intercourse four times per month before social restrictions, up to 52 (58.4%) from 89 (100%). They believed that they should observe the imposed social distance to reduce the transmission of infection and death (29). The present research revealed that approximately 27.8% of participants suffered from middle to acute anxiety, which corresponded to the results of Moghanibashi (2020) to a considerable extent (30). Besides, the present research results indicated that 42.1% of the participants scored the middle in SQOL-F. In other words, the desirable and higher level of life was not observed among them. Moreover, Turban et al. (2020) conducted a study that demonstrated that a higher understanding of Covid-19 leads to a considerable reduction in the frequency of sexual activities since sexual touch is considered to increase the risk of transmission of Covid-19. (31). The results of the study by Zhang and Ma (2020) indicated that more than half of the participants (52.1%) reported that they felt fear and horror on account of the Covid-19 pandemic (32).

This strengths of the study included large sample size using cluster sampling. The cross-sectional design of this research is a limitation. The relationships between socio-demographic variables and anxiety and the quality of sexual life, as well as the relationship between anxiety and the quality of sexual life among women of reproductive age during the lockdown, cannot accurately represent the causal relationship. Face-to-face data collection was impossible in Iran due to a widespread disease outbreak. Another limitation of the study was that the researcher completed questionnaires over the phone, which may have affected the results. As a result of these limitations, this study may not be representative of the anxiety and quality of sexual life among Iranian women of reproductive age during the lockdown.

Conclusion

Considering that the present research was carried out to examine the relationship between Covid-19 anxiety and SQOL-F during the Covid-19 pandemic in women of reproductive age, the Covid-19 anxiety and its impact on the SQOL-F was evident. Thus, professional specialists in the field of preventive medicine and healthcare should conduct interventions to improve the quality of sexual life through reducing anxiety linked to Covid-19. The interventions in medicine and health during the Covid-19 pandemic has mainly focus on physical dimension of individuals and pay less attention to mental and psychological problems including stress, anxiety, and especially sexual quality of life. The field of sexual problems is the forgotten dimension of patients' follow-up and in order to control the present situation, it is recommended to conduct psychological intervention and sexual consultation for women during pandemics.

Declarations

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Conflicts of interest

Authors declared no conflicts of interest.

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Ethical Considerations

The following ethical considerations were observed in the data collection process: Explaining the objectives of the research to the participants, voluntary participation in the research, maintaining anonymity and confidentiality of data collected from the participants.

Code of Ethics

The study was approved by the Ethics Committee of Urmia University of Medical Sciences Iran with code of IR. umsu.rec1399.023.

Authors' Contributions

SR and SA contributed to the design of the study and wrote this manuscript. SA collected data. SR reviewed the manuscript critically for important intellectual content. All authors read and approved the final manuscript and agreed to be accountable for all aspects of the study.

References

1. Bandelow B, Michaelis S. Epidemiology of anxiety disorders in the 21st century. Dialogues in clinical neuroscience. 2022; 17(3): 327-335.
2. Vos T, Lim SS, Abbafati C, Abbas KM, Abbasi M, Abbasifard M, et al. Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the global burden of disease study 2019. The lancet. 2020; 396(10258): 1204-1222.
3. Bajema KL, Oster AM, McGovern OL, Lindstrom S, Stenger MR, Anderson TC, et al. Persons evaluated for 2019 novel coronavirus—United States, January 2020. Morbidity and Mortality Weekly Report. 2020; 69(6): 166.
4. Kai-Wang K, Tsang OT-Y, Yip CC-Y, Chan K-H, Wu T-C, Chan JM-C, et al. Consistent detection of 2019 novel coronavirus in saliva. Clinical Infectious Diseases. 2020; 71(15): 841-843.
5. Xiao C. A novel approach of consultation on 2019 novel coronavirus (COVID-19)-related psychological and mental problems: structured

letter therapy. Psychiatry investigation. 2020; 17(2): 175.
6. Campos JGS, Villegas JR, Galo AP, Malanda NM, Rivero JLG, Sierra CP, et al. Impact of asthma on the sexual functioning of patients, a case control study. Archivos de Bronconeumología (English Edition). 2017; 53(12): 667-674.
7. Dehkordi MA, Mohammadi A, Alipour A, Mohtashami T. The impact of cognitive behavioral sex therapy on decreasing anxiety and increasing sexual function in people with vaginismus. International Journal of Health Studies. 2017; 3(2): 15-20.
8. Van Minnen A, Kampman M. The interaction between anxiety and sexual functioning: A controlled study of sexual functioning in women with anxiety disorders. Sexual and Relationship Therapy. 2000; 15(1): 47-57.
9. Effati-Daryani F, Jahanfar S, Mohammadi A, Zarei S, Mirghafourvand M. The relationship between sexual function and mental health in Iranian pregnant women during the COVID-19 pandemic. BMC pregnancy and childbirth. 2021; 21(1): 1-8.
10. Li S, Wang Y, Xue J, Zhao N, Zhu T. The impact of COVID-19 epidemic declaration on psychological consequences: a study on active Weibo users. International journal of environmental research and public health. 2020; 17(6): 2032.
11. Group TW. The World Health Organization quality of life assessment (WHOQOL): development and general psychometric properties. Social science & medicine. 1998; 46(12): 1569-1585.
12. Ventegodt S. Sex and the quality of life in Denmark. Archives of sexual behavior. 1998; 27(3): 295-307.
13. Bogart LM, Suttorp MJ, Elliott MN, Clemens JQ, Berry SH. Prevalence and correlates of sexual dysfunction among women with bladder pain syndrome/interstitial cystitis. Urology. 2011; 77(3): 576-580.
14. Masoudi M, Maasoumi R, Bragazzi NL. Effects of the COVID-19 pandemic on sexual functioning and activity: a systematic review and meta-analysis. BMC Public Health. 2022; 22(1): 189.
15. Symonds T, Boolell M, Quirk F. Development of a questionnaire on sexual quality of life in women. Journal of sex & marital therapy. 2005; 31(5): 385-397.
16. Maasoumi R, Lamyian M, Montazeri A, Azin SA, Aguilar-Vafaie ME, Hajizadeh E. The sexual quality of life-female (SQOL-F) questionnaire: translation and psychometric properties of the Iranian version. Reproductive health. 2013; 10(1): 1-6.
17. Ping W, Zheng J, Niu X, Guo C, Zhang J, Yang H, et al. Evaluation of health-related quality of life using EQ-5D in China during the COVID-19 pandemic. PloS one. 2020; 15(6): e0234850.
18. Masoumi SZ. The status and marital satisfaction factors in nulliparous pregnant females attending clinics in asadabad city during years 2015 and 2016. Avicenna Journal of Nursing and Midwifery Care. 2017; 25(1): 52-59.
19. Panzeri M, Ferrucci R, Cozza A, Fontanesi L. Changes in sexuality and quality of couple relationship during the Covid-19 lockdown. Frontiers in Psychology. 2020; 11.
20. Baldwin R, Di Mauro BW. Economics in the time of COVID-19: A new eBook. Vox CEPR Policy Portal. 2020; 2(3): 105-119.
21. Bhuiyan AI, Sakib N, Pakpour AH, Griffiths MD, Mamun MA. COVID-19-related suicides in Bangladesh due to lockdown and economic factors: case study evidence from media reports. International Journal of Mental Health and Addiction. 2020; 19: 2110-2115.
22. Effati-Daryani F, Zarei S, Mohammadi A, Hemmati E, Yngyknd SG, Mirghafourvand M. Depression, stress, anxiety and their predictors in Iranian pregnant women during the outbreak of COVID-19. BMC psychology. 2020; 8(1): 1-10.
23. Zhong B-L, Luo W, Li H-M, Zhang Q-Q, Liu X-G, Li W-T, et al. Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the COVID-19 outbreak: a quick online cross-sectional survey. International journal of biological sciences. 2020; 16(10): 1745.
24. Maharlouei N, Keshavarz P, Salemi N, Lankarani KB. Depression and anxiety among pregnant mothers in the initial stage of the Coronavirus Disease (COVID-19) pandemic in the southwest of Iran. Reproductive health. 2021; 18(1): 111.
25. Fallahzadeh H, Momayyezi M, Nikokaran J. Prevalence of depression, anxiety and stress in Yazd (2013). Tolooebehdasht. 2016; 15(3): 155-164.
26. Maarefvand M, Hosseinzadeh S, Farmani O, Safarabadi Farahani A, Khubchandani J. Coronavirus outbreak and stress in iranians. International Journal of Environmental Research and Public Health. 2020; 17(12): 4441.
27. Szabo A, Ábel K, Boros S. Attitudes toward COVID-19 and stress levels in Hungary: Effects of age, perceived health status, and gender. Psychological Trauma: Theory, Research, Practice, and Policy. 2020; 12(6): 572.

28. Daneshfar Z, Jahanian SS, Youseflu S, Khomami MB, Kazemnejad A. Influential Factors on quality of life in married Iranian women during the Covid-19 pandemic in 2020: A Path Analysis. BMC Women's Health. 2020; 21: 1-8.
29. Schiavi MC, Spina V, Zullo MA, Colagiovanni V, Luffarelli P, Rago R, et al. Love in the time of COVID-19: Sexual function and quality of life analysis during the social distancing measures in a group of italian reproductive-age women. The Journal of Sexual Medicine. 2020; 17(8): 1407-1413.
30. Amir M-M. Assessing the anxiety level of Iranian general population during COVID-19 outbreak. Asian journal of psychiatry. 2020; 51: 102076.
31. Turban JL, Keuroghlian AS, Mayer KH. Sexual Health in the SARS-CoV-2 Era. Annals of internal medicine. 2020; 173(5): 387-389.
32. Zhang Y, Ma ZF. Impact of the COVID-19 pandemic on mental health and quality of life among local residents in liaoning province, China: A cross-sectional study. International journal of environmental research and public health. 2020; 17(7): 2381.