BMJ Open Mediating role of psychological distress and domestic violence in the association of fear of COVID-19 with marital satisfaction and sexual quality of life among women of reproductive age: An Iranian cross-sectional study

Zainab Alimoradi , ¹ Nasim Bahrami, ¹ Samaneh Khodaparast, ¹ Mark D Griffiths , ² Amir H Pakpour , ³

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For numbered affiliations see end of article.

Correspondence to

Nasim Bahrami; nbahrami87@gamil.com and Amir H Pakpour; amir.pakpour@gmail.com

ABSTRACT

Objectives This study aimed to determine the mediating role of psychological distress and domestic violence in the association of fear of COVID-19 with marital satisfaction and sexual quality of life (QoL) among Iranian women of reproductive age.

Methods A cross-sectional study comprising 324 married women was conducted. Online convenience sampling was used to collect data. SPSS PROCESS macro was used for the mediation analysis. The direct and indirect effects of the fear of COVID-19 on sexual QoL and marital satisfaction were estimated comprising a 95% CI using 5000 bootstrap samples. Pairwise comparisons between the mediators were calculated by Hayes' macros. Results A positive/negative or suspected history of COVID-19 infection had marginally significant relationship with marital satisfaction (p=0.049). The total effect of fear of COVID-19 on sexual QoL was significant (b=-1.31,

SE=0.20, p<0.001). Fear of COVID-19 had no significant direct effect on sexual QoL (b=-0.22, SE=0.19, p=0.24) but it had an indirect effect on sexual QoL via mediation of psychological distress (b=-0.34, SE=0.09, 95% CI: -0.53 to -0.19) and domestic violence (b=-0.75, SE=0.18, 95% CI: -1.12 to -0.40). The total effect of fear of COVID-19 on marital satisfaction was significant (b=-1.91, SE=0.32, p<0.001). Fear of COVID-19 had no significant direct effect (b=0.20, SE=0.25, p=0.42) on marital satisfaction but it had an indirect effect on marital satisfaction via mediation of psychological distress (b=-0.59, SE=0.13, 95% CI: -0.86 to -0.36) and domestic violence (b=-1.51, SE=0.29, 95% CI: -2.08 to -0.92).

Conclusion The fear of COVID-19 during the pandemic indirectly decreased women's marital satisfaction and sexual QoL via increased psychological distress and domestic violence. Consequently, in critical situations such as the COVID-19 pandemic, improving couples' psychological health and reducing domestic violence are likely to improve women's sexual QoL and marital satisfaction.

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ An appropriate sample size and the application of structural equation modelling provided methodological and statistical rigour to the study.
- ⇒ The cross-sectional design of study meant the directionality between variables could not be determined.
- ⇒ The reliance on self-report data provided the possibility of biases (eg, social desirability).
- ⇒ The convenience sampling method meant the study sample was not representative.

INTRODUCTION

At the end of 2019, the outbreak of pneumonia of unknown cause in Wuhan (China) was announced by the WHO. The pathogen quickly became known as the COVID-19 and which subsequently caused a worldwide pandemic. The outbreak of COVID-19 was recognised as a public health emergency of international concern that endangered international public health.2 Epidemics of infectious diseases not only affect the physical health of individuals but also the mental health and well-being of non-infected individuals.³ The prevalence of COVID-19 has increased psychological distress such as anxiety, depression and stress among general populations. 45 Due to the outbreak of COVID-19, a wave of fear and anxiety related to the rate of transmission as well as its complications and mortality emerged internationally.^{6–9} As the virus continued to spread around the world, it brought new stresses, including physical and mental health risks, isolation and loneliness, the closure of schools and businesses, economic vulnerabilities and job losses. 10 11



Consequently, the COVID-19 pandemic caused significant changes in individuals' lifestyles in individual, family and social dimensions. Changes also occurred regarding sexual aspects of individuals' lives, such as the frequency of sexual activity, sexual satisfaction and fertility decisions. 12 13 Measures to control the spread of the disease, such as being forced to stay at home, working from home, keeping children at home, the need to maintain physical distance and limiting physical contact with others, alongside the fear of infection resulted in changes to the dynamics of interpersonal relationships and sexual behaviours among many individuals. 14 15 More specifically, the negative impact of the COVID-19 pandemic on individuals' sexual lives has been reported in countries such as Spain, Italy and Iran. 15 Marital satisfaction and quality of sexual life are two components of sexual life that may be affected by the individual, family and social effects during critical situations such as the COVID-19 pandemic. 16 17

Marital satisfaction refers to the amount and quality of enjoyment and satisfaction among individuals in relation to their married life. 18 Marital satisfaction affects many aspects of individual and social life. 19 20 Stability in marriage and marital satisfaction helps sustain the mental health of the family as well as mental health of the community more generally.²¹ Marital satisfaction is a unique experience, as well as being a relatively stable attitude and characteristic that reflects the overall evaluation of individuals concerning their marital relationship.²² Marital satisfaction also refers to adaptation of an individual's current situation in a marital relationship to his or her expected situation.²³ Sexual quality of life (SQoL) is another sexual component of a couple's life that might have been affected during COVID-19 pandemic.²⁴ In critical situations such as pandemics, changes in economic and social conditions can be associated with a reduction in various aspects of QoL, including sexual aspects.²⁵

Many factors can affect marital satisfaction and sexual lives of couples including physical problems, ²⁶ isolation, ²⁷ depression,²⁸ anxiety,²⁸ fear,²⁷ emotional instability,²⁹ intimate partner violence^{22 30} and quality of sexual relations. 26 31 SQoL is an important concept for assessing short-term and long-term outcomes of sexual problems on individuals' QoL.³² The COVID-19 pandemic can affect the quality of sexual life affecting individuals' mental health and well-being (via increased fear, depression, anxiety and stress) among both infected individuals and the general population. 2 33-36 Moreover, the pandemic may have affected individuals' sex lives in different ways. Some may abstain from sex because they are afraid of getting infected while others may increase the frequency of sexual behaviours with their partner due to spending more time at home with them. 13 During the COVID-19 pandemic, fear, external stresses, psychological health problems and domestic violence increased and affected the processes of the couple's relationship and created more instability for couples. 17 37 Domestic violence (including intimate partner violence, child abuse

and adult abuse) and sexual violence can increase during and after major disasters or crises. 10 38 Similarly, it appears that domestic violence increased due to guarantine and spatial distancing during the COVID-19 outbreak.³⁹ Based on a recent systematic review, it was reported that the fear of COVID-19 influenced sexual relationships and intimacy and reduced marital satisfaction. 40 Turliuc and Candel reported that a combination of an external stressor like fear of COVID-19 with an internal stressor like socioeconomic status can lead to different responses regarding marital satisfaction. They reported that men and women responded differently during a crisis and that couples with lower socioeconomic status are more prone to greater stress and lower levels of marital satisfaction. 41 In another study, Reizer et al reported that psychological distress mediated the association between fear of COVID-19 and couple's marital satisfaction.⁴²

Overall, it appears that fear of COVID-19 can affect couples' relationship and sexual life in different ways through the interaction of different variables. As there is cultural difference in variables affecting marital satisfaction 43 44 and their sexual behaviours, 45 46 assessing the impact of living with the COVID-19 pandemic in different cultures is warranted. The fear of COVID-19 as external stressor and its effect on the marital relationship and SQoL among Iranian women has not been investigated in previous studies. Therefore, this study aimed to determine the mediating role of psychological distress and domestic violence in the association of fear of COVID-19 with marital satisfaction and SQoL among Iranian women of reproductive age.

METHODS

Design and participants

A cross-sectional study was conducted between October and December 2020. The sample comprised 324 married women recruited from urban health centres. The eligibility criteria included being married, living with spouse and having at least 6 months of cohabitation with the spouse. The exclusion criteria included having history of chronic physical or psychological disease, experience of stressful events in the past 3 months, pregnancy and lactation (less than 6 months).

Sample size estimation

The sample size was calculated using R software. By considering (1) two mediating variables, with 95% CI and 90% test power, (2) the two-stage sampling, 5000 bootstraps and (3) the correlation of 0.5 between the predictor variable and the response, the number of participants was determined to be 260. Considering 20% loss of the sample, the sample size estimation indicated 312 participants would be needed.

Sampling procedure

Convenience sampling using the online platform Porsline was used to host the survey. A link to the survey



was sent to midwives working in urban comprehensive health centres. They were asked to send the link to potentially eligible clients. The survey link was active until the required number of participants had been obtained.

Measures

Sociodemographics

The survey included two sections that asked questions concerning participant sociodemographic information (eg, age, age of spouse, duration of marriage, family economic status, occupation, spouse's occupation) and information concerning sexual reproduction (eg, number of children, monthly frequency of sexual intercourse).

Marital satisfaction

A short version of the 115-item ENRICH Marital Satisfaction Questionnaire 47 was used to assess marital satisfaction. More specifically, the 47-item Persian version was used. 48 Items (eg, 'My partner and I understand each other perfectly') are rated on a five-point scale from 1 (completely agree) to 5 (completely disagree). The total score ranges from 47 to 235 and higher scores indicate higher marital satisfaction. Cronbach's α in this study was 0.82.

Sexual quality of life

The 18-item Female Sexual Quality of Life Questionnaire was used to assess sexual functioning and QoL among women ⁴⁹ Items (eg, 'When I think about my sex life, I find it an enjoyable part of my whole life') are rated on a six-point scale from 1 (strongly agree) to 6 (strongly disagree). The total score ranges from 18 to 108 and higher scores indicate a better quality of female sexual life. Cronbach's α in this study was 0.78.

Domestic violence

The four-item Domestic Violence Questionnaire (Hurts, Insults, Threatens and Screams) was used to assess domestic verbal and physical violence. Thems (eg, 'How many times in the last 12 months has your spouse physically harmed you?') are rated on a five-point scale from 1 (never) to 5 (frequently). The total score ranges from 4 to 20 and higher scores indicate greater domestic violence. Cronbach's α in this study was 0.85.

Psychological distress

The 14-item Hospital Depression and Anxiety Scale was used to assess depression (seven items) and anxiety (seven items) among outpatient populations⁵¹ (Persian version^{52 53}). Items (eg, 'Still enjoy the things I used to enjoy') are rated on a four-point scale from 0 (not at all) to 3 (most of the time) with total score of 42. Cronbach's α in this study was 0.86.

Fear of COVID-19

The seven-item fear of COVID-19 Scale (which was originally validated in Persian) was used to assess fear of COVID-19.^{6 54–56} Items (eg, 'I am most afraid of COVID-19') are rated on a five-point scale from 1 (strongly

disagree) to 5 (strongly agree). The total score ranges from 7 to 35 and higher scores indicate greater fear of COVID-19. Cronbach's α in this study was 0.79.

Study measures are provided as online supplemental file.

Patient and public involvement

Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this study.

Statistical analysis

Study data were analysed using SPSS software (V.24). Continuous variables were described with means and SD whereas categorical variables were described with frequencies and percentages. To assess the mediating roles of domestic violence and psychological distress in relationship between fear of COVID-19, SOoL, marital satisfaction, psychological distress and domestic violence, SPSS PROCESS macro was used.⁵⁷ PROCESS macro is a well-documented bootstrapping statistical technique to test the mediation effects between variables. Due to the fact that the study tested multiple mediators (eg, domestic violence, psychological distress), Model 4 was chosen. The direct and indirect effects of the fear of COVID-19 on SQoL and marital satisfaction were estimated comprising a 95% CI using 5000 bootstrapped samples. Moreover, pairwise comparisons between the mediators were calculated using Hayes' macros.⁵⁸

RESULTS

Demographic characteristics

In this study, the mean age of the 324 married Iranian women was 35.05 years (SD=6.60), with a mean duration of marriage of 0.90 years (SD=7.07). The majority of women had university academic education (86.4%) and were employed (64.8%). The majority of participants reported having average family economic status (59.6%) (table 1).

Difference between marital satisfaction and psychological distress based on COVID-19 infection status

The majority of participants reported that they had no history of COVID-19 infection (72.5%). The mean score of marital satisfaction (out of 235) was higher among individuals without COVID-19 history (mean=168.06, SD=35.06) compared with individuals recovered from COVID-19 (mean=162.75, SD=31.68) and individuals suspected of COVID-19 (mean=141.78, SD=35.40). These differences were statistically significant (p=0.049). The mean score of psychological distress was higher among individuals suspected of COVID-19 (mean=17.22, SD=7.12) compared with individuals without COVID-19 history (mean=13.80, SD=7.56) and individuals recovered from COVID-19 (mean=13.11, SD=6.61).

Relationships between fear of COVID-19, marital satisfaction and SQoL

Mean scores of marital satisfaction, fear of COVID-19, experiencing domestic violence, anxiety, depression and

		Range	Mean
Age (in years)		19–45	35.05 (6.60)
Spouse's age (in years)		24–59	38.62 (7.19)
Marriage duration (in year)		1–30	10.90 (7.07)
Gravid		0–7	1.42 (1.20)
No of children		0–3	1.13 (0.81)
Fear of COVID-19		7–35	17.44 (5.95)
Domestic violence (Hurts, Insults,	Threatens and Screams Scale)	4–19	7.0 (3.77)
Psychological distress (Hospital A		0–42	13.73 (7.34)
Sexual quality of life (Female Sexu	· · · · · · · · · · · · · · · · · · ·	23–108	89.22 (19.51)
Sexual activity (times per month)	,	1–30	6.97 (5.42)
Marital satisfaction		47–229	166.03 (34.46)
		Frequency	Percent
Education	Under diploma	6	1.9
	Diploma	38	11.7
	Academic (university)	280	86.4
Spouse's education	Under diploma	17	5.2
	Diploma	49	15.1
	Academic (university)	258	79.6
Job	Housewife	114	35.2
	Employed	210	64.8
Spouse's job	Unemployed	8	2.5
	Employed	306	94.4
	Retired	10	3.1
Economic status	Poor	20	6.2
	Fair	193	59.6
	Good	111	34.3
Separate bedroom	No	52	16.0
	Yes	272	84.0
Living condition	With family	57	17.6
	Independent	267	82.4
Childbirth delivery mode	No delivery	63	19.4
•	Normal delivery	63	19.4
	Caesarean section	198	61.1
Contraception	No	122	37.7
·	Yes	202	62.3
COVID-19 status	No COVID-19 history	235	72.5
	Recovered from COVID-19	80	24.7
	Suspected COVID-19	9	2.8

SQoL are reported in table 1. Pearson correlation coefficient analysis showed there were significant differences between these variables and marital satisfaction (table 2).

The results of the mediation analyses are reported in tables 3 and 4. As table 3 shows, both domestic violence (b $(95\% \, \text{CI}) = -0.75 \, (-1.22 \, \text{to} \, -0.40)$, SE=0.18) and psychological distress (b $(95\% \, \text{CI}) = -0.34 \, (-0.53 \, \text{to} \, -0.19)$, SE=0.09) significantly mediated the relationship between

fear of COVID-19 and SQoL. Moreover, pairwise contrasts of the indirect effects (ie, domestic violence minus psychological distress) included zero (b (95% CI) = 0.42 (-0.002 to 0.83), SE=0.21) indicating that both mediators had equally strong effects.

As table 4 shows, both domestic violence (b (95% CI) = -1.51 (-2.08 to -0.92), SE=0.29) and psychological distress (b (95% CI) = -0.59 (-0.86 to -0.36), SE=0.13)

Variables	SQoL	PD	FoC	DV	MS
SQoL	_	-0.471*	-0.349*	-0.575*	0.682*
PD		_	0.332*	0.381*	-0.543*
FoC			_	0.421*	-0.338*
DV				_	-0.692*
MS					_

significantly mediated the relationship between fear of COVID-19 and marital satisfaction. Moreover, pairwise contrasts of the indirect effects (ie, domestic violence minus psychological distress) indicated that the specific indirect effect via domestic violence was larger than that via psychological distress (b (95% CI) = 0.92 (0.29 to 1.54), SE=0.32).

DISCUSSION

This study investigated the mediating role of psychological distress and domestic violence in the association of fear of COVID-19 with marital satisfaction and SQoL among women of reproductive age. The mean score of marital satisfaction was 168.86 (out of 235). Both domestic violence and psychological distress significantly mediated the relationship between fear of COVID-19 and SQoL with equal strong effects. Also, both domestic violence and psychological distress significantly mediated the relationship between fear of COVID-19 and marital satisfaction via a larger effect of domestic violence compared with psychological distress.

The mean score of marital satisfaction was 166.03 (out of 235). In the study by Mousavi, the results also showed that the home quarantine in COVID-19 pandemic does not have a significant effect on marital satisfaction.⁵⁹ In previous Iranian studies, the mean score (out of 235) for marital satisfaction was 167.64⁶⁰ and 185.51.⁶¹ Despite the changes in the living conditions of individuals during the COVID-19 pandemic, marital satisfaction does not appear to have increased or decreased significantly in comparison to previous Iranian studies. It may be that the COVID-19 pandemic has a greater influence on

Table 3 Models of the effect of fear of COVID-19 on sexual quality of life with psychological distress and domestic violence as mediators

	Unstand. coeff.	SE or (Bootstrapping SE)	t-value	p- value	Bootstrapping LLC; ULC
Total effect of fear of COVID-19 on sexual quality of life	-1.309	0.201	-6.333	<0.001	-1.716 to -0.903
Direct effect of fear of COVID-19 on sexual quality of life	-0.223	0.192	-1.165	0.245	-0.600 to 0.154
Direct effect of psychological distress on sexual quality of life	-0.855	0.148	-5.767	<0.001	-1.147 to -0.563
Direct effect of domestic violence on sexual quality of life	-2.626	0.303	-8.663	<0.001	-3.223 to -2.030
Direct effect of fear of COVID-19 on mediators					
Psychological distress	0.391	0.068	5.721	<0.001	0.257 to 0.526
Domestic violence	0.286	0.033	8.551	<0.001	0.220 to 0.352
Indirect effect of fear of COVID-19 on sexual quality of life					
Psychological distress	-0.335	(0.088)	-	_	-0.526 to -0.186
Domestic violence	-0.751	(0.183)	-	_	-1.122 to -0.395
(C1)	0.417	(0.209)	_	_	-0.002 to 0.825

Age, spouse age, marriage duration, education and spouse education, and COVID-19 situation were controlled for in the model. C1, pairwise comparison psychological distress versus domestic violence; LLC, lower limit in 95% CI; ULC, upper limit in 95% CI; Unstand. coeff, unstandardised coefficient.

Table 4 Models of the effect of fear of COVID-19 on marital satisfaction with psychological distress and domestic violence as mediators

	Unstand. coeff.	SE or (bootstrapping SE)	t-value	p- value	Bootstrapping LLC; ULC
Total effect of fear of COVID-19 on marital satisfaction	-1.91	0.32	-6.032	<0.001	-2.534 to -1.288
Direct effect of fear of COVID-19 on marital satisfaction	0.197	0.247	0.799	0.425	-0.289 to 0.683
Direct effect of psychological distress on marital satisfaction	-1.518	0.191	-7.94	<0.001	-1.894 to -1.142
Direct effect of domestic violence on marital satisfaction	-5.293	0.390	-13.553	<0.001	-6.061 to -4.524
Direct effect of fear of COVID-19 on mediators					
Psychological distress	0.391	0.068	5.721	<0.001	0.257 to 0.526
Domestic violence	0.286	0.033	8.551	<0.001	0.220 to 0.352
Indirect effect of fear of COVID-19 on marital satisfaction					
Psychological distress	-0.594	(0.128)	_	_	-0.855 to -0.356
Domestic violence	-1.514	(0.294)	_	_	-2.080 to -0.923
(C1)	0.920	(0.318)	-	-	0.290 to 1.538

Age, spouse age, marriage duration, education and spouse education, and COVID-19 situation were controlled for in the model. (C1), pairwise comparison of psychological distress versus domestic violence; LLC, lower limit in 95% CI; ULC, upper limit in 95% CI; Unstand. coeff. unstandardised coefficient.

individuals' social relationships rather than their interpersonal and marital relationships, especially as married couples are likely to have spent more time with each other during the pandemic than time spent with friends and work colleagues.

There was a marginal significant difference in mean scores for marital satisfaction among different groups based on COVID-19 status (without COVID-19 history=168.07, recovered from COVID-19=162.75 and suspected for COVID-19 individuals=141.78, p=0.049). Marital satisfaction appeared to be more affected and reduced among individuals suspected of having COVID-19. Despite the point that due to low the sample size in the suspected COVID-19 group (n=9), it makes it difficult to interpret the comparisons; but marital satisfaction was negatively associated with psychological distress (person correlation coefficient of -0.543). Those individuals suspected of COVID-19 experienced a higher mean score of psychological distress (17.22) compared with individuals without COVID-19 history (13.80) and individuals recovered from COVID-19 (13.11). This point was confirmed in the meditational analysis. Psychological distress and domestic violence significantly mediated the relationship between fear of COVID-19 and marital satisfaction via a larger effect of domestic violence compared with psychological distress. Experiencing domestic violence directly associated with lower marital satisfaction among females during the COVID-19 pandemic. Experiencing domestic violence was inversely associated with marital satisfaction, which is in line with previous findings.⁶²

As aforementioned, during the COVID-19 pandemic and due to imposed lockdowns, many couples will have spent more time together at home. For some couples whose interpersonal relationships increased disruption, spending more time together may have increased the likelihood of domestic violence among such couples. Domestic violence negatively affects couples, especially women's marital satisfaction. ¹⁰ ³⁸ ³⁹ ^{63–66} Consistent with the findings of this study, it has been found that increased depression was directly inversely associated with marital satisfaction. Mental health is one of the most important factors in success and continuity of marriage. ⁶⁷ Experiencing a mental health disorder reduces the likelihood of satisfactory relationships between individuals before ^{68–71} and during the COVID-19 pandemic. ⁴¹ ⁷²

Quality of sexual life was directly associated with marital satisfaction and increased quality of sexual life was associated with higher marital satisfaction. This is in line with previous studies. Sexual factors have a positive effect on couples' marital satisfaction. Unsatisfactory (or lack of) sexual intercourse can lead to feelings of frustration, burn-out and insecurity, as well as endangering individuals' mental health by disrupting family life. However, in an Indian study during the COVID-19 pandemic, the frequency of sexual intercourse, sexual satisfaction and the quality of sexual life among women increased during this period. Domestic violence and psychological distress significantly mediated the relationship between fear of COVID-19 and SQoL with equally strong effects. In this study, fear of COVID-19 was significantly associated



with SOoL. Inconsistent results regarding the association between fear of COVID-19 and SQoL have been reported in previous studies. While there was a negative association between the fear of COVID-19 and female's SQoL during the pandemic in one study⁷⁶ (the same as this study), in some of the previous studies, fear of COVID-19 was not significantly associated with SOoL. 24 77 This difference might be due to different sampling time because the COVID-19 pandemic has had both peak and plateau periods of disease transition in different countries. To the best of the present authors' knowledge, no previous study has investigated the relationship of SQOL and fear of COVID-19 through the mediating role of domestic violence and psychological distress during the COVID-19 pandemic. Similar to this study's finding, Sheikhan et al's study conducted before the pandemic found that sexual violence was the most significant predictor of SQoL among females and that perceived stress indirectly effected SQoL.⁷⁸

Strengths and limitations

To the best of the present authors' knowledge, this study is one of the first to investigate the mediating roles of psychological distress and domestic violence in the association of fear of COVID-19 with marital satisfaction and SQoL among Iranian women of reproductive age. While the appropriate sample size and the use of structural equation modelling in the mediation analysis could be considered as strengths of current study, there are a number of limitations. The main limitations of the study were the cross-sectional design (which meant that the directionality between variables could not be determined), the reliance on self-report data (which are subject to well-known methods biases such as social desirability), the Iranian female sample (which meant the findings cannot be generalised to women in other countries), and the convenience sampling method (which meant the sample was not nationally representative of Iranian women). Another limitation was that the research was conducted only in an urban area. These problems could be overcome in future research by recruiting larger and more representative samples, and by employing longitudinal study designs.

CONCLUSION

This study showed that the presence of positive or suspected COVID-19 infection versus healthy status is associated with decreased marital satisfaction. Experiencing lower domestic violence, increased quality of sexual life and lower depression significantly predicted higher marital satisfaction among married Iranian women during the COVID-19 pandemic. It appears that the fear of COVID-19 can indirectly affect a female's marital satisfaction by affecting their psychological health.

Author affiliations

¹Social Determinants of Health Research Center, Research Institute for Prevention of Non-communicable Diseases, Qazvin University of Medical Sciences, Qazvin, Iran ²Psychology Department, Nottingham Trent University, Nottingham, UK

³Department of Nursing,School of Health and Welfare, Jönköping University, Jönköping, Sweden

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ORCID iDs

Zainab Alimoradi http://orcid.org/0000-0001-5327-2411 Mark D Griffiths http://orcid.org/0000-0001-8880-6524 Amir H Pakpour http://orcid.org/0000-0002-8798-5345

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Demographic C	haracteristics Question	onnaire	
1) Age:	years		
2) Spouse age:	years		
3) Duration of r	narried life:	years	
4) What is your	education level?		
Under diploma	Diploma	Academic education	
5) What is your	spouse's education le	vel?	
Under diploma	Diploma	Academic education	
6) What is your	spouse's job status?		
Unemployed	Employed	Retired	
7) What is your	job?		
Housekeeper	Employed		
8) How would y	ou assess the financia	I situation of your family?	
Weak	Moderate	Average Good	
9) Independent	bedroom:		
Yes	No		
10) Living condi	tions:		
Independent	With	your family or spouse family	
11) Frequency (of sexual intercourse d	luring the month	
12) Number of	pregnancies		
13) Number of	living children		
14) Method of	delivery		
15) Method of	contraception		
16) How is your	condition in terms of	Covid-19?	
Infected and re	covered	Infected and under treatmen	it
Suspected		Non-infected	

	ENRICH I	Marital Sati	sfaction (Questionnaire		
		Strongly	Agree	Neither agree	Disagree	completely
		agree		nor disagree		disagree
1	My wife and I fully understand					
_	each other.					
2	My wife understands my mood					
_	and adapts to it					
3	I have never regretted my					
	relationship with my wife even for a moment.					
4	I am not satisfied with my wife's					
4	personality traits and habits.					
5	We are happy that we are					
3	fulfilling our responsibilities					
	well in our life together.					
6	My relationship with my wife is					
١	not satisfactory and I feel she					
	does not understand me.					
7	I am very pleased with the way					
-	decisions are made about how					
	to resolve disputes.					
8	I am not satisfied with the					
	economic situation of the					
	family and the way decisions					
	are made about it.					
9	I am very happy with the way I					
	plan to spend my free time and					
	leisure time with my wife.					
10	I am very pleased with the way I					
	express my love and feelings					
	and have sex with my wife.					
11	I am not satisfied with the way I					
	and my wife play the role and					
	responsibility as "parents".					
12	Sometimes my wife is not					
	trustworthy and always follows					
	her own policy.					
13	My wife sometimes says things					
	that cause humiliation.					
14	When discussing problems with					
	my spouse, I often feel that he					
4-	or she does not understand me.					
15	We have trouble making					
10	financial decisions.					
16	It bothers me that I cannot					
	spend money without my wife's					
	permission.			1		

	ENRICH I	Marital Sati	sfaction C	Questionnaire		
		Strongly	Agree	Neither agree	Disagree	completely
		agree		nor disagree		disagree
17	I will not be happy until my wife					
	is with me.					
18	I'm upset that my spouse is					
	unfairly accepting or rejecting					
10	intimacy. Disagreement over how far we					
19	should go to our children has					
	become a problem for us.					
20	I feel that our parents create					
20	problems in our married life.					
21	My wife and I disagree on how					
	to practice our religious beliefs.					
22	Sometimes my wife is very					
	stubborn.					
23	Sometimes I'm afraid to ask my					
	spouse for help.					
24	Sometimes we have serious					
	arguments about minor issues.					
25	I am very satisfied with the way					
	decisions are made about our					
26	savings.					
26	My wife and I seem to be					
	equally interested in parties and social activities.					
27	I am satisfied with the amount					
	of love and affection (before					
	intimacy) by my wife.					
28	My wife and I agree on how to					
	control our children's behavior.					
29	We spend enough time with					
	our relatives and friends.					
30	I believe that we have a					
	difference of opinion in our					
	married life.					
31	My wife's being late for home					
22	bothers me.					
32	I wish my wife was more willing					
33	to share her feelings with me. I do everything I can to avoid					
33	my wife's quarrels.					
34	My wife and I both know the					
	main evils and as a result they					
	are not a serious problem for					
	us.					
				1	1	l

	ENRICH I	Marital Sati	sfaction (Questionnaire		
		Strongly	Agree	Neither agree	Disagree	completely
		agree		nor disagree		disagree
35	I do not think my wife has					
	enough time or energy to have					
	fun and spend her free time					
	with me.					
36	We are looking for ways to					
	make our sex life more					
	interesting and enjoyable.					
37	Children seem to be the main					
	cause of problems in our					
	relationships.					
38	I do not enjoy spending time					
	with some of my wife's					
	relatives.					
39	My wife and I do not agree with					
	some of our religious teachings.					
40	Sometimes my wife is very					
	tyrannical.					
41	Sometimes I believe that					
	everything my wife says is difficult for me.					
42	Sometimes I think that the					
42						
	quarrels between me and my wife continue and will not end.					
43	I'm worried that my wife does					
45	not have enough personal					
	interests and hobbies.					
44	I feel completely comfortable					
	talking to my wife about sex.					
45	We have seldom had the					
	opportunity to be together as a					
	couple since we had children.					
46	My wife spends a lot of time					
.	with friends and relatives.					
47	My wife and I feel limited					
''	because of our religious beliefs.					

		Sexual Qu	ality of Li	fe Questionn	aire		
		Completely	Agree	Somewhat	Somewhat	Disagree	Completely
		Agree		Agree	Disagree		Disagree
1	When I think about my						
	sex life, I find it an						
	enjoyable part of my						
_	whole life.						
2	When I think about my						
	sex life, I feel frustrated and						
	frustrated						
3	I feel depressed when						
	I think about my sex						
	life						
4	When I think about my						
	sex life, I feel that I						
	was not the size of a						
	woman.						
5	I feel good about						
	myself						
6	when I think about my						
	sex life						
	As a sexual partner, I						
	have lost my self-						
	confidence						
7	I feel anxious when I						
	think about my sex life						
8	I feel angry when I						
	think about my sex life						
9	When I think about my						
	sex life, I feel close and						
	intimate with my						
10	spouse. I'm worried about the						
10	future of my sex life						
11	I have lost the						
	pleasure of sexual						
	activity						
12	I feel embarrassed						
	when I think about my						
	sex life.						
13	When I think about my						
	sex life, I feel like I can						
	talk to my wife about						
	sex.						
14	I try to avoid sexual						
	activity						

		Sexual Qu	ality of Li	fe Questionn	aire		
		Completely Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Completely Disagree
15	I feel guilty when I think about my sex life				-		
16	When I think about my sex life, I worry that my spouse will feel harassed or estranged from me.						
17	When I think about my sex life, I feel like I have lost something.						
18	When I think about my sex life, I am satisfied with the number of times I have had sex						

Hospital Depression and Anxiety Scale (HADS)

1) Have you had any stress in the last week?

Never Sometimes Often Most of the time

2) Do you still enjoy things you used to?

Absolutely Very low Not as much as before Absolutely as before

3) Do you feel worried about the possibility of something bad happening to you?

Not at all a little but I do not worry Yes but not much Yes 100% and very bad

4) Can you just laugh and see the fun part?

not at all yes but very little yes but less than before yes exactly like before

5) Do worrying thoughts cross your mind?

Sometimes (very low) sometimes most of the time almost always (but not always)

6) Do you feel cheerful?

Most of the time Sometimes Rarely Not at all

7) Can you sit comfortably and feel comfortable?

Absolutely Rarely Often Yes 100%

8) Do you feel that your condition is getting worse day by day?

Basically Sometimes Usually Always

9) Do you feel fear or something like anxiety?

Yes, Almost always Usually Sometimes Not at all

10) Are you less interested in maintaining your appearance?

Not at all Some Compared to before yes Yes 100%

11) Do you feel uncomfortable and restless?

Not at all Not too much Too much Yes 100%

12) Do you deal with the things around you and everyday events with a good feeling (pleasure)?

Not at all Yes, but definitely less than before Yes, but less than before Yes, just like always

13) Do you suddenly feel scared?

Basically Yes very little Yes, most of the time Yes, almost always

14) Do you still enjoy reading a good book or radio and television programs?

Yes, very rare Yes, very low Yes, sometimes Yes, often

	HITS Domestic Violence Screening Questionnaire					
		Never	Rarely	Sometimes	Relatively high	High
1	How many times in the last 12 months has your spouse physically harmed you?					
2	How many times in the last 12 months has he insulted or slandered you?					
3	How many times in the last 12 months have you been threatened with bodily harm?					
4	How many times have you shouted or cursed in the last 12 months?					

	Fear of COVID-19 Scale						
		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
1	I am most afraid of COVID-19						
2	It makes me uncomfortable to think about COVID-19						
3	My hands become clammy when I think about COVID-19						
4	I'm afraid of losing my life because of COVID-19						
5	When watching news and stories about COVID-19 on social media, I become nervous or anxious.						
6	I cannot sleep because I'm worrying about getting COVID-19						
7	My heart races or palpitates when I think about getting COVID-19						