Life Satisfaction among People in Reproductive Age: A Survey on Marvdasht City in 2016

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Abstract

Background: Life satisfaction is a comprehensive concept reflecting the general feeling of people about the society in which they live. Previous research has found that health status is associated with life satisfaction. Sexual intercourse is of physiological and psychological needs, which is closely associated with the wellbeing of any individual. In this study, we examined life satisfaction in Marvdasht, Fars province.

Methods: This population-based survey was conducted in 2016 among Marvdasht urban and rural population aged 18-50 years. The participants were selected via cluster random sampling. A telephone survey was conducted to complete an interview-administered questionnaire. Significance level in this study was considered 0.05. All stages of data analysis was done in SPSS₂₂ software.

Results: A total of 3879 participants from urban and rural areas of Marvdasht were interviewed. There was a difference between urban and rural men in terms of sexual satisfaction (P=0.01) (7.90 ± 2.01 vs. 8.15 ± 1.89) and life satisfaction (P=0.011) (5.64 ± 3.54 vs. 5.14 ± 3.71). Satisfaction in both cases in men in urban areas was better than men in rural areas. Also, the average score of sexual satisfaction was higher in rural men compared with that in urban male residents (P=0.01). Regarding women, at error level of 0.05, there was a difference between urban and rural women in terms of sexual satisfaction (P<0.0001) (8.62 ± 1.502 vs. 9.12 ± 0.789) and life satisfaction in both cases in women in rural areas was higher than men in rural areas.

Conclusion: Life satisfaction had a close relationship to geographical areas of residence. However, this was for women living in rural areas than women living in urban areas in both cases.

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Introduction

Life satisfaction is a confirmation or positive attitude towards a person's life. It is used in philosophical and psychological reports of happiness and wellbeing. Socio-demographic variables, including age, gender, employment status, ethnicity, family type, occupation, marital status, and sexual satisfaction are the factors related to life satisfaction.¹⁻⁵ Sexual satisfaction is defined as a state in which individuals describe and interpret their own sexual experience as being pleasurable.⁶ It is an essential part of romantic relationships, which is closely associated with the stability of relationship.¹ Sexual satisfaction has a very important relationship with marital satisfaction which is essential for building lasting and strong family ties.^{1,} ² It affects the thoughts and feelings of couples. These relationships directly and indirectly weaken them and enable them to easily ignore many of the inconsistencies and challenges of their lives.^{3,4} People who are sexually satisfied report a much better quality of life than people who are not sexually satisfied.^{5,6}

Sexual satisfaction is of physiological and emotional needs and is closely associated with individual's wellbeing and social life;⁶ thus, healthy sex life is an important part of general health and wellbeing.^{6,7} A surveys from 27 countries show that sexual dissatisfaction is widely common, and 63% of women and 48% of men are not satisfied with their sex life.² However, there is often lack of common concept about the meaning of sex satisfaction; the concept of sexual satisfaction is sometime measured by the frequency of sexual intercourse or orgasm.³⁻⁵

Few studies have defined sexual satisfaction as the concept of orgasm (i.e. peak of sexual pleasure in sexual activity).^{6, 7} According to Davidson et al., attaining pleasure or satisfaction from sexual relationship is a highly personal sentiment and is greatly related to an individual's past sexual experiences, current expectations, and future aspirations.⁸ Sexual satisfaction is highly important because it seems to be associated with people's wellbeing, health, and quality of life.⁹

Health is another broad concept associated with life satisfaction, which goes beyond the mere presence or absence of diseases.¹⁰ However, the current measures and available data do not allow for introducing a universally accepted measurement of health. This is because there is no consensus on the definition of health.¹¹ Moreover, health status (HS) is in fact a multi-dimensional concept that represents mental, physical, social, or other domains of human life (typically self-reported) Sexually transmitted infections (STIs) are a group of infectious diseases that can be transmitted from one sexual partner to another via sexual relationship.12 Studies have shown that STIs may affect the individual's sexual behavior and, therefore, sexual satisfaction via its psychological and physiological side effects.^{13, 14}

Due to several reasons including the cultural barriers of talking about sex, Iranian studies on sexual satisfaction and its effects on other parts of individual's life are quite limited, and no study was found which simultaneously investigated the association between sexual satisfaction, life satisfaction, and health status among Iranian population. The present study investigated the association of life and sex-satisfaction, general health, and STI-associated syndromes among residents of urban and rural areas of Marvdasht, Fars province (aged 18-50 years).

Methods

This is a cross-sectional study on males and females in sexually active age (aged 18-50 years) in Marvdasht.^{7,9} Because of the short distance (about half an hour driving) between Marvdasht city and Shiraz (the capital of Fars province), it has a multi-cultural and multi-ethnicity population, more details about the sampling and methods have been provided before.¹⁵

Study Population

Marvdasht is a county with a city of more than 170,000 residents and 226 villages and about 160,000 rural residents. The houses were selected from a census data provided by the health centers of county under the Ministry of Health. Of the rural and urban populations of Marvdasht county, 100 clusters from urban and 100 clusters from rural areas were randomly selected. As a result, within the county, 200 houses were randomly selected via systematic random sampling. The houses were used as the starting point of a cluster of 15 families (houses) who were living on the right side of the starting points. The sampling distance was determined separately in urban and rural areas by dividing the total number of houses to 100.

Data Collection

Housewives of randomly selected houses were interviewed at their house doors to complete the first questionnaire (family questionnaire). To fill out the family questionnaire, the interviewers asked the housewives the name, sex, age, and occupation of the householders. For those householders aged 18-50 years, cell phone numbers were also obtained.¹⁶ The housewives could ask for help from other householders if they were not able to recall any phone number.

An invitation card was delivered to the housewives, to be given to the eligible person informing him/her that within two days a phone call from a defined landline phone from the study office at Shiraz University of Medical Sciences will be made to them. The purpose of the study was written on this card.

This was done to assure the eligible family members of the privacy of the call and confidentiality of the information they provided during the phone interview. The phone interview was conducted by the same sex (trained male or female interviewer), starting with an explanation about the aim of the study as well as giving them assurance of the confidentiality of the information. At the beginning of each interview, after a brief introduction, it was emphasized that they could stop the interview at any time they wanted. Also, a verbal consent was obtained from the participants over the phone. The participants were asked questions regarding a wide range of information including age, marital status, education, occupation, health status, life satisfaction, and sexual satisfaction. All eligible members of the family were interviewed at almost the same period of time. To those who did not respond to the first call, a second call was made two or three hours after the first call. In case of no response to both calls, the householder was called again three days later. In case of no answer to the third call, the person was considered as unanswered and replaced by another person of the same sex.

In this study, life satisfaction was reported quantitatively by the respondent using a ten-point scale. In this scale, all aspects of life were considered; the answers to the question in the question "How satisfied are you with your life?" ranged from very dissatisfied (score 1) to very satisfied (score10).

Similarly, health status was self-reported by the respondent based on a 10-point response scale: Response to the question "How do you describe your health status?" was scored extremely bad (score 1) to perfectly healthy (score10)".

Sexual satisfaction was also reported by the respondents based on item 10-point response scale; The answer to the question "Considering all aspects of your sexual life, how satisfied are you with your sexual relationship with your partner?" was scored extremely unsatisfied (score 1) to extremely satisfied (score10). The existence of syndromes related to

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sexually transmitted infections (STIs) were asked and the participants answered a wide range of questions including current and past (since age 15) presence of the defined STI syndromes. Details of the STI-related syndromes investigated in this study have been provided before (22). The validity and reliability of the questionnaire were based on previous studies.17, 18

Statistical Methods

T-test and ANOVA were used to examine the relationship between demographic variables and life satisfaction, sexual satisfaction and health status. Linear regression was also used to examine the relationship between the score of life satisfaction and the demographic variables. SPSS version 19 was used for data analysis. A significance level of 5% was considered.

Results

Demographic Characteristics

3879 people (2243 men and 1636 women) from Marvdasht (urban and rural areas together) participated in this study. The participants were on average 33 years-old (Table 1).

Residency	Variable		Male	Female
·			n=1116	n=949
Urban	Marital status	Single, Widow and divorced	406 (36.4)	256 (26.97)
		Married	710 (63.6)	693 (72.9)
	Education	Literate & Primary	124 (12.4)	218 (22.8)
		Secondary	243 (24.3)	173 (18.1)
		High school	343 (34.2)	314 (32.8)
		Academic	249 (26.3)	252 (26.3)
	Job	Private	540 (55.4)	69 (7.2)
		Retired	16 (1.6)	0
		Employee	127 (13)	66 (6.9)
		Soldier	10 (1)	0
		Student	78 (8)	58 (6.1)
		Unemployed & Housewife	72 (7.4)	763 (79.8)
		Employed	97 (10)	0
		Farmer	34 (3.5)	0
Rural	Marital status	Single, Widow and divorced	341 (30.3)	141 (21.49)
		Married	783 (69.7)	515 (78.5)
			0	18 (2.7)
	Education	Literate & Primary	287 (25.6)	277 (41.3)
		Secondary	312 (27.8)	117 (17.5)
		High school	355 (31.7)	197 (29.4)
		Academic	167 (14.9)	79 (11.8)
	Job	Private	395 (35.1)	13 (1.9)
		Retired	1 (0.1)	0
		Employee	43 (3.8)	20 (2.9)
		Soldier	10 (0.9)	0
		Student	79 (7)	26 (3.7)
		Unemployed & Housewife	116 (10.3)	640 (91.6)
		Employed	214 (19)	0
		Farmer	266 (23.7)	0

In Terms of Gender

The mean scores of the three main indexes (life satisfaction, health, and sex satisfaction) were higher in women than in men. Life satisfaction was the lowest among men, while the score of health status was the lowest among women (Table 2).

In Terms of Location

Average score of life satisfaction was higher among men living in urban areas compared with that of men living in rural areas (urban: 5.64 ± 3.53 , rural: 5.14 ± 3.71 , P=0.001). However, the average score of sexual satisfaction was higher in rural men compared with that in urban male residents (P=0.01). Regarding women, there was a difference between urban and rural women in terms of sexual satisfaction (P<0.0001) (8.62 ± 1.502 vs. 9.12 ± 0.789) and life satisfaction (P<0.0001) (8.37±1.641in vs. 9.13±0.669). Generally, health status, life satisfaction, and sexual satisfaction were lower in urban women compared to rural ones (Table 2).

In Terms of Marital Status

The effect of marriage on 3 scores was significant in men, so that life satisfaction scores were much higher in married men than in single men; in women, it affected the health status score, so that it was lower in married women (Table 2).

In Terms of STI Syndromes

Men with STI-associated syndromes had generally lower general health scores compared with men without the syndromes, but they had higher sexual satisfaction and these differences were statistically

Table 2: Health status	s, life satisfaction, and sexua	al satisfaction ad	ccording to a	demographic features

Variable		Male					
		Health	ı status	Life satisfaction		Sexual satisfaction	
		Mean±SD	P value	Mean±SD	P value	Mean±SD	P value
Residency	Urban (1116)	8.33±1.65	0.202	5.64 ± 3.54	0.001	$7.90{\pm}2.01$	0.011
	Rural (1124)	8.23±1.66		5.14 ± 3.71		8.15 ± 1.89	
Marital status	Single (747)	8.59 ± 1.60	< 0.0001	2.60 ± 3.66	< 0.0001	7.18 ± 2.29	≤ 0.0001
	Married (1493)	8.13 ± 1.66		6.78 ± 2.70		8.12 ± 1.89	
Education	Illiterate or Elementary (411)	8.02 ± 1.79	< 0.0001	6.31 ± 2.82	< 0.0001	7.73±1.96	≤ 0.0001
	Secondary (555)	8.00 ± 1.76		5.59 ± 3.31		7.88 ± 2.14	
	High school or diploma (698)	8.50 ± 1.60		5.11 ± 3.94		8.34±1.78	
	Academic (416)	8.44±1.38		4.18 ± 3.93		8.22±1.76	
Age	<20 (200)	8.94±1.49	< 0.0001	$2.16{\pm}3.71$	< 0.0001	7.61±2.66	0.006
	20-30 (1150)	8.52±1.57		4.02 ± 3.98		$8.18{\pm}1.96$	
	30-40 (650)	8.14±1.63		6.11±3.25		8.17±1.87	
	40-50 (240)	7.95 ± 0.75		6.53±2.64		7.80±1.96	
Job	Private (935)	8.29±1.61	<0001	5.76±3.43	< 0.0001	8.13±1.94	0.013
	Retired and Employed (417)	8.13±1.92		3.23±3.71		7.55±2.29	
	Student (191)	8.02±1.81		5.42±3.53		7.80±2.14	
	Soldier and Unemployed (52)	8.14±1.65		6.20±3.02		8.03±1.71	
	Employed (257)	8.43±1.34		6.16±3.67		8.37±1.71	
	Farmer (388)	8.89±1.24		1.76±3.34		7.78±1.55	
Variable				F	emale		
		Health	status	Life sat	isfaction	Sexual satisfaction	
		Mean±SD	P value	Mean±SD	P value	Mean±SD	P value
Residency	Urban (949)	8.01±1.592	< 0.0001	8.37±1.641	< 0.0001	8.62±1.502	< 0.0001
	Rural (656)	9.13±0.656		9.13±0.669		$9.12{\pm}0.789$	
Marital status	Single (397)	8.72±1.320	< 0.0001	8.79±1.423	0.306	*	-
	Married (1208)	8.41±1.424		8.71±1.293		*	
Education	Illiterate and Elementary (495)	8.44±1.425	0.021	8.55±1.344	0.001	8.84±1.131	0.412
	Secondary (290)	8.28±1.599		8.54±1.609		8.86±1.002	
	High school and diploma (511)	8.50±1.328		8.79±1.282		8.99±1.25	
	Academic (309)	8.63±1.295		8.85±1.340		8.88±1.421	
Age	<20 (250)	8.73±1.433	0.002	9.07±1.216	< 0.0001	9.33±0.920	0.001
	20-30 (350)	8.61±1.33		8.87±1.314		9.09±1.806	
	30-40 (800)	8.40±1.380		8.63±1.343		8.84±1.201	
	40-50 (205)	8.32±1.506		8.40±1.499		8.77±1.117	
Job	Housewife (782)	8.48±1.386	0.008	8.70±1.339	< 0.0001	8.91±1.157	0.318
	Employee (66)	8.31±1.393		8.31±1.848		8.60±1.472	
	Student (84)	8.83±1.116		9.06±1.238		8.38±2.669	
	Private (673)	8.09±1.847		8.28±1.575		9.17±0.753	

*Not asked from single women

Variable		Male		Fen	Female	
		Beta	P value	В	P value	
Age (year)		-0.13 (-0.27, -0.0002)	0.05	0.005 (-0.002, 0.03)	0.83	
Education	Illiterate/primary	-	-	-	-	
	Secondary	0.42 (0.11, 0.73)	0.008	0.32 (0.09, 0.51)	0.008	
	Diploma	0.54 (0.28,0.79)	< 0.001	0.45 (0.17,0.54)	< 0.001	
	Bachelor	0.92 (0.53,1.31)	< 0.001	0.94 (0.03,1.00)	< 0.001	
Residency	Rural	-	-	-	-	
	Urban	0.26 (-0.10, 0.63)	0.15	-0.04 (-0.18, 0.10)	0.07	
Job	Housewife	-	-	-	-	
	Private	0.21 (-0.35, 0.78)	0.46	0.11 (-0.22, 0.54)	0.71	
	Employed	0.12 (-0.26, 0.51)	0.51	-0.03 (-0.08, 0.005)	0.08	
Marital Status	Single	-	-	-	-	
	Married	0.45 (0.05, 0.84)	0.02	-0.03 (-0.24, 0.17)	0.76	
Sexually transmitted	No	-	-	-	-	
infections syndrome	Yes	-0.37 (-0.83,0.08)	0.11	0.04 (0.002-0.18)	0.04	
No of sisters and brothers		-0.14 (-0.21, -0.08)	< 0.001	0.17 (0.10, -0.27)	< 0.001	
Health score		0.001 (-0.004,0.002)	0.16	0.42 (0.34- 0.44)	< 0.001	
Sexual satisfaction		1.10 (0.78, 1.43)	< 0.001	0.42 (0.32-0.40)	< 0.001	

 Table 3: Association of life satisfaction with health status, sexual satisfaction, and demographic factors

significant (P<0.0001). No significant difference in life satisfaction was observed. Also, health status, life satisfaction, and sexual satisfaction were lower in women with STI- associated syndromes in comparison with healthy women (Table 2).

In Terms of Education

The results of linear regression showed that health status, life satisfaction, and Sexual satisfaction were different at different levels of education (P<0.0001, P<0.0001, and P \leq 0.0001, respectively), so that life satisfaction and sexual satisfaction in men and sexual satisfaction in women increased with the level of education (Table 2).

In Terms of Age

The difference in all three cases was significant in men, so that with age, the health status score decreased; for life satisfaction, it was reverse. In women, the difference in all three cases was significant, so that with age, the score in all three cases decreased (Table 2).

In Terms of Job

In all three cases, the difference was significant in men, while in women, the difference was in the score of health status and life satisfaction (Table 3).

Discussion

This is a population based cross-sectional study on the status and association of sexual satisfaction, life satisfaction, and health status among Marvdasht general population. The results indicated significant associations between the three indexes and the main demographic factors measured in this study. The findings of this study indicated that the levels of health status, life satisfaction, and sexual satisfaction among the subjects were different. The results also indicated that all three domains were correlated.

As to life satisfaction, the results of the present study are consistent with the findings of other studies, suggesting that life satisfaction is higher in women than men.¹⁹ This difference can be justified by the fact that men and women view the concept of life satisfaction differently. Accordingly, men with a higher level of income are more satisfied with their life, whereas women are more concerned with emotional aspects of their life; however, the concept seems to be changing among women due to more equal job opportunities and income.²⁰

Similarly, the difference of sexual satisfaction among men and women are consistent with the findings of a study carried out in the UK which suggested a higher level of sexual dissatisfaction among men compared to women.²¹ Also, a study on 91 heterosexual couples suggested that sexual satisfaction was higher in women than in men.²² It has been shown that a wide range of sexual motives affect the level of sexual satisfaction.²³ For example, sexual satisfaction is affected by several characteristics including feelings, sexual behaviors, and some underlying social factors of the partners.⁴ Also, studies have shown controversy in terms of the extent to which men and women are sexually satisfied.²³⁻²⁵ For example, it has been shown that men tend to focus on physical aspects during intercourse, while women consider communication and emotional aspects of the relationship. Interestingly, if physical aspects (frequency of intercourse and type of sexual acts) are used for measuring sexual satisfaction, men will report more sexual satisfaction than women. However, if emotional aspects are used, women will be more satisfied than men.^{26, 27}

However, the mean score for sexual satisfaction was significantly lower in women with STI-associated

syndromes.²⁸ Many studies have shown that when sexually transmitted diseases exist, despite the good results of treatment, significant reduction occurs in sexual satisfaction in both men and women due to psychological factors such as depression, anxiety and stress, in addition to social factors such as social stigma and partner's reduced support.^{14, 29, 30}

The results of this study indicated that there was a significant and positive correlation between sexual satisfaction, life satisfaction, and health status among men and women. These results are consistent with the findings of other studies showing that sexual satisfaction is positively related to general health.² Sexual function is a predictor of blood circulation function, suggesting that sexual dysfunction is a good predictor of chronic cardiovascular diseases.³¹⁻³³ Generally, it has been revealed that sexual satisfaction increases our sense of well-being;34 in contrast, better physical performance and better health enhance sexual satisfaction.35 The results of this study showed that life satisfaction in women increased with increasing education, and it decreased with age in both sexes. The results of Demirel's study in Ankara showed that marital status had no effect on life satisfaction, but it decreased with age. The results also showed that marriage increased the life satisfaction, which was similar to the results of Ngoo in Asia.36

Conclusion

Life satisfaction was closely associated with sexual satisfaction in both sexes, and men had generally lower life satisfaction and sexual satisfaction than women in both urban and rural areas. Women were also healthier. The results show that life satisfaction increases with increasing level of education, and married people are more satisfied with life than single individuals. Irrespective of gender, increasing sexual satisfaction raises the life satisfaction among Marvdasht men and women.

Limitations

Although telephone surveys may lead to sample selection or information bias, this method is used in studying sensitive issues like sexual behavior; it has been shown to be valid and useful partly due to reducing embarrassment and shame experienced by the respondents.^{37, 38} In this study, single women were not selected for interview due to cultural and religious considerations of the society. Another limitation of this study is that we did not consider the economic and occupational issues of the participants, which are important components in life satisfaction, health status, and quality of life.

Suggestions

It is suggested that the effect of variables such as

frequency of sexual intercourse, premarital relationship, type of sexual intercourse, etc. on sexual satisfaction that have not been measured in this study should be examined in other studies.

Ethical Approval

The protocol of the present study was approved by Shiraz University of Medical Sciences, with the code of IR.SUMS.REC.131096.

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References

- Schmiedeberg C, Schröder J. Does sexual satisfaction change with relationship duration? Archives of Sexual Behavior. 2016;45 (1):99-107.
- 2 Mulhall J, King R, Glina S, Hvidsten K. Importance of and satisfaction with sex among men and women worldwide: Results of the global better sex survey. The journal of sexual medicine. 2008;5 (4):788-95.
- 3 Mirtaki M. Exploring the relationship between orgasm experience and marital satisfaction in the women referring to health-care centers. Unpublished MSc Thesis, Tehran Uiversity of Medical Sciences, Iran. 2004.
- 4 Sprecher S. Social exchange theories and sexuality. Journal of Sex Research. 1998;35 (1):32-43.
- 5 Frederick DA, Lever J, Gillespie BJ, Garcia JR. What keeps passion alive? Sexual satisfaction is associated with sexual communication, mood setting, sexual variety, oral sex, orgasm, and sex frequency in a national US study. The Journal of Sex Research. 2017;54 (2):186-201.
- 6 Pascoal PM, Narciso IdSB, Pereira NM. What is sexual satisfaction? Thematic analysis of lay people's definitions. Journal of sex research. 2014;51 (1):22-30.
- 7 Philippsohn S, Hartmann U. Determinants of sexual satisfaction in a sample of German women. The journal of sexual medicine. 2009;6 (4):1001-10.

- 8 Davidson JK, Darling CA, Norton L. Religiosity and the sexuality of women: Sexual behavior and sexual satisfaction revisited. Journal of Sex Research. 1995;32 (3):235-43.
- 9 Kalka D. Sexual Satisfaction, Relationship Satisfaction, and Quality of Life in Individuals with Type 2 Diabetes: Evidence from Poland. Sexuality and Disability. 2018;36 (1):69-86.
- 10 Sirgy MJ. The psychology of quality of life: Hedonic well-being, life satisfaction, and eudaimonia: Springer Science & Business Media; 2012.
- 11 Beiske KK, Stavem K. Health status in subjects with suspected obstructive sleep apnea and comparison with a general population. Scientific reports. 2018;8 (1):1-8.
- 12 Rodríguez Cerdeira C, Blanco E S, Blanco B S, Gregorio M C. Sexually Transmitted Infections in the PReP Era. Are Family Doctors Ready to Give Advice? The Open Dermatology Journal. 2017;11 (1).
- 13 De Ryck I, Van Laeken D, Nöstlinger C, Platteau T, Colebunders R, Group ES. Sexual satisfaction among men living with HIV in Europe. AIDS and Behavior. 2012;16 (1):225-30.
- 14 Kaida A, Carter A, de Pokomandy A, Patterson S, Proulx-Boucher K, Nohpal A, et al. Sexual inactivity and sexual satisfaction among women living with HIV in Canada in the context of growing social, legal and public health surveillance. Journal of the International AIDS Society. 2015;18:20284.
- 15 Mousavi M, Fararouei M, Kazerooni PA, Nasirian M, Ghaem H. Population based estimation of point and period prevalence of sexully transmitted infections based the iranian symptoms surveillance system. Amazonia Investiga. 2019;8 (18):29-42.
- 16 Mousavi MS, Fararouei M, Afsar-Kazerooni P, Nasirian M, Ghaem H. Evaluation of Conducting Phone Interviews on Sexual Behavior: An Iranian Population-Based Study. Shiraz E-Medical Journal. 2022;23 (6).
- 17 Fararouie M, Nejat M, Tabatabaie HR, Kazerooni PA, Akbarpoor M. Satisfaction levels with family physician services: a pilot national health programme in the Islamic Republic of Iran. EMHJ-Eastern Mediterranean Health Journal. 2017;23 (4):267-73.
- 18 Fararouei M, Brown I, Toori MA, Haghighi RE, Jafari J. Happiness and health behaviour in Iranian adolescent girls. Journal of adolescence. 2013;36 (6):1187-92.
- 19 Daig I, Herschbach P, Lehmann A, Knoll N, Decker O. Gender and age differences in domain-specific life satisfaction and the impact of depressive and anxiety symptoms: a general population survey from Germany. Quality of Life Research. 2009;18 (6):669-78.
- 20 Bakhshayesh A, MORTAZAVI M. The relationship between sexual satisfaction, general health and marital satisfaction in couples. 2010.
- 21 M. Dunn PRC, Geoffrey I. Hackett, Kate. Satisfaction in the sex life of a general population sample. Journal of Sex & Marital Therapy. 2000;26 (2):141-51.

- 22 Rehman US, Rellini AH, Fallis E. The importance of sexual self-disclosure to sexual satisfaction and functioning in committed relationships. The journal of sexual medicine. 2011;8 (11):3108-15.
- 23 Stephenson KR, Ahrold TK, Meston CM. The association between sexual motives and sexual satisfaction: Gender differences and categorical comparisons. Archives of sexual behavior. 2011;40 (3):607-18.
- 24 Santtila P, Wager I, Witting K, Harlaar N, Jern P, Johansson A, et al. Discrepancies between sexual desire and sexual activity: Gender differences and associations with relationship satisfaction. Journal of Sex & Marital Therapy. 2007;34 (1):31-44.
- 25 Morrison MA, Morrison TG, Sager C-L. Does body satisfaction differ between gay men and lesbian women and heterosexual men and women?: A meta-analytic review. Body image. 2004;1 (2):127-38.
- 26 LAWRANCE KA, Byers ES. Sexual satisfaction in long-term heterosexual relationships: The interpersonal exchange model of sexual satisfaction. Personal Relationships. 1995;2 (4):267-85.
- 27 Mousavi MS, Dehghani SL, Behzad B, Pourrezaei S, Ata'ali M. Study of the Epidemiology and Use of Condoms in Vulnerable Women Referring to Damage Reduction Centers in Shiraz During 2015-2016. Epidemiology and Health System Journal. 2021;8 (4):175-81.
- 28 Kazeroni PA, Khazaei Z, Mousavi M, Khazaei S, Sohrabivafa M, Dehghani SL, et al. Prevalence of human immunodeficiency virus and tuberculosis among homeless individuals. Immunopathologia Persa. 2017;4 (1):e06.
- 29 Bouhnik A-D, Préau M, Schiltz M-A, Obadia Y, Spire B, Group VS. Sexual difficulties in people living with HIV in France—results from a large representative sample of outpatients attending French hospitals (ANRS-EN12-VESPA). AIDS and Behavior. 2008;12 (4):670.
- 30 Kazerooni PA, Mousavi M, Khazaei Z, Esfahani MV, Mohseni S, Nejat M, et al. The prevalence of HIV among female head of household in Shiraz in 2015. Immunopathologia Persa. 2018;4 (2):e29-e.
- 31 Grover SA, Lowensteyn I, Kaouache M, Marchand S, Coupal L, DeCarolis E, et al. The prevalence of erectile dysfunction in the primary care setting: importance of risk factors for diabetes and vascular disease. Archives of internal medicine. 2006;166 (2):213-9.
- 32 Min JK, Williams KA, Okwuosa TM, Bell GW, Panutich MS, Ward RP. Prediction of coronary heart disease by erectile dysfunction in men referred for nuclear stress testing. Archives of internal medicine. 2006;166 (2):201-6.
- 33 Saigal CS, Wessells H, Pace J, Schonlau M, Wilt TJ. Predictors and prevalence of erectile dysfunction in a racially diverse population. Archives of internal medicine. 2006;166 (2):207-12.

- 34 Dundon CM, Rellini AH. More than sexual function: Predictors of sexual satisfaction in a sample of women age 40–70. The journal of sexual medicine. 2010;7 (2):896-904.
- 35 McCall-Hosenfeld JS, Freund KM, Legault C, Jaramillo SA, Cochrane BB, Manson JE, et al. Sexual satisfaction and cardiovascular disease: the Women's Health Initiative. The American journal of medicine. 2008;121 (4):295-301.
- 36 Ngoo YT, Tey NP, Tan EC. Determinants of life

satisfaction in Asia. Social Indicators Research. 2015;124 (1):141-56.

- 37 Smith EM. Telephone interviewing in healthcare research: a summary of the evidence. Nurse researcher. 2005;12 (3).
- 38 Midanik LT, Greenfield TK. Telephone versus in-person interviews for alcohol use: results of the 2000 National Alcohol Survey. Drug and alcohol dependence. 2003;72 (3):209-14.