

Evaluation of Quality of Life and Affecting Factors Among Nurses Working in Elazığ City Center Hospitals*

Elazığ Kent Merkezi Hastanelerinde Çalışan Hemşirelerin Yaşam Kalitesi ve Etkileyen Etmenlerin Değerlendirilmesi

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ABSTRACT

Aim: The aim of this study is to examine the life quality of nurses, who cover a wide range of healthcare professionals, according to various variables.

Methods: The universe of the cross-sectional study consisted of 1082 nurses working in hospitals. The sample of study composed of 723 nurses (66.8%). We evaluated data in the SPSS-22 program. Percentage, mean, t-test, Chi-square test, and one-way analysis of variance (ANOVA) were used according to the characteristics of the variables. $p < 0.05$ was considered to be statistically significant.

Results: 68.6% of the study group were women, 56.8% were married, and 50.1% had completed their undergraduate education. When Short Form-36 (SF-36) was compared subscale groups according to smoking status, a significant relationship was found in others except for the role emotional ($p < 0.05$). There was a significant difference in all sub-items of SF-36 by age groups ($p < 0.05$). At all subscales, the scores of singles and men were significantly higher ($p < 0.05$). As the year worked increased in the physical functioning category, the quality of life scores was falling.

Conclusions: As the year worked, the number of children and income increased, the quality of life scores were falling. The quality of life of nurses should be increased by improving working hours and conditions.

Keywords: Quality of Life; Nurse; Hospital.

ÖZ

Amaç: Hemşirelerin yaşam kalitesi ve etkileyen faktörlerin incelenmesi amaçlanmıştır.

Yöntem: Kesitsel tipte olan araştırmaya Elazığ ilindeki hastanelerde çalışan 1082 hemşire dahil edilmiştir. Etik kurul izni ve gerekli izinler alınmıştır. Cevaplılık oranı %66,8'dir. Veriler SPSS-22 programında değerlendirilmiştir. Değişkenlerin özelliğine göre yüzde, ortalama, t testi, ki kare testi, tek yönlü varyans analizi (ANOVA) kullanılmış ve $p < 0,05$ istatistiksel anlamlı kabul edilmiştir.

Bulgular: Araştırma grubunun %68,6'sı kadın, %56,8'i evliydi ve %50,1'i lisans eğitimini tamamlamıştı. Sigara içme durumuna göre Kısa Form-36 (SF-36) alt ölçek gruplarının karşılaştırıldığında emosyonel durum hariç diğerlerinde anlamlı bir ilişki bulundu ($p < 0,05$). SF-36'nın tüm alt maddelerinde yaş gruplarına göre anlamlı bir farklılık vardı ($p < 0,05$). Tüm alt ölçeklerde bekarların ve erkeklerin skorları daha yüksekti ($p < 0,05$). Fiziksel fonksiyon kategorisinde çalışılan yıl arttıkça yaşam kalitesi puanı düşmekteydi.

Sonuç: Çalışılan yıl, çocuk sayısı ve gelir arttıkça yaşam kalitesi skorları düşmekteydi. Çalışma saatleri ve koşulları düzeltilerek hemşirelerin yaşam kalitesi artırılmalıdır.

Anahtar Kelimeler: Yaşam Kalitesi; Hemşire; Hastane.

INTRODUCTION

Quality of life is defined by WHO as an individual's perception of their position in life in relation to their goals, expectations, standards and concerns in the context of their culture and value systems

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(1). This concept has become one of the universal goals of societies in the modernization process and has become an important indicator in making political decisions (2). The purpose of evaluating the quality of life is to determine to what extent the individual is satisfied with his / her psychological, social, physical and economic situation (3).

A brief examination of the history of the nursing profession shows that it dates back to the first ages. The healing role of women is accepted as the beginning of the nursing profession (4). According to International Nursing Council (ICN), it is a profession that tries to heal and rehabilitate the individual in case of illness by helping the

health and development of the individual, family and society. Nurses also contribute to the development and implementation of the therapeutic and educational plans of the health care workers (5). The World Health Organization (WHO) defines nursing as a branch of science and art that focuses on individuals and all the needs of individuals (6).

Health care workers, who are required to deal with mostly sick individuals, experience intense stress in working life than other occupational groups to a greater extent. In order for the services to be more efficient in the field of health, the quality of life and working conditions of healthcare workers should be improved and problems they experience should be eliminated (7,8). For this reason, studies should focus not only on individual but also on social and health policies; burnout and depression should be detected early in healthcare workers; measures against these should be taken; coping methods should be determined and the life quality of the healthcare workers should be improved (9).

An examination of the reasons influencing the life quality of nurses in the work environment demonstrates that nurses are affected by such reasons as sufficient number of nurses, positive relations in the work life, control over nurses and career development opportunities. Occupational stressor, personal strain, job burnout, length of work hours, diet irregularity and age are the main risk factors for lower life quality of nurses (10). Increasing the quality of health services is related to the quality of life of health workers. Therefore, the quality of life and influencing factors of nurses, who are among the leading healthcare professionals, should be investigated.

MATERIALS AND METHODS

Aim of The Study: The aim of this study is to examine the life quality of nurses, who cover a wide range of healthcare professionals, according to various variables.

Design and Sample: The universe of the study consisted of 1082 nurses working in An University Medical Faculty Hospital, A State Hospital, An Education and Research Hospital, A Private Hospital. The number of nurses participating in

the study on a voluntary basis was 723 (66.8%). 359 people could not be included in the study due to annual leave, maternity leave, being on medical report or refusing to accept the study.

Data Collection: The questionnaire form, which was developed by the researcher by reviewing the literature (1-13), contains 19 questions about socio-demographic characteristics, work environment and the characteristics of the night shifts performed, 11 questions about health behavior, and the SF-36 test involving 36 questions. SF-36 is the most commonly used measure of life quality in the field of health care. It was developed by Rand Corporation in 1992 for use in clinical practice and research (11). SF -36 consists of the following sections: physical function (**PF**, 10 items), social function (**SF**, 2 items), role physical (**RP**, 4 items), role emotional (**RE**, 3 items), mental health (**MH**, 5 items), vitality (**VT**, 4 items), bodily pain (**BP**, 2 items), and general health (**GH**, 5 items) (13). The Turkish version of SF-36 was validated by Koçyiğit et al. (12). Cronbach alpha was 0.73-0.76 for all subgroups. The scale consists of Likert type questions except 4th and 5th items which are yes/no questions (13). Rather than giving a general total score on the scale, it is calculated by giving scores for each section separately. In order to calculate the score of each question item, a number, starting from one, is given to the answer. Each number gets a different score in the instruction in accordance with the option selected by the participants (14). Scoring is evaluated between 0 and 100. While 0 points indicate poor health condition, 100 points indicate good health status (12). The scale allows to evaluate the last four weeks of the person. The questionnaires were applied using face to face method. Cronbach alpha was calculated to measure the consistency of SF-36. Accordingly, it was calculated as 0.72 in this study.

Statistical Analysis: The data were analyzed using the SPSS-22 program. The normal distribution of the data was examined with the Kolmogorov-Smirnov test, and it was found to be normally distributed. Percentage, t test, chi-square test, spearman correlation test, one-way analysis of variance (ANOVA) and mean tests were used in

statistical analyses. In addition, ANOVA-LSD technique was used to investigate the differences. $p < 0.05$ was accepted as statistical significance, and $p < 0.05$ was accepted as statistical significance.

Ethical Consideration: Ethical permission was obtained from Firat University Rectorate Non-Invasive Research Ethics Committee. The study protocol was conducted according to the Declaration of Helsinki. Written permission was obtained from the director office of hospitals. Written consents of the patients, who participated in the study, were obtained after reading an informed consent.

RESULTS

The socio-demographic characteristics of the nurses included in the study are shown in Table 1.

Table 1. Socio-Demographic Features, Elazığ, 2021

Socio-Demographic Features		n	%*
Sex	Female	496	68.6
	Male	227	31.4
Marital Status	Married	412	56.8
	Single	279	38.7
	Others	32	4.5
Education Status	High school	149	20.6
	Undergraduate	185	25.6
	Graduate	362	50.1
	Postgraduate	27	3.7
Working Year	0-5 years	283	39.0
	6-10 years	172	23.8
	11-15 years	108	4.9
	16-20 years	103	14.4
	>20 years	57	7.9
Work Schedules	Permanent Day	228	31.5
	Permanent Night	34	4.7
	Shift	443	61.3
	Mixed	18	2.5
Children	Yes	374	51.7
	No	349	48.3
Monthly income	1000-3000 TL	258	35.6
	3001-5000 TL	324	44.9
	>5000 TL	141	19.5
Total		723	100.0

*column percent

It was found that 51.9% of the participants were working with a 16-hour shift and 68.3% were on night shift. Approximately 72 % of the participants stated that they did not have any chronic diseases, 53.4% did not eat regularly and 71.9% did not have a special time to rest. 24.9% of them stated that they still smoked, 20.7% said that they smoked and quit, and 54.4% stated that they never smoked. 62.9% of the female participants and 35.7% of the male participants had never smoked.

The comparison of the SF-36 subscale groups according to the smoking status of the nurses included in the study revealed a significant correlation in all subscales except the RE ($p < 0.05$). Significant relationship was found in others except for the role emotional ($p < 0.05$), (Table 2).

When the SF-36 subscale groups were compared according to the smoking duration of the nurses included in the study, a significant difference was found between RP, VT, and GH ($p < 0.05$). When the life quality scores were evaluated according to the duration of smoking, the average quality of life of individuals who have been smoking for 0-5 years in the RP, VT and GH categories were found to be higher. A significant difference was found in all sub-items of SF-36 according to age groups ($p < 0.05$).

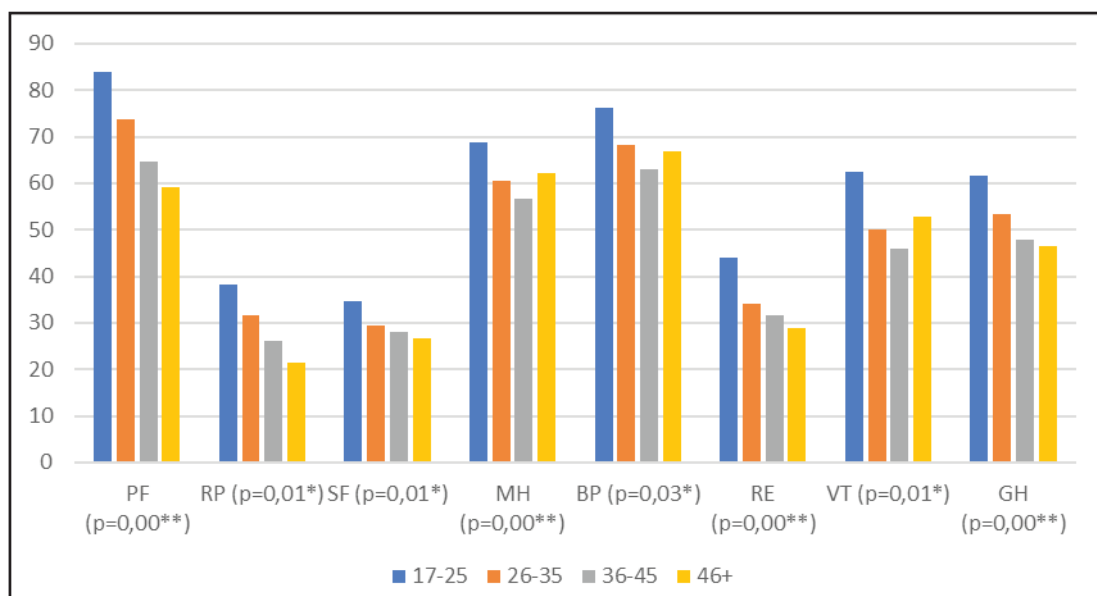
A significant difference was also found between the means of SF-36 subscales between the marital status of the participants ($p < 0.05$). The scores of the single participants were significantly higher than married ones in all subscales.

Table 2. The comparison of the SF-36 subscale groups according to the smoking status, Elazığ, 2021

	Smoking Status							F
	Still Smoking		Stoped Smoking		Never Smoked			
	Mean	SD	Ort.	SD	Ort.	SD	p	
PF	74.22	25.11	67.37	23.90	74.55	22.19	0.004**	5.504
RP	33.45	18.39	26.67	18.13	31.93	18.95	0.003**	6.041
SF	31.30	13.39	27.52	10.16	30.65	13.41	0.015**	4.194
MH	59.29	18.97	57.07	16.21	63.80	18.18	0.001**	9.059
BP	70.24	22.03	62.38	19.52	70.11	22.07	0.001**	7.712
RE	35.31	18.79	32.97	17.19	36.59	18.36	0.123	2.161
VT	53.44	22.28	47.67	19.12	52.54	23.04	0.036*	3.346
GH	55.11	15.81	48.20	14.45	54.62	17.37	0.001**	9.579

One way ANOVA was used, * $p < 0.05$, ** $p < 0.01$

Figure1. The comparison of the SF-36 subscale groups according to the age groups, Elazığ, 2021



One way ANOVA was used, * $p < 0.05$, ** $p < 0.01$

When the subscale groups are compared in terms of age groups, it was found that the PF category was higher in the 17-25 age range compared to the other age group averages in the Figure 1.

The health perception scores of the participants with no children were higher than the other categories ($p < 0.05$). When the subscale groups of the nurses included in the study were compared according to sex, a significant difference was found between PF, FF, SF, BP, RE, VT ($p < 0.05$). The scores of men were higher than women in all

subscales that differed significantly. When SF-36 sub-scale groups are compared according to the working status of the nurses included in the study, a significant difference was found between the perception of PF, RP, SF, BP, RE, VT, and GH ($p < 0.05$). Nurses working as subcontractors had higher PF, RP, BP, RE, VT subscale averages than nurses working in other status.

No significant difference was found at the sub-scale groups of the participants according to working services ($p > 0.05$).

Table 3. The comparison of the SF-36 subscale groups according to monthly income, Elazığ, 2021

	Monthly Income						p	F
	1000-3000 TL		3001-5000 TL		>5000 TL			
	Mean	SD	Mean	SD	Mean	SD		
PF	76.87	23.59	71.26	23.82	69.96	22.50	0.005**	1.351
RP	35.85	17.47	28.67	19.33	28.62	18.45	0.000**	1.555
SF	31.96	13.71	29.03	12.38	29.93	11.59	0.024*	1.531
MH	64.24	19.48	59.81	17.53	59.51	17.01	0.007**	1.145
BP	71.92	23.83	67.11	19.88	66.65	21.54	0.015*	1.680
RE	39.26	18.80	33.61	18.04	33.93	17.01	0.001**	1.406
VT	58.39	23.40	48.55	20.56	47.90	20.99	0.000**	1.738
GH	56.31	16.92	51.99	16.07	51.52	16.70	0.003**	1.536

One way ANOVA was used, * $p < 0.05$, ** $p < 0.01$.

Table 4. Correlations between SF subscale groups and sosyo-demographic features, Elazığ, 2021

		Age	Smoking	Income	RP	SF	MH	BP	RE	PF	VT	GH
Age	r	1	.060	.221	-.275	-.174	-.224	-.248	-.249	-.394	-.243	-.332
	p		.407	.000**	.000**	.000**	.000**	.000**	.000**	.000**	.000**	.000**
Smoking	r	.060	1	.103	-.013	-.007	-.057	-.065	.025	-.030	-.037	-.089
	p	.407		.155	.856	.925	.429	.366	.735	.679	.605	.216
Income	r	.221	.103	1	-.136	-.020	-.071	-.045	-.088	-.134	-.162	-.090
	p	.000**	.155		.000**	.594	.055	.222	.017*	.000**	.000**	.016*
RP	r	-.275	-.013	-.136	1	.402	.371	.579	.643	.517	.535	.493
	p	.000**	.856	.000**		.000**	.000**	.000**	.000**	.000**	.000**	.000**
SF	r	-.174	-.007	-.020	.402	1	.384	.427	.423	.378	.450	.361
	p	.000**	.925	.594	.000**		.000**	.000**	.000**	.000**	.000**	.000**
MH	r	-.224	-.057	-.071	.371	.384	1	.435	.512	.449	.665	.497
	p	.000**	.429	.055	.000**	.000**		.000**	.000**	.000**	.000**	.000**
BP	r	-.248	-.065	-.045	.579	.427	.435	1	.504	.555	.526	.565
	p	.000**	.366	.222	.000**	.000**	.000**		.000**	.000**	.000**	.000**
RE	r	-.249	.025	-.088	.643	.423	.512	.504	1	.464	.668	.492
	p	.000**	.735	.017*	.000**	.000**	.000**	.000**		.000**	.000**	.000**
PF	r	-.394	-.030	-.134	.517	.378	.449	.555	.464	1	.484	.524
	p	.000**	.679	.000**	.000**	.000**	.000**	.000**	.000**		.000**	.000**
VT	r	-.243	-.037	-.162	.535	.450	.665	.526	.668	.484	1	.533
	p	.000**	.605	.000**	.000**	.000**	.000**	.000**	.000**	.000**		.000**
GH	r	-.332	-.089	-.090	.493	.361	.497	.565	.492	.524	.533	1
	p	.000**	.216	.016*	.000**	.000**	.000**	.000**	.000**	.000**	.000**	

r =Pearson correlation, * $p < 0.05$, ** $p < 0.001$.

When the SF-36 subscale groups were compared according to the working hours of the nurses, no significant difference was found in perception of MH, RP, and GH ($p > 0.05$). A significant difference was found in SF, PF, RP, BP, VT ($p < 0.05$). Quality of life scoring was also investigated in terms of working hours. In the FF category, the

quality of life score of the participants working in the 16-hour period was higher than the participants who worked 12 hours. The evaluation of the quality of life scoring in terms of education level showed that the scores of high school graduates in the VT category were higher than the graduate and doctoral graduates. Quality of life scores

were evaluated according to the number of night shifts per month. In the pain category, the average pain of individuals with 6-10 night shifts per month was higher than those who had more than 10 night shifts per month. A significant difference was observed in all subscales except SF among participants ($p < 0.05$). Quality of life scores were evaluated according to the duration of work in the unit. As the proportion of years worked in the PF category increased, the quality of life score decreased. In general, as the monthly income increased, the quality of life scores decreased (Table 3).

It is seen that age and SF-36 subgroups are generally correlated with each other (Table 4). All subgroups of SF-36 was correlated each others.

DISCUSSION

Considering the smoking habits of the nurses participating in the study, the rate of people who never smoked was 54.4%. It was also found that smoking rate in the workplace was 27.7%, 34.6% at home and 30.0% outdoors. However, it was found in (15)'s study that 54.4% of the participants smoked and they smoked mostly (59.4%) in the workplace. Work stress and the presence of smokers at work suggested that smoking increased at work. It was found in the present study that the proportion of women who never smoked was higher than that of men. The number of women who smoke was found to be lower than men. These findings are consistent with (16)'s study which included health care workers found that the number of smoking men was higher. This situation may be associated with the fact that women typically avoid risky behaviors.

The examination of the differences between the SF-36 scale averages in terms of age group showed that there was a significant difference among all subscales. The average PF score decreased as the age level increased. In a study conducted on nurses in China, age were the main risk factors for lower quality life (10). In a study, there was a moderate negative correlation between the age of the nurses and their general health scores; It was determined that general health deteriorated as the working year increased in correlation with

age. In addition, there was a moderate negative correlation between age and social function (17). In this study, the emotional state decreased as the age level increased, similar to PF. As the age of individuals increased, their duties and responsibilities in the family and the time they spend in the hospital also increased. As a result of this situation, it was thought that they could not devote much spare time to themselves for physical and mental development and relaxation.

When we compare the effect of marital status in sub scales of SF-36, all subscales were found to be significantly different. In all of the subscales, the scores of the single participants were found to be significantly higher than married ones. On the contrary, In the study conducted by Yıldırım and Hacıhasanoğlu, social domain scores of married people were statistically higher than singles, and the researcher concluded that that marriage provides continuous social support (9). This study suggested that the high scores of singles may be as a result of the fact that their responsibilities are less than married ones, and they have more time for them.

When the SF-36 subscale averages were examined according to the number of children the participants had, a significant difference was found in all of subscales ($p < 0.05$). As the number of children increased, the average scores of all subscales decreased. The increase in the number of children means that individuals have been working in the profession for longer years and their age levels increase. Even if the years of working in the profession do not increase, the nurses who take the role of mothers at home are more tired.

When the subscale groups were compared according to sex, no significant difference was found between GH and MH. A significant relationship was found between the subscale groups and RP, PF, SF, BP, RE, VT. Contrary to our study, there are also studies reporting high quality of life indicators in women (18). Gender perception varies from region to region and affects women's lifestyle. This difference is also reflected in the quality of life.

When SF-36 subscale groups were compared according to the status of the nurses, a significant difference was found between PF, RP, SF, BP, RE, VT subscales. Aksungur evaluated the quality of life scores of midwives and nurses according to the type of work and found that the quality of life scores of permanent employees were statistically higher than those working on a contract basis in the pain category (19). Variables that occur with the status worked can affect the quality of life. More research should be done on this subject.

There was no significant difference between MH, RE and GH scores according to working hours. In addition, a significant difference was found in five subscales including PF, RP, SF, BP, and VT. In Günüşen and Üstün's study on work-related burnout of employees, it was determined that the most important variable was working hours, shift method or shift work (19). When SF-36 subscale was compared according to the number of night shift kept monthly, a significant correlation was found in MH and BP scales. While the MH score average was highest in non-seizures, the MH average decreased as the number of night shift increased. It can be thought that as the number of night shifts increase, the mental effects of people increase after a certain period of time. In the study conducted by Durmuş and Günay, 22.5% of the participants working in shifts stated that they felt depressed (20). Similarly, 87.2% of the nurses in Yeşilçiçek et al.'s study that stated that working hours had one or more negative effects on their psychological health (21). The increase in working hours and working at night can affect human physiology and cause fatigue and therefore lower quality of life subscales.

The economic levels of individuals affect human life mentally and physically. When the subscale groups were compared economically, a significant difference was found in all of the available subscales. In the present study, the lower the economic situation among the participants, the lower results were found in all subscales. Baum et al. stated that socioeconomic status is an important indicator of health and diseases, and that low socio-economic status is associated with increased mental illness (22). In Sahin's study, significant

differences were not found between the averages of the subscales with regard to the economic level (17). It was thought that the effect of the economic situation on the quality of life may vary according to the place where the study was conducted.

CONCLUSION

It was concluded, as a result of the study, that the year worked, age, the number of children and income increased, the quality of life scores were falling. Due to the decrease in quality of life scores as the working time increases, it is necessary to reconsider the number of hours of shift, shift times, shifts, etc., in order to improve the life quality of the nurses. International and national regulations should be examined, the preferences of the people should be investigated and necessary regulations should be made.

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