Archives of Advances
in Biosciences

Original Article:

General Health Subcomponents and Marital Satisfaction: Examining a Correlation during COVID-19

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Cite this article as: Raesi R, Moradi M, Saghari S, Orouei S, Movahedi Rudi A, Hushmandi K, Sheikh Beig goharrizi M A, Gholami M H. General Health Subcomponents and Marital Satisfaction: Examining a Correlation during COVID-19. Archives of Advances in Biosciences. 2022; 13(2):E37600. https://doi.org/10.22037/aab.v13i1.37600

https://journals.sbmu.ac.ir/aab/article/view/37600

Article info:
Received: 09 Feb 2022
Accepted: 21 Apr 2022
Published: 13 Jun 2022

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Abstract

Introduction: COVID-19 is known as a general health threat. General health can play a significant role in marital adjustment and satisfaction and thus the strength of the family foundation. The current study aimed to determine the correlation between families' general health subcomponents and marital satisfaction during the COVID-19 pandemic in Khaf, Iran.

Materials and Methods: This descriptive-analytical study was conducted on 90 married people using the convenience sampling. The study instruments involved a demographics form, a general health questionnaire, and a marital satisfaction questionnaire. Data analyses were performed in SPSS statistical software ver. 22, using the Kolmogorov-Smirnov, Pearson correlation coefficient, multiple regression, independent t-test, one-way analysis of variance, and Tukey's post hoc tests. The level of significance was set at $p < .05$.

Results: Among the general health subcomponents, the highest mean score belonged to depression (12.80 ± 4.65) and the lowest to social dysfunction (12.04 ± 4.24). The general health score was 49.70 ± 17.35, and the marital satisfaction mean score was 123.13 ± 34.02. Marital satisfaction was negatively and significantly associated with general health ($r = -.71$) as well as the subcomponents of somatic symptoms ($r = -.64$), anxiety ($r = -.71$), social dysfunction ($r = -.66$), and depression ($-.067$) ($p < .001$).

Conclusion: As COVID-19 depression and anxiety have the most significant impact on individuals' general health and marital satisfaction, healthcare managers and policymakers are advised to consider solutions to these disorders in families. As such, they can contribute to spouses' general health and marital satisfaction and thus strengthen the family foundation.

Keywords: COVID-19, Family, General health, Marital life satisfaction,

1. Introduction

In December 2019 a new coronavirus species which was potentially able to infect humans was identified in the Chinese city of Wuhan, Hubei Province [1]. It was noticed that people were developing pneumonia for no apparent reason and the existing treatments failed to be effectiv. The virus became known as COVID-19 [2].

Coronaviruses are a large group of viruses in the family coronaviradae, ranging from the common cold virus to the cause of more severe illnesses such as SARS, MERS, and COVID-19 [3]. COVID-19 epidemic has been more widespread than the pandemics caused by previous human coronaviruses, which indicates the high transmission rate of this virus [2]. On January 30, 2020, the World Health Organization declared this epidemic a public health emergency of international concern [4]. In addition to posing many challenges to society and service providers in the healthcare system, COVID-19 has also brought about changes in familial relationships of individuals [2]. These challenges can impair one's acceptance and proper fulfillment of family roles [5].

Family is the fundamental institution and foundation of the society. Family should be a source of security and peace to its members, satisfyinfg their emotional needs so that they can achieve the desired growth and prosperity. The less cohesive and coordinated the family members are, the more likely they are to develop anxiety disorders and depression symptoms, and the less satisfied they will be at that base. Upon the advancement of knowledge and technology, the inevitable involvement of members of society in various competitive spheres, and the active participation of women in economic affairs, among others [6], the crowded and low-demanding traditional family base has turned into a demanding and stressful center [7].

The role and position of spouses and children have acquired a new meaning [8]. In such an environment, family members try to change other members based on their own knowledge and worldview. However, because they infuse intense emotions and excitement to achieve this goal, they often resort to negative strategies such as nagging, criticizing, and withdrawing with anger [9]. This type of interaction impairs the couple's sense of psychological security and attachment. The most common consequences of his detrimental effect are the appearance of depression and anxiety disorders [10], which can harm the couple's general health, reduce marital satisfaction and life, and even destroy married life [11].

Marital satisfaction denotes the extent to which one's expectations of married life match one's actual experience of married life. Marital satisfaction is a positive and enjoyable attitude of a couple to different aspects of a marital relationship [12].

Given the importance of marital relationships, special attention has been directed worldwide to marital satisfaction. Pioneers studying marital dissatisfaction have developed two perspectives, still accepted, on the formation of this phenomenon. The first view, which emphasizes the role of the individual in the development of marital dissatisfaction, maintains that marital problems arise from the lack of mental health in at least one of the couples. According to the second view, which emphasizes the role of interpersonal relationships and interaction between spouses, marital problems arise from the pattern of interpersonal interactions [13].

According to the World Health Organization, health is a multidimensional notion. Notably, the different dimensions of health and disease can affect and be affected by those of the other. Therefore, measures taken to promote health must consider all aspects of one's health [i.e., somatic, mental, social, and spiritual) [14]. Human health is essential for achieving peace and security, depending on the highest level of cooperation between people and governments. Morteover, according to the Statute of the World Health Organization, the accessibility to the highest attainable health standards is one of the most fundamental rights of every human being, regardless of race, religion, political beliefs, economic status, or social status [15].

Sudden outbreaks of disease can have profound effects on general health. The larger the scale of the disease, the greater the impacts. Epidemics cause fear which can continue even after the condition is remedied. Improper control of COVID-19 is linked with hospitalization, high prevalence, anxiety, and poor quality of life. COVID-19 and its complications impose an economic burden, reduce the quality of psychological life, and disrupt social and family relationships. Fear of illness, its consequences, death, feelings of helplessness, uncertainty about the future, anxiety, sadness, anger, reaction to grief, economic worries, and stress in interpersonal and family relationships are among the psychological, social, and family stresses during the COVID-19 pandemic [16].

COVID-19 is a public health hazard with a widespread prevalence and is recognized as a health threat worldwide. The general health of individuals can play an important role in marital adjustment and satisfaction and thus the strength of the family foundation. However, no studies have so far examined general health and its relationship with marital

satisfaction during the COVID-19. Therefore, this study aims to determine the correlation between general health subcomponents and the marital satisfaction of families during the COVID-19 pandemic in Khaf.

2. Materials and Methods

This is a cross-sectional descriptive-analytical study that was performed on 90 married people. The statistical population included all couples living in the city of Khaf in 2022. A similar study was cited to determine the sample size [17]. Thus, due to the large statistical population and the lack of access to a list of them, 45 couples (90 people) were selected through convenience sampling. In the next step, 9 couples were asked to invite four couples they knew to participate in the study, and thus the sample size was determined. Inclusion criteria were consent to participate in the study, married people aged 25 to 50 years, access to a smartphone to receive the electronic questionnaire link, literacy, and at least three years of married life. The exclusion criterion was the submission of an incomplete questionnaire.

The data collection tool was a three-part electronic questionnaire comprising a demographics form, the general health questionnaire, and the marital satisfaction questionnaire. The link to the electronic questionnaire was sent to the participants by the researcher and the data were collected in this way. *General Health Questionnaire (GHQ-28)*: Developed by Goldberg, this questionnaire is one of the most well-known tools for screening mental disorders and is available in 12-, 28-, 30-, and 60-item formats. In this research, its 28-item version was employed. general health subcomponents include Somatic symptoms, anxiety, depression and social dysfunction that are used to detect and identify mental disorders. The questionnaire includes four subcomponents, each of which contains seven items. Items 1-7 relate to the somatic symptoms and general health status. Items 8-14 assess anxiety, 15-21 address social dysfunction, and 22-28 concern the depression subcomponent. This questionnaire has been widely used in various settings and has acceptable validity and reliability in scientific communities.

Regarding the validity of this questionnaire, we can refer to Taghavi's study, whose results showed that the 28-item version was qualified for use in psychological research and clinical activities. The reliability of this questionnaire was also tested in Taghavi's study, where its Cronbach's alpha coefficient was reported to be .9 [18]. The reliability of this questionnaire was also calculated using the test-retest method, yielding a Cronbach's alpha coefficient of .87. The items are scored on a four-point Likert scale (0, 1, 2, 3), and a respondent's score may range from 0 to 84, where a lower score indicates better mental health and vice versa. In the GHQ, the cut-off point in each of its subcomponents is 6 and for the total questionnaire is 22. In other words, a score of 6 or higher in each subcomponent and a total score of 22 or higher indicate pathological symptoms [19].

ENRICH Marital Satisfaction Scale (short form): The scale's short form (47-item) was employed in this study. The scale assesses potentially problematic areas or identifies the marital relationship's strengths. Motamedin (2004) used the Marital Adjustment Questionnaire to evaluate the construct validity of ENRICH Marital Satisfaction Scale and obtained a correlation coefficient of .65 ($p < .01$) [20]. In Siraj et al.'s study, its reliability was calculated via the internal consistency method, yielding a Cronbach's alpha coefficient of .85 [21]. Each item holds five options: strongly agree, moderately disagree, neither agree nor disagree, moderately agree, and strongly agree, which are scored 1 to 5, respectively. Items 4, 6, 8, 11-16, 18-24, 30-33, 37-42, and 45-47 are scored reversely. Scores between 47 and 84 indicate severe dissatisfaction, scores between 85 and 122 suggest relative dissatisfaction, scores between 123 and 160 show moderate satisfaction, scores between 161 and 198 indicate high satisfaction, and scores between 199 and 235 indicate very high satisfaction [21].

In order to observe ethical considerations, all participants entered the study with voluntary consent and consent, and were assured of the principles of confidentiality and confidentiality of the participants' identities. They were told that all information would remain confidential and the results would be reported in general.

The data were analyzed using SPSS-22 statistical software. First, the normal distribution of data was evaluated using the Kolmogorov-Smirnov test. Given the normal distribution of the data, Pearson correlation coefficient, multiple regression, independent t-test, one-way analysis of variance (ANOVA), and the Tukey post hoc test were applied to analyze the data. The significance level was set at $p < .05$.

3. Results

In this study, 90 married people in Khaf were studied, of whom 31 (34.4%) were men and 59 (65.6%) were women. The highest frequency concerned people above 40 years (32.2%), holders of university degrees

(48.9%), housewives (42.2%), and those with a monthly income level between 5 and 10 million tomans (45.6%) (Table 1).

Based on the results, the highest mean score among the general health subcomponents belonged to depression (12.80 ± 4.65) and the lowest to social dysfunction (12.04 ± 4.24). The overall general health score was 49.70 ± 17.35, and the mean score of marital satisfaction was 123.13 ± 34.02. The research data were found to have a normal distribution on two grounds. First, the skewness and elongation coefficients for all variables were in the range of -2 to 2. Second, the significance level of the Kolmogorov-Smirnov test for all variables was above .05 (Table 2).

According to the Pearson correlation results, marital satisfaction was negatively and significantly linked with general health score (r = -.71). Indeed, marital satisfaction had a significantly negative association with the subcomponents of somatic symptoms (r = -.64), anxiety (r = -.71), social dysfunction (r = -.66), and depression (r = -.67) (p <.001). Given that a higher score in general health indicates a lower level of general health, a positive relationship is established between general health and marital satisfaction.

Multiple linear regression was used to investigate the effect of general health subcomponents and demographic variables on marital satisfaction. Dumping coding was applied to enter qualitative variables (gender, occupation, education level, and monthly income level) into the model. General health subcomponents and age were introduced to the model quantitatively. Accordingly, marital satisfaction was found to have a significantly negative relationship with anxiety (p = .006) and monthly income level (5-10 million tomans per month) (p = .03). Moreover, marital satisfaction was positively and significantly linked with being a housewife (p = .01) and holding a high school education level (p = .02) (Table 3).

Table 1. Demographic characteristics of the participants

Variable		Frequency	Percent
Gender	Men	31	34.5
	Women	59	65.6
Age (year)	≤ 30	24	26.7
	31-35	20	22.2
	36-40	17	18.9
	> 40	29	32.2
Education	Primary or secondary	20	22.2
	High school	26	28.9
	University	44	48.9
Occupation	Healthcare employee	12	13.3
	Non-healthcare employee	16	17.8
	Housewife	38	42.2
	Self-employed	24	26.7
Income (million tomans)	≤ 5	32	35.6
	5-10	41	45.6
	> 10	17	18.9

Table 2. Descriptive indicators and the results of Kolmogorov-Smirnov test to check the normality of data distribution

Variable	Mean	Standard deviation	Skewness	Elongation	Kolmogorov-Smirnov test z statistic	p-value
Somatic symptoms	12.19	4.94	-0.36	-1.18	1.32	0.06
Anxiety	12.67	4.64	-0.36	-.99	1.19	0.12
Social dysfunction	12.04	4.24	0.31	-1.12	1.28	0.08
Depression	12.80	4.65	-0.29	-1.14	1.31	0.06
Overall general health*	49.70	17.35	-0.31	-1.28	1.32	0.06
Marital satisfaction	123.13	34.02	0.15	-0.60	0.88	0.43

*: A higher score in general health indicates lower general health and vice versa.

Table 3. Regression coefficients related to the effect of general health subcomponents and demographic variables on marital satisfaction

Variable		Non-standard coefficient		Standard coefficient	T value	Significance level	Correlation coefficient	r^2
		B value	Standard error	β value				
Fixed		166.39	24.98		6.66	<0.001		
Somatic symptoms		0.35	1.11	0.05	0.32	0.75	0.64	0.41
Anxiety		-3.26	1.16	-0.44	2.80	0.006	0.72	0.51
Social dysfunction		-2.01	1.41	-0.25	1.43	0.16	0.73	0.51
Depression		0.16	1.45	0.02	0.11	0.91	0.73	0.51
Age		-0.09	0.45	-0.02	0.19	0.85	0.73	0.50
Gender		-0.97	6.58	-0.01	0.15	0.88	0.74	0.51
Occupation	Non-healthcare employees	1.96	9.54	0.02	0.21	0.84	0.76	0.53
	Housewife	25.62	10.19	0.37	2.52	0.01		
	Self-employed	11.43	9.64	0.15	1.19	0.24		
Education	High school	19.00	7.77	0.26	2.44	0.02	0.77	0.54
	University	13.74	7.99	0.20	1.72	0.09		
Income (million tomans)	5-10	-15.16	6.66	-0.22	2.28	0.03	0.80	0.57
	> 10	-0.12	9.29	-0.001	0.01	0.99		

As the results in Table 4 reveal, the mean scores of general health and marital satisfaction in the subjects were significantly different in terms of gender, age, level of education, occupation, and monthly income ($p < .05$). The mean score of general health in men was significantly higher than that of women ($p = .01$). In contrast, the mean score of marital satisfaction in women was significantly higher than in men $p = .006$). The mean score of general health was significantly higher in age groups above 36 years than younger ones. The mean score of marital satisfaction was significantly lower in people older than 40 years than people aged 30 years and younger or those aged 31 to 35 years ($p < .05$).

The mean score of general health in people with a university education level was significantly lower than people with a primary or secondary education level. Similarly, the mean score of marital satisfaction in people with university education was significantly higher than those with a primary or secondary degree. The mean score of general health in health care employees was significantly higher than in other occupational groups, and the mean score of marital satisfaction in healthcare employees was significantly lower than in housewives and self-employed individuals. The mean score of general health was significantly higher in people with a monthly income level of 5 million tomans and less. Lastly, people with a monthly income level of more than 10 million tomans had a higher marital satisfaction mean score than other people studied.

Table 4. Comparison of the mean score of general health and marital satisfaction among the participants according to demographic characteristics

Variable		General health Mean ± SD	Marital satisfaction Mean ± SD
Gender	Men	55/84±18/14	109/61±39/26
	Women	46/47±16/16	130/24±28/80
Independent t-test p-value		0.01	0.006
Age (years)	≤ 30	38/71±13/65	136/17±27/55
	31-35	41/45±16/82	132/35±36/49
	36-40	55/65±19/46	123/76±34/68
	> 40	61/00±9/46	105/62±30/65
ANOVA test p-value		< 0.001	0.004
Education	Primary or secondary	56/90±15/75	106/90±32/06

Table 4. Continued

	High school	52/12±17/52	122/96±32/21
	University	45/00±16/87	130/61±34/03
ANOVA test p-value		0.03	0.03
Occupation	Healthcare employee	68/17±5/77	90/58±28/46
	Non-healthcare employee	51/13±14/38	112/25±26/04
	Housewife	44/10±15/82	137/24±26/15
	Self-employed	48/21±19/50	124/33±39/78
ANOVA test p-value		< 0.001	< 0.001
Income (million tomans)	≤ 5	58/44±11/94	114/72±29/41
	5-10	48/00±17/72	121/02±32/86
	> 10	37/35±17/07	144/06±37/99
ANOVA test p-value		< 0.001	0.01

*: A higher score in general health indicates lower general health and vice versa.

4. Discussion

Marital satisfaction is a personal experience in a marriage. As such, only those involved in it can evaluate it in response to the extent to which they feel satisfied. Many factors affect marital satisfaction. The present study aimed to investigate the correlation between general health subcomponents and the marital satisfaction of families during the COVID-19 pandemic in the city of Khaf. The results showed that marital satisfaction is negatively and significantly associated with the general health subcomponent of anxiety (p = .006) and monthly income (5-10 million tomans per month) (p = .03). On the other hand, marital satisfaction was positively linked with being a housewife (p = .01) and holding a high school diploma (p = .02).

A significant relationship was found between general health and marital satisfaction in the present study. Along with our findings, the findings of Pato and Taheri (2008), Amiri and Khodabandehloo (2008), and Bradbury et al. (2003) show that mental well-being and mental health have a significantly positive relationship with life satisfaction and quality of marital relationships [22-24]. However, our findings do not comply with the results from Bakhshaish et al.'s (2009) study, which failed to identify a significant relationship between marital satisfaction and general health [17].

Our study revealed that anxiety, a subcomponent of general health, is significantly associated with marital satisfaction. The results of Banaian et al.'s research showed a significant relationship between mental health and marital satisfaction in different dimensions, with the most significant correlation being between depression and marital satisfaction [25]. In Whisman's study, anxiety and depression were significantly linked with marital satisfaction in American couples [26]. Andrew and Ronald's study also demonstrated a relationship between mental health and marital satisfaction [27, 28]. People with poor mental health cannot resolve their conflicts properly and do not have sufficient endurance in the face of the inevitable failures of life. In marital relations, the couple establishes a very close and long relationship. Marriage and marital relations are one of the most critical issues in terms of health, and mental disorders and general health widely affect various aspects of marital life. Therefore, a low level of general health in individuals leads to lower levels of marital satisfaction [29].

According to multivariate regression results regarding contributing factors to marital satisfaction, a significantly negative relationship runs between low income and marital satisfaction. Sorokowski's (2017) examination [30] of data from 33 countries on factors contributing to marital satisfaction reveals that low income or financial problems threaten married life quality and stability. By reducing anxiety and providing better access to resources and facilities, optimal income levels and economic prosperity create conditions that lead to more stable relationships and higher marital satisfaction [31].

Studies indicate that marital satisfaction is linked significantly with income and economic status so that the level of marital satisfaction increases with income [32]. Thus, employment has a significant impact on the strength of marital relationships. Low income and job insecurity are associated with low marital satisfaction. When couples are worried about money and are affected by anxiety, marital satisfaction will also be low [33].

Other results showed that people with a high school diploma reported higher marital satisfaction than those with a university degree. Janssen et al. (1998) has found that women with higher education levels have higher rates of unstable marriages [34]. Also, the study

of Bakhshayesh and Mortazavi (2009) [17] indicates that couples with lower education have better marital satisfaction, which is consistent with the our results. However, the results of Banaian [25] and Mir Hosseini's [32] studies suggest a significant relationship between education level and women's marital satisfaction, where marital satisfaction increases with education. This finding complies with the results of our study.

On the other hand, Bani Jamali and Mohammadzadeh (2005) did not find a significant relationship between marital satisfaction and education [35]. Therefore, despite previous research findings, we may reject the hypothesis that "higher education levels lead to an increased marital satisfaction". The reason it is rejected may be that the mere education level, however high it might be, cannot lead to a higher cultural level and be a factor for adjustment in marital relationships. It might be the case that people's expectations may rise as they become more literate, which can be detrimental to marital relationships [36].

According to our results, marital satisfaction was reported more in women than men. Previous research findings indicate differences between women and men regarding marital satisfaction. Studies in Yazd and Tehran show no significant difference in sexual satisfaction, general health, and marital satisfaction between men and women [17, 37] However, another study conducted in Tehran indicates a significant difference between men's and women's marital satisfaction, where men have reported higher marital satisfaction [38]. Nonetheless, gender differences in marital satisfaction may vary from person to person. Cultures driving traditional sex roles or those affected by cultural issues, such as sexual equality, are conducive to creating these discrepancies [39]. Our finding may be due to the higher number of women participating in the study. It is necessary to conduct more studies on men and women in equal proportions before one can confirm or refute this finding with certainty.

Another finding of the study was that housewives had higher marital satisfaction than people involved in other occupations. This finding is consistent with Ferasat's finding, which showed that housewives had higher marital satisfaction than working women [40]. However, our results do not comply with Khezri's findings [41] on the higher marital satisfaction of employed people.

According to the literature, the spread of viral diseases such as the MERS and COVID-19 increases anxiety, stress, insomnia, and depression among individuals [42]. Kim et al.'s study showed that after the outbreak of viral diseases such as MERS-COV, the level of burnout and stress increased and could severely affect people's job performance [42]. The results of Wang et al.'s study in China revealed that in the first phase of the COVID-19 outbreak in China, a total of 53.8% of people assessed the psychological impact of the disease as moderate or severe, 16.8% reported moderate to severe depressive symptoms, and 28.8% reported moderate to severe anxiety symptoms [43]. These symptoms can be substantially more severe in the workplace because of workload and higher stress levels. In fact, the loss of mental health caused by job stress makes one act more weakly in the face of marital problems. Not only s/he may lose the chance to establish a proper and healthy relationship, but s/he may also experience a weaker relationship with others, especially the spouse. Consequently, the couple may express love and affection to a lesser extent and cause marital dissatisfaction [44].

5. Conclusion

The results of the present study demostrated that general health and marital satisfaction during the COVID-19 pandemic are mostly affected by depression and anxiety. Therefore, health care managers and policymakers are advised to pay special attention to depression and anxiety in families and contribute to general health, marital satisfaction, and, thus, family foundation by providing solutions to depression and anxiety during this pandemic.

Given the importance and role of satisfaction in the quality of marital life, it is imperative to increase couples' skills in various dimensions to improve their marital adjustment and satisfaction and, thus, their general health. It is suggested that more attention be directed to participation in workshops and training classes related to marriage and marital life skills. Acquiring such skills helps couples know one another better, establish a healthy and balanced relationship, and have higher marital satisfaction. Such skills enhance the ability of individuals to cope with interpersonal conflicts and problems. Since economic, cultural, and social conditions differ in different communities, it is suggested that locally appropriate instruments be designed and used in the study of marital satisfaction to measure these variables per the conditions and characteristics of the respective society.

Ethical Considerations

Compliance with ethical guidelines

The Ethics Committee of Mashhad University of

Medical Sciences approved the study (IR.MUMS.REC.1400.093).

Funding

This study did not have any funds.

Author's contributions

The authors equally contributed to preparing this article.

Conflict of interest

The authors declare that they have no conflict of interests.

Acknowledgments

We would like to extend our appreciation and thanks to all participants, staff, and managers who made this study possible.

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