



# Comparison of Marital Satisfaction of Nurse Couples and Those Whose Spouse is Not a Nurse and Predicting Factors That Determine Their Marital Satisfaction

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## Abstract

**Context:** The nature of the nursing profession is one of the effective factors in the marital satisfaction of nurses.

**Objectives:** This study aimed to examine the level of marital satisfaction in nurse couples in comparison to those whose spouse is not a nurse and also examine predicting factors of marital satisfaction.

**Methods:** Following a cross-sectional design, a total of 252 nurses working in educational hospitals in western and northwestern cities of Iran were recruited for this study. Participants were selected using the convenience sampling method. Data were collected using a two-part questionnaire: (1) items related to socio-demographic characteristics; and (2) items related to ENRICH Marital Satisfaction (EMS) Scale. Data were analyzed using SPSS v 21.0.

**Results:** The mean (SD) age of participants was 32.4 (6.39) years. Marital satisfaction was higher among employed nurse couples, those with rotating shifts, those with a lower number of night-work shifts per month, those with personal housing, and those whose spouse was a nurse. Also, a significant association was found between income level and marital satisfaction ( $P = 0.002$ ,  $F = 6.67$ ).

**Conclusions:** According to the findings, nurse couples had higher marital satisfaction in comparison to those whose spouse was not a nurse. Nurses reported their marital satisfaction as moderate. Paying attention to the livelihood conditions of nurses, providing more flexibility, and giving nurses the right to choose to set a monthly work schedule can improve their marital satisfaction.

**Keywords:** Marital Satisfaction, Nurses, Couples, Shift Work

## 1. Context

One of the most important aspects of the family system is the satisfaction that spouses experience during the marriage. A one's satisfaction with marital life implies her/his satisfaction with the family, and family satisfaction means life satisfaction, and the result will be to facilitate the growth and material and spiritual progress of society (1). On the other hand, non-satisfaction with marital status can lead to impairments in social relationships, feelings of loneliness and isolation, decline in marital satisfaction, and severe family disputes (2, 3).

Studies demonstrated a reciprocal association between marital satisfaction and employment; that is, if one encounters a problem either in affairs of job or family, the other one will be affected too. In other words, the emo-

tional, physical, and mental health of individuals depend on the quality of their marital relationship (4-6). Furthermore, the industrialization of societies and the necessity of the presence of men and women outside the home for employment give rise to family-work conflicts. One of these conflicts is related to marital satisfaction, which can negatively affect couples, especially those with shift work (7, 8).

Nursing has long been considered one of the professions that is active around the clock. Due to rotation shifts and variations in working schedules, nurses may spend long hours during the week in the hospital. Previous studies reported that shiftwork could have undue effects on nurses' family and social life and disrupt their joint social activities with their spouses, and consequently jeopardize their psychological health (9-11). Shiftwork, as well

as factors such as absence from home at different hours of the day and night, the transmission of the pressures of the workplace to the home and family environment, and cultural, environmental, and occupational factors that nurses encounter in the workplace can lead to feeling disconnected from society, increased depression, reduced interactions between couples, and, consequently, reduced quality of marital relationship (12, 13). It has been shown that shiftwork, like nursing, can affect many aspects of couples' marital life (14-16). Night-work shift disrupts nurses' marital life and makes them less likely to spend time with their husbands (17, 18). Previous studies have also revealed that couples with shift work have lower marital satisfaction, higher work-family conflicts, and sexual problems, and also are more likely to divorce (17, 19). Satisfaction with marital life among nurses is more important when both couples are nurses. Thus, paying attention to nurses' quality of life and marital satisfaction is of high importance, especially when both are nurses.

In Iran, due to the cultural and religious context of society and the need for gender-based care, there is a strong need for male nurses. Therefore, the number of male nursing students has increased so that in recent years, the rate of male and female nursing students' admissions in Iran has been almost equal (20). Owing to the increasing number of male nurses and economic pressures, and insufficient salary of nurses, male nurses are more willing to marry their female counterparts, so that marriage between nurses has become commonplace in recent years in the country (17). Nurses are among the largest group of health care providers, which their family life and marital satisfaction are of high importance as they can affect the quality of their care. Although some studies have examined the quality of nurses' marital life, no study compared whether there is a difference between marital satisfaction among nurse couples and those whose spouse is not a nurse.

## 2. Objectives

This study, therefore, aimed to compare marital satisfaction between nurse couples and those whose spouse was not a nurse and predict factors of marital satisfaction.

## 3. Methods

Following a cross-sectional design, a total of 252 nurses (67 nurse couples, 118 nurses whose spouse was not a nurse) working at educational hospitals affiliated to five Universities of Medical Sciences in Iran were recruited using the convenience sampling method. The sample size was determined using the formula as follow:

$$n = \frac{Z_{1-\frac{\alpha}{2}}^2 p (1 - p)}{d^2}$$

$$(d = 0.05, z = 1.96, P = 0.2)$$

The sample size was estimated at 245 subjects. To ensure the adequacy of the sample size and considering the possible dropout of 10%, 275 eligible nurses were invited to participate in this study, of which 262 agreed to participate. Also, 10 partially filled questionnaires were excluded. Hence, the data of 252 participants were analyzed. Inclusion criteria were as follows: (1) married (at least one year); (2) couples who at least one of them was a nurse; (3) having consent to enter the study; and (4) completion of the questionnaire. The exclusion criteria were unwillingness to continue the study and partially filled questionnaires.

### 3.1. Data Collection Tool

Data were collected using a questionnaire with two parts: (1) items relating to the socio-demographic data of participants (e.g., age, gender, type of employment, educational status, type of shift, income level, spouse's job, etc.); and (2) ENRICH Marital Satisfaction (EMS) Scale, developed by Olson in 1988 (21). This questionnaire comprised of 47 items grounded into nine subscales: personal issues, marital relationship, conflict resolution, financial management, leisure activities, sexual relationship, children and marriage, family and friends, and religious orientation. Each item was rated on a 5-point Likert scale, with scores ranging from one ('strongly') to 5 ('strongly disagree'). The total score of each item ranged from 47 to 235, with a higher score indicating higher marital satisfaction. The following formula was applied to normalize the scores of subscales and the overall score of the questionnaire:

$$\frac{\text{Obtained score in subscale} - \text{The possible lowest of subscale}}{\text{The possible highest of subscale} - \text{The possible lowest of subscale}} \times 100$$

### 3.2. The Validity and Reliability of EMS

The face and content validity of the questionnaire were reviewed by an expert panel that consisted of nursing and psychology experts (n = 12) in REDACTED and REDACTED Universities of Medical Sciences and adapted according to their suggestions.

The reliability of the questionnaire was reviewed by 30 experts and was tested in a pilot study. The reliability of the questionnaire was assessed using the test-retest method (ICC > 0.75 for all items). In this study, the inventory showed good internal consistency with a Cronbach's alpha of 0.77. In previous studies, Cronbach's alpha correlation of subscales ranged from 0.68 to 0.79, with a mean of 0.79 (14, 19, 21).

Data analysis was administered SPSSv21.0. Data were analyzed using descriptive tests (e.g., frequency, mean and

standard deviation (SD). Analytical tests, such as independent *t*-test, analysis of variance, Tukey post hoc test, and linear regression, were also used.

#### 4. Results

Table 1 shows the socio-demographic characteristics of participants. The mean (SD) age of participants was 32.4 (6.39) years. Most of the participants (47%) were aged < 30 years old.

Table 1. Demographic and Work Related Information of Participants

Variables	Values
Age; mean $\pm$ SD	32.40 $\pm$ 6.39
<b>Age group</b>	
< 30	119 (47.2)
30 - 40	107 (42.5)
> 40	26 (10.3)
<b>Gender</b>	
Female	139 (55.2)
Male	113 (44.8)
Work experience (y)	8.60 $\pm$ 6.25 (1 - 29)
Working hours per month	207.04 $\pm$ 52.42 (80 - 400)
Number of night shift per month	6.67 $\pm$ 4.96 (0 - 25)
Couple age difference	3.28 $\pm$ 2.65 (0 - 12)
Spouse's work experience (y)	9.20 $\pm$ 6.27 (1 - 27)
Number of children	0.93 $\pm$ 0.92 (0 - 3)
Duration of marriage (y)	6.87 $\pm$ 5.58 (1 - 25)

<sup>a</sup> Values are expressed as mean  $\pm$  SD (min - max) or No. (%) unless otherwise indicated.

In this study, marital satisfaction was significantly associated with employment status, type of shift, income level, housing status, and spouse's job. The mean marital satisfaction was higher among couples who were permanent nurses and had a guaranteed position until retirement, those with rotating shift, with personal housing, and those whose spouse's job was nursing ( $P < 0.05$ ). Also, a significant association was found between income level and marital satisfaction ( $F = 6.67$ ,  $P = 0.002$ ) (Table 2). According to the Tukey post hoc test, the marital satisfaction score was higher among those with incomes higher than expenses. Also, the marital satisfaction score was higher among those whose income was equal to their expenses ( $P < 0.01$ ).

In this study, the highest mean marital satisfaction score was found in dimensions of religious orientation,

followed by sexual relationship, communications, and financial management. In contrast, the lowest mean marital satisfaction score was seen in dimensions of conflict resolution, leisure activities, children, and parenting, respectively. In all dimensions, the mean marital satisfaction score was higher among nurses who had a spouse's nurse compared with those whose spouse was not a nurse (Table 3). The results of the multivariate regression model are shown in Table 4. The variables of spouse's job, income level, type of shift, the number of working shifts per month, and housing status predicted 52% of the changes in quality of marital life. The most important predictors of marital satisfaction were, respectively, being a spouse's nurse, having a higher income, rotating shifts, the lower number of night-work shifts per month, and having personal housing. The variables of employment status, age difference with a spouse, and those working in the same hospital were excluded from the model.

#### 5. Discussion

This study aimed to compare marital satisfaction of nurse couples and those whose spouse was not a nurse and to identify factors that predict marital satisfaction in Iran. To the best of our knowledge, this is the first study to compare marital satisfaction in nurse couples and those whose spouse was not a nurse in Iran. In this study, marital satisfaction was moderate, which is almost similar to the marital satisfaction of Iranian people in general (22). Our results were in line with previous studies that examined the quality of life in Iranian nurses (14, 23). A study in China reported that Chinese nurses' marital satisfaction was lower than that of the general population (18). The work-related stress of nursing work is influenced by the marital satisfaction of nurses, and in several studies, it has been demonstrated as one of the factors that can reduce the marital satisfaction of nurses. In the present study, permanent nurses who had a guaranteed position until retirement had better marital satisfaction in contracts with nurses. In Iran, job security is higher among nurses who are recruited in public hospitals; other nurses should work on a contract in a time frame of six months, which have lower job security. Until now, no study has examined the association between employment status and the marital satisfaction of nurses. However, there is an association between employment status and marital satisfaction in the general population (24), and in Iran, due to the rising costs of living, especially in recent years, men tend to marry up employed women (25).

In this study, nurses who worked rotating shifts reported higher marital satisfaction, which is not consistent with a previous study in Iran that showed higher marital satisfaction among nurses doing morning shifts (15).

**Table 2.** Differences in Marital Quality of Life by Demographic and Work Related Characteristics of Participants

Variables and Mood	No. (%)	Mean $\pm$ SD	P Value
<b>Gender</b>			0.096
Female	139 (55.2)	59.68 $\pm$ 17.81	
Male	113 (44.8)	63.95 $\pm$ 16.70	
<b>Age group</b>			0.20
< 30	119 (47.2)	59.18 $\pm$ 14.96	
30 - 40	108 (42.9)	62.57 $\pm$ 19.44	
> 40	25 (9.9)	65.98 $\pm$ 17.26	
<b>Employment status</b>			0.037
Permanent	148(58.7)	63.22 $\pm$ 17.91	
Fixed-term	102(40.5)	57.68 $\pm$ 15.91	
<b>Working hours per month</b>			0.30
< 200	148 (58.7)	63.05 $\pm$ 17.27	
200 - 250	56 (22.2)	58.18 $\pm$ 16.46	
> 250	40 (15.9)	60.37 $\pm$ 20.10	
<b>Type of work shift</b>			0.047
Fixed	23 (11.9)	54.23 $\pm$ 16.16	
Changing	217 (86.1)	62.06 $\pm$ 17.41	
<b>Education</b>			0.71
Associate degree	21 (8.4)	63.19 $\pm$ 16.27	
BSc	209 (83.3)	60.97 $\pm$ 17.80	
MSc	21 (8.4)	64.17 $\pm$ 16.12	
<b>Spouse education</b>			0.23
Associate degree	42 (16.8)	57.54 $\pm$ 18.68	
BSc	171 (68.4)	62.94 $\pm$ 17.07	
MSc	37 (14.8)	59.50 $\pm$ 17.57	
<b>Spouse employment status</b>			0.54
Permanent	112 (45.9)	69.20 $\pm$ 12.25	
Fixed-term	132 (54.1)	70.77 $\pm$ 12.06	
<b>Couples working in same hospital</b>			0.08
Yes	72 (54.5)	71.98 $\pm$ 11.86	
No	60 (45.4)	67.83 $\pm$ 12.17	
<b>Income</b>			0.002
Income < expense	58 (23.0)	54.15 $\pm$ 22.33	
Income = expense	156 (61.9)	63.59 $\pm$ 14.91	
Income > expense	21 (8.3)	68.75 $\pm$ 15.80	
<b>House status</b>			< 0.0001
Rental	97 (38.6)	54.94 $\pm$ 15.43	
Proprietary	154 (61.4)	64.57 $\pm$ 17.54	
<b>Spouse job</b>			< 0.0001
Nurse	134 (53.2)	69.76 $\pm$ 12.37	
Non-nurse	118 (46.8)	53.39 $\pm$ 17.91	

Moreover, in a study by Mansouri et al., marital satisfaction among rotating shift nurses was higher compared with those who worked fixed day shifts (17).

In this study, a higher score of marital satisfaction among rotating shift nurses can be attributed to more flexibility and having more time to do daily work, especially administrative work. However, more research is needed in this regard. In the current study, a significant associ-

ation was found between income level and marital status. Marital satisfaction score was lower among nurses with incomes lower than expenses. Income is an important factor in marital satisfaction. Generally, the monthly salary of nurses is lower than in other professions, which can affect their marital life. A study by Ouyang et al., in China, demonstrated that monthly income was positively associated with job satisfaction and marital satis-

**Table 3.** Mean  $\pm$  SD of Marital Satisfaction Components Based on Spouse Job

Variables	Total	Spouse Job		P Value
		Nurse (n = 134)	Non-nurse (n = 118)	
Personality issues	62.92 $\pm$ 23.96	72.55 $\pm$ 19.31	52.47 $\pm$ 24.19	< 0.0001
Communication	63.77 $\pm$ 24.50	72.87 $\pm$ 17.92	53.88 $\pm$ 26.83	< 0.0001
Conflict resolution	56.85 $\pm$ 20.76	64.60 $\pm$ 16.15	48.43 $\pm$ 21.97	< 0.0001
Financial management	63.69 $\pm$ 21.65	72.34 $\pm$ 18.07	54.32 $\pm$ 21.38	< 0.0001
Leisure activities	59.18 $\pm$ 19.11	66.05 $\pm$ 15.18	51.66 $\pm$ 20.18	< 0.0001
Sexual relationship	64.35 $\pm$ 19.28	70.48 $\pm$ 14.32	57.90 $\pm$ 21.64	< 0.0001
Children and marriage	59.38 $\pm$ 20.37	66.36 $\pm$ 18.38	52.33 $\pm$ 19.92	< 0.0001
Family and friends	60.14 $\pm$ 19.60	65.38 $\pm$ 17.32	54.26 $\pm$ 20.40	< 0.0001
Religious orientation	69.65 $\pm$ 20.22	76.73 $\pm$ 15.53	61.89 $\pm$ 21.91	< 0.0001
Marital satisfaction score	61.44 $\pm$ 17.44	69.76 $\pm$ 12.37	53.39 $\pm$ 17.91	< 0.0001

**Table 4.** Predictors of Marital Quality of Life of Study Participants

Variables	B	S.E.	Beta	t	P Value
Spouse job	-8.551	3.639	0.215	-2.350	0.021
Income	5.011	1.899	0.239	2.638	0.01
Shift type	13.228	3.678	0.360	3.597	0.001
Night shift (per month)	-0.829	0.349	0.238	-2.375	0.02
House status	5.676	2.801	0.186	2.026	0.46

faction of nurses (18). In our study, those whose spouse was a nurse had higher marital satisfaction compared with those whose spouse was not a nurse. The results of the regression model showed that being a nurse spouse, higher income level, rotating shift, lower number of night-work shifts per month, and personal housing were predicting factors of a higher score of marital satisfaction. Nurse couples and their marital satisfaction has not been examined in previous studies and requires further research.

In Iran, given that patients are cared for by a nurse of the same sex, more males have entered this profession, and the chances of men and women nurses getting married together have increased. Despite the potential cons, this can also have some pros. Nurse couples have a better mutual understanding of each other's working conditions, affecting their marital satisfaction. Furthermore, nurse couples will also can set their shifts so that they can better manage their family and marital life. However, this requires further research. In this study, while rotating night shift was associated with increased marital satisfaction, more night shifts per month was associated with decreased marital satisfaction. According to earlier studies, night work disrupts the sleep-wake cycle, which can have physiological and psychological consequences. When the body's adap-

tation system is disrupted, the daily cycle face problem, the body undergoes significant changes, and sleep is disturbed, so that is why so often night-shift workers complain about it. The association between night shift and marital satisfaction has been previously examined in several studies (16, 19).

Nursing managers and policymakers should pay more attention to the nurses' family and marital life issues. Paying attention to the living conditions of nurses, giving nurses the right to choose to set a monthly work schedule, and considering a lower night-work shift for married nurses are effective measures that can be taken into account by nursing managers. In the present study, one of the predicting factors of nurses' marital satisfaction was being a nurse spouse. Regarding those whose spouse is not a nurse, some measures such as inviting them to get familiar with the ward environment and working conditions of their spouse can be taken into account to improve their perception of their spouse's working conditions. Moreover, holding training courses related to communication skills and ways to maintain a balance between family and work is effective in improving the quality of life of nurses.

Despite its strengths, this study has several important limitations. Firstly, participants were recruited from west-

ern and northwestern cities of Iran using convenience sampling, which may limit the generalization of this study to other populations. Secondly, marital life and the level of satisfaction with it are among the private issues of people's lives. In addition, since the analyses were based on self-reported data, it is not possible to confirm the accuracy of the estimates with these data. Also, higher-income husbands may be more dissatisfied with their wives' work. However, we did not specify the income limits of the spouses as inclusion criteria. Another limitation was that the characteristics of nurses who were willing to participate in this study might be different from those who were not willing to participate, which limits the generalization of the results. Finally, for nurses whose spouse was not a nurse, informed consent of the spouse was not obtained for this study, which may affect the results.

## Footnotes

**Authors' Contribution:** Conception and design, MM, AA, HA, and SA.; Acquisition of data, MM, ZS, SA, and MN.; Analysis and interpretation of data, AA and MM.; Drafting of the manuscript, AA and MM.; Final approval of the manuscript, AA, MM, HA, ZS, SM, and MN.

**Conflict of Interests:** The authors are faculty members of Ilam and Shoushtar Universities of Medical Sciences and declare that there is no conflict of interest regarding this study. No one was paid during the study, and the study yielded no financial benefit to the authors or any third party. The authors were not affiliated with any third party or any other non-academic institution, and none of them are the editorial board members or a reviewer of Shiraz E-Medical Journal.

**Ethical Approval:** This study was approved by the Research Ethics Committee of Ilam University of Medical Sciences (Reference No: IR. MEDILAM.REC.1400.021). (webpage of the ethical approval code is: [ethics.research.ac.ir/ProposalCertificate.php?id=201226](http://ethics.research.ac.ir/ProposalCertificate.php?id=201226)).

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