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The relation of work, family, and life quality of nurses working at teaching hospitals of Kerman-Iran



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ABSTRACT

Background: Work and family are the source of tranquility and if the balance between these two is not provided, pleasure, happiness and peace of human being would be lost, which will cause unreturnable loss for him. Regarding the importance of nurses' role in health system, the present study aimed to study the relation of work-family balance and quality of life of nurses working at selected Iranian teaching hospitals.

Methods: Present study is a cross sectional, descriptive-analytical study which was carried out on 306 nurses working at three teaching hospitals of Iran. The sampling method was stratified sampling and questionnaire was the data collection instrument. Data analysis was carried out using inferential statistics through SPSS Ver18.

Findings: nurses spent more time to work than family and they had more satisfaction of their family life than their work. This suggests the

imbalance of nurses in two dimension of time balance and satisfaction balance, which has resulted a decrease in quality of life of studied nurses. Nurse's involvement in work and life as the third component of work-life balance concept, was balanced and it did not indicate significant correlation with quality of life. Nurses experiencing less work-family conflict and more stress in their life, had higher level of quality of life.

Conclusion: Nurses will be more exposed to the negative outcomes of work-life imbalance than other groups of employees, so paying attention to managing the demands of work and family aimed at improving the nurses' quality of life, has specific importance. Hence, designing a plan which defines main components of work-family balance among various groups of hospital staff including nurses, should be put at the top agenda of Iran's health system policy makers.

Keywords: Work-family balance, work-family conflict, Quality of life, Nurse, Stress

Cite This Article: Sedoughi, Z., Sadeghi, M., Shahraki, S., Anari, S., Amiresmaili, M. 2016. The Relation of Work, Family Balance, and Life Quality of Nurses Working at Teaching Hospitals of Kerman-Iran. *Bali Medical Journal* 5(1): 110-115. DOI:10.15562/bmj.v5i1.280.

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INTRODUCTION

Throughout history, working has been considered one of the fundamental ways of social participation and expression of human personality and greatness, and man has harmonized himself with working. However, working is not the only way to express social participation, and man has not been assigned just to work but rather resting, relaxing, taking social responsibilities, and spending more time with the family are other aspects of his existential philosophy.¹ Despite all positive effects working and earning money has on personal life of every human being, the concept of work has intangibly changed over time which has led to change in social and family relationships and has caused some problems for employees. One of the biggest problems almost all working people complain about is lack of a temporal balance between activities at work place and at home which has become a new companion for today's families.²

Work-life balance is a self-diagnostic statement obtained by a person able to manage the responsibilities of work and family; this balance preserves individual's mental and physical health by preventing

the creation of sadness and sorrow and other negative effects in life.³ Research shows that failure to achieve the right balance between work and rest leads to a feeling of lack of control over workload and lack of energy to accomplish personal goals and commitments. If there is no proper balance, fatigue, poor performance and reduced quality of life will appear.⁴ Greenhaus believes that work-life balance generally improves quality of life.⁵ That is person's assessment of and satisfaction with his/her existing performance levels compared to what is ideal or possible.⁶ Imbalance, results in high levels of stress, decreased quality of life and ultimately reduced individual efficiency at workplace.⁵

It seems that people who are working at hospitals are at higher risks of work-life conflicts due to occupational conditions including poor organizational support, night shifts, hard work, long working hours and low working flexibility.⁷ Nursing is one of the most important components of quality care, and nurses play a critical role in any health care system.⁸ They can't be satisfied with their lives without a work-life balance. Therefore, nurses experiencing

a lack of work-life balance consider improper working conditions the main reason of this imbalance, and thus they feel dissatisfied with their jobs.⁴ Researchers have found that employees who have experienced a high level of work-life conflict are at high risk of mental and physical problems, weak work performance, decreased parental effective performance, delay, job leaves, high job turnovers, decreased morale and dissatisfaction with job, life, marriage and family.⁹ Generally, managing the balance between work and family roles is related to the quality of personal life because such a balance decreases life-family conflicts and stress which is one of the main factors affecting quality of life.¹⁰

Since the balance between work and personal and social life is one of the main factors which decreases the effects of stressful conditions¹¹ and since staff shortages, high workload, day and night shifts or sometimes 40 work hours a week are the main factors of nurses' work challenges and occupational stress which cause work-life conflict,⁴ it is essential to examine work-life balance among these people. Hospital managers can, by managing this balance, have happy and satisfied employees who are interested in, loyal to and committed to their jobs and organizations and have effective performance. Achieving this goal requires that manager's stop their traditional view of the relationship between work and life which leads to a competition between work and life and select an approach in which interests of people and organizations are considered simultaneously and aligned with each other. Although work-life conflict hasn't been changed into a serious problem in Iran due to economic conditions of Iran, trend of social changes has shown that what is the problem of industrial countries now will be the problem for societies like Iran in the near future; therefore, to prevent its consequences, all people, especially managers must take steps to establish a balance between life and work.

METHODS

The present study was carried out to examine the relationship between work-family balance and quality of life among nurses working at teaching hospitals affiliated with Kerman University of medical sciences. To measure work-family balance, three elements (temporal balance, involvement balance and satisfaction balance) were described in work and family areas. To calculate each of these elements, coefficient equals were used. This coefficient was first presented by Jains and Fander in 1965¹² and was used in a study by Greenhaus et al in 2003. Balance coefficient is a figure between +1 and -1 and has a significant zero showing a

balance between work and family. In this research, the effects of two confounding variables (stress and work-family conflict) were examined on work-family balance and quality of life. Data was collected using a self-administered questionnaire which consisted of 55 items under eight sections. The content validity was confirmed by experts and the reliability was confirmed by test retest method through a pilot in an interval of 15 days by some responding nurses who were selected randomly ($r=0.75$). The statistical population consisted of all nursing staff (nurses, paramedics, operation room technicians and anesthesia technicians) of whom a sample of 390 participated in the study according to a stratified random sampling approach. To examine and evaluate all three balance types, balance coefficient was calculated. To study the effect of demographic variables on the quality of life, regression model was used; the effect of each variable on the quality of life was examined separately. Since significance level of none of demographic variables was less than 0.2, multivariable regression model was not run. All analysis was carried out through SPSS Ver18.

RESULTS

306 subjects filled in the questionnaire (response rate= 78.46). The study samples consisted of 250 women (81.7%) and 56 men (18.3%) with a mean age of 33.34 years. Nearly 80% of the respondents were married and most have 2 children (40.9%). 44.4% were officially employed, 34.4% had 0-4 years' working experience and 81% had bachelor's degree. Other results are presented in the following separate sections.

Balance in time allocated to work and family field and the impact of demographic variables

Total time allocated to the work field was measured based on the average number of working hours per week, average time spent on commuting between home and work and average number of night shifts per month (24.40, 72 hours a week and 7 night shifts per month respectively). Total time allocated to the family was measured based on average hours devoted to household, social and religious activities, elderly care, going to children's school and recreational activities (24.79, 8.59, 5.51, 2.02 and 2.35 hours respectively).

Participants spent significantly more hours a week at work (mean= 40.24) than at home (27.24), and that responding to work demands is more important to the personnel than responding to family demands. After total time allocated to the work area (W) and total time allocated to the family

area (f) were inserted in Jains and Fander balance coefficient formula, temporal balance coefficient allocated to work and family areas was measured in the nursing staff of 4 hospitals was (0.22) (Table 1). As stated above, this coefficient is a number

between +1 and -1 and has a significant zero. If the time allocated to work (w) is equal to the time allocated to family (f), the coefficient will be zero; that is, there is a temporal balance between work and family areas. If the coefficient moves towards +1, it means that more time is allocated to work and if it moves towards -1, it means that more time is allocated to life. In this case, no balance will be established. In this study, coefficient of temporal balance was +0.22 which was closer to +1. It means that participants spent more time at work than at family. This difference was significant statistically

To examine the impact of demographic variables on the temporal balance index in work and family areas, linear regression model was used. First, univariate models were used; those variables that had a significance level greater than 0.2 were not entered to multivariate model. Multivariate regression was performed backward. In the final model, the effect of variables such as age, sex, hospital and number of night shifts was shown on temporal balance in work and family areas. Results revealed that there is an inverse relationship between temporal balance and three variables of age, hospital and the night shift. However, there is a positive relationship between sex and temporal balance. Results of the study reflect that women are more able to allocate a balanced time between work and family than men.

Table 1 Mean time allocated to family and work areas and mean involvement score in family and work areas

	Mean	Std. D	Min.	Max.	t-test	p-value
Mean time allocated in a week to family	27.42	18.42	2	84	11.26	0.001
Mean time allocated in a week to work	40.24	7.41	18.27	65.38		
Mean involvement score in family	3.16	0.74	2	84	-1.09	0.28
Mean involvement score in work areas	3.23	0.72	18.27	65.38		

Table 2 Mean satisfaction score in family and work areas

	Mean	Std. D	Min.	Max.	t-test	p-value
Mean satisfaction score in family	3.67	0.66	2	5	-4.59	0
Mean satisfaction score in work	3.93	0.73	1.5	5		

Table 3 The relationship between the quality of life and each of the variables studied in this research

Variable	Mean	Std. D	1	2	3	4	5	6	7	8	9	10	11
Age	33.23	7.81	1										
Total time	67.45	19.82	-0.06	1									
Temporal balance	0.22	0.26	-0.15*	-0.73*	1								
Total involvement	6.39	1.07	-0.15*	0.01	-0.08	1							
Involvement balance	0.02	0.09	-0.04	0.09	0.02	-0.13*	1						
Total satisfaction	7.61	1.11	0.05	-0.06	0.08	0.04	0.21*	1					
Satisfaction balance	-0.02	0.07	-0.06	-0.1	0.08	0.09	0.00	0.01	1				
Work-life conflict	3.42	0.81	0.11	-0.01	-0.01	0.19*	-0.05	-0.1	-0.19*	1			
Life-work conflict	2.56	0.9	0.11	0.02	0.05	0.3*	-0.08	0.05	0.15*	0.12	1		
Stress	2.65	1.07	-0.17*	-0.08	0.12*	-0.28*	0.22*	0.24*	0.1	-0.24	0.11	1	
Quality of life	3.35	0.8	-0.04	0.06	-0.04	-0.13*	0.00	0.29*	-0.15*	-0.07	-0.05	0.27*	1

*: p-value <0.05

Involvement balance in work and family area and the effect of demographic variables

Participants were more involved in work affairs than in family affairs however the observed difference was not statistically significant ($P_{\text{value}}=0.278$). The relatively small figure of balance coefficient (0.02) shows that participants were involved in both areas almost equally and there is a balance between involvement in work and family. The only variables affecting this relationship are two variables of gender and number of monthly night shifts. The involvement balance in work and family area was more in women than in men, and as night shift increases by one night, involvement balance index increases by 0.003 (See [table 1](#)).

Balance in satisfaction with work and family area and the effect of demographic variables

The balance coefficient of satisfaction (0.02) represented higher level of satisfaction with family than with job. This difference was statistically significant ($P_{\text{value}}=0.00$). Additionally, the only variables affecting this relationship were place of working and number of children. As number of children increased, satisfaction balance index decreased in both areas. Moreover, personnel working at Intensive care units (ICU, CCU, NICU) had higher levels of satisfaction balance in both areas (See [table 2](#)).

Quality of life, work-family balance and the effect of demographic variables

[Table 3](#) shows mean, standard deviation and coefficient correlation of the variables which indicates a direct and inverse relationship between age, temporal balance, total involvement in work and family and satisfaction balance and the quality of life. Moreover, there was no statistical significant relationship between involvement balance in work and family and quality of life. Total time allocated to work and family areas and total satisfaction in both areas were positively related to the quality of life. Work-family conflict and family-work conflict were negatively related to the quality of life, while stress had a positive relationship with the quality of life.

DISCUSSION

In recent years, competition between demands of work and family areas has become a topic of interest in the process of human resources management.¹³ In the health sector, concerning the importance of services and dealing with death and lives of people, paying attention to nursing responsibilities is a way to make correct and timely decisions to improve

the quality of care.¹⁴ Nurses often complain about high workload and low salary; therefore, problems such as decreased job satisfaction and stress levels continue to remain strong.¹⁵ If manager could provide the balance between work and family, it will lead to loyal and committed employees who have effective job performance, to do so the present study tried to take a step to depict the balance between work and family among nurses working at teaching hospitals and its impact on the quality of nurses' lives. As mentioned above, to measure work-family balance, three elements of temporal balance, involvement balance and satisfaction balance were described in work and family area. According to the results, involvement balance coefficient in both family and work areas (0.02) was almost zero which shows that participants were involved in both areas almost equally.

In a similar study,⁵ this figure was 0.04 which is roughly similar to the results of this study. In this study, involvement balance in work and family area was more in women than in men, and as night shifts increased, involvement balance index increased by 0.003. In his research, Gola (2006) argued that working at night shifts meant spending more time with family during the day, and emphasized that night shifts was a way to take more care of children.¹⁶ Concerning temporal balance index, personnel allocate more time to work than to family. In a study, Godmansun (2007) considered financial and economic pressure a main factor that caused employees to spend more time at work which reduced the quality of time allocated to family, increased marital instability and thus increased dissatisfaction.⁷ According to Karimi (2009) this was because of special cultural context in Iran.¹⁸ Results of this study revealed that as people get older, their ability to establish a temporal balance between work and family decreases which is not in line with the results of the previous studies. Williams announced in his research that people who were at the first years of working were more concerned about their occupational progress than people with high working experience. Therefore, they were less likely to achieve satisfaction resulted from work-family balance.¹⁹

There was an inverse relationship between number of night shifts per month and the type of hospital and the work-family balance. It is worth noting that women were more able to establish a temporal balance in work and family than men. Based on findings of a study by Rasouli et al the proper distribution of time between work and family demands especially for men was stressed.²⁰ This balance can eventually cause patients to experience more effective care conditions by providing a suitable care environment.²¹

Satisfaction balance coefficient (-0.02) shows individual's higher satisfaction level with family than with work. With the low organizational support, hard work, long working hours, low job flexibility and labor shortages in hospitals as the main causes of imbalance in and dissatisfaction with both work and family areas.

Concerning job satisfaction, it's worth mentioning that job satisfaction is not only related to person's working conditions and characteristics, but also employee's personal life must be taken into consideration¹⁸ because person's high life satisfaction and quality is one of the most important prerequisites of improving employees' productivity and commitment.^{22,23} Low number of children and working at non-intensive departments, as person's living conditions and working place, were important factors affecting the improvement of satisfaction balance index in family and work areas in this study.

Work-family balance is related to the quality of life, but under certain circumstances and not in the way it is perceived. In this study, a positive and direct relationship was observed between total time and total satisfaction allocated to work-family area and quality of life; but what affected this relationship was the way time, involvement and satisfaction were distributed between the demands of work and family domains.

The relationship between work-family balance and quality of life is not a linear relationship but rather is affected by several confounding factors. In this study, three confounding factors of "work-family conflict, family-work conflict and stress" were evaluated. It was shown that those who experienced more work-family and family-work conflicts and less stress had lower quality of life. The results about the relationship between quality of life and stress are different from results of the previous studies. Previous studies indicated that the lower stress people experience in their lives, the higher quality of life they will have. For example, Nouhi et al showed in their study that there was a reverse significant relationship between quality of life and stress ($r = -0.68$ and $p < .0001$).²⁴ Thus, further studies are necessary to recognize factors affecting the relationship between quality of life and work-family balance and stress in the form of a systematic review. Results of previous studies conducted on the relationship between quality of life and work-family conflict and vice versa confirm the findings of this research.⁵ According to the results of a study carried out by Shabani Bahar et al, the relationship between work-family conflict and quality of life can't be expected to be always an inverse one.²⁵

According to the coefficient of temporal balance, participants allocated more time to work and were

more satisfied with the family. Therefore, at one end of this continuum, there is a positive relationship between work-family balance and quality of life which shows lack of balance in responding to work and family demands among the studied nurses. Unlike Greenhaus's which showed that more satisfaction with family was related to quality of life,⁵ results of this research showed that people who were more satisfied with family and allocated more time to work, had lower quality of life.

Some previous studies have regarded flexible working hours, flexible working locations, flexible work processes (e.g. teamwork, workflow, job-sharing, etc.), financial and social support, stress management,²² the quality of working life,¹⁵ fewer working days in week and virtual offices¹³ as the solutions which can strengthen work-family balance in the organizations. However, to implement such solutions, it is necessary to customize them according to specific conditions of hospitals.

LIMITATIONS

This study faced some limitation which might adversely affected the results. First like any questionnaire based study it was limited to the content of the questionnaire this might have ignored some aspects of the issue. Second like any self-administered questionnaire, people might have not filled in the questionnaire properly and honestly. However, we did our best by explaining the questions and the study objective to minimize such deficiencies.

CONCLUSION

The present study explored work family balance in detail. This enabled us to identify many influential factors in this regard. However, further studies must be conducted on what elements most contribute to work-family balance in hospitals. It is essential that policymakers pay complete attention to the effects of organizational changes in mental environment of the work with the aim of improving physical and mental health of people working at hospitals and consequently improving quality of services and patients' safety level at hospitals.

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