

## Relationship between mental fatigue and quality of life with psychological well-being of nurses in hospitals

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### Abstract

**Background and objective:** The purpose of this study was to investigate the relationship between mental fatigue and quality of life with psychological well-being of nurses.

**Method:** The research method was descriptive-correlational. The statistical population of the study consisted of all nurses of public hospitals in Abhar city during 2019-2020 among them 190 nurses were selected by random sampling method and Estes (1996) mental fatigue questionnaire. Data were analyzed using Pearson correlation coefficient and regression analysis.

**Results:** The results showed that there is a significant positive relationship between quality of life and its components with psychological well-being and a negative significant relationship between mental fatigue and psychological well-being. Also, the results of regression analysis revealed that almost 71% of the variance of nurses' psychological well-being was predictable based on the variables of quality of life and mental fatigue ( $p < 0.01$ ).

**Conclusion:** Therefore, it can be concluded that quality of life and mental exhaustion are variables related to psychological well-being, which requires attention of hospital authorities towards these variables.

**Keyword:** Quality of Life, Mental Fatigue, Psychological Well-being, Nurses.

### Background and objective

Human resources is the most important asset of organizations and the higher and better the quality of this asset, the more are the success, chance of survival and promotion of that organization (Ghezavati, Zeighami, Sarichloo and Shahsavari, 2019). The work environment includes several stimuli, each of which can cause stress in employees. Medical team members experience high levels of stress in their workplace<sup>1</sup>.

Since nurses are also a part of this large team, stressful factors can be considered a psychological or even psychosocial threat to them<sup>2</sup>. Nursing is a stressful profession in which factors such as work difficulty, rotating shifts and night shifts, dealing with patients in poor and life-threatening condition and lack of equipment can cause stress for them<sup>3</sup>. Today, there are many psychological tensions that cause unhappiness and dissatisfaction and reduce psychological well-being<sup>4</sup>.

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Psychological well-being means comfort and happiness, and means achieving full mental potential, and is defined as the science of happiness and life satisfaction<sup>5</sup>. Also, psychological well-being means feeling good and having effective performance. Browne et al.<sup>6</sup> in a study entitled "Psychological well-being in the promotion of early treatment" concluded that psychological well-being is one of the effective factors in improving treatments and has a special role in various aspects of life.

One of the factors that can affect psychological well-being is quality of life. According to the World Health Organization's Quality of Life Group, Quality of life is an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging affected in a complex way by the person's physical health, psychological state, level of independence, social relationships and their relationships to salient features of their environment. So far, the effect of factors such as gender, intelligence, spiritual needs, personality, health of oneself and others, leisure activities, work and social life, family, relatives and objective and demographic characteristics have been studied. Quality of life always includes 5 dimensions which are: 1) physical dimension, 2) social dimension, 3) psychological dimension, 4) spiritual dimension and 5) symptoms related to the disease or changes related to treatment<sup>8</sup>. Jafari, Khaleghkhah, and Gharibzadeh<sup>9</sup> in a study entitled "The mediating role of work ethics and job support in the relationship between psychological well-being and quality of the professional life of nurses: structural equation modeling" concluded that the direct effect of psychological well-being variable

on work ethics is positive and significant; The direct effect of psychological well-being variable on job support is positive and significant and the direct effect of work ethics variable on quality of professional life is positive and significant. Also, the direct effect of job support variable on quality of professional life was significant and there was a significant and indirect effect between psychological well-being and quality of professional life. Nasiri Zarrin Ghobai et al.<sup>10</sup>, in an article entitled "Quality of life and its relationship with job stress in nurses" studied the nurses working in hospitals in Sari, the study showed that the increase in job stress of nurses has a negative effect in some aspects of their quality of life. Therefore, nursing managers should be aware of the results of this study, and should try to reduce job stress by establishing proper communication with nurses and supporting them in order to reduce physical needs, psychological stress and employee participation in decision-making, which in turn increases the quality of work and quality of life in nurses. Garg<sup>11</sup> in his study concluded that a high quality of life in the workplace can improve employee psychological satisfaction.

Therefore, another factor that is related to psychological well-being is mental fatigue. Mental fatigue refers to the tiredness of the body or soul due to stress, working too much, overusing medicine, or illness, and can be caused by prolonged working hours, excessive heat or cold, a decrease or increase in brightness, irregular or lack of sleep, physiological and neurological disorders, etc.<sup>12; 13</sup>.

The important point is that mentally tired people often find it difficult to maintain attention and concentration and they are easily distracted, which indicates the effects of mental fatigue on the amount of attention. When a person gets tired, it becomes more difficult for him to stay

focused on his work<sup>14</sup>. Now, nurses are one of the most important pillars of the medical department who, according to their job status, are responsible for important tasks such as taking mental, psychological and physical care of the patients. The above activities, if not following the principles of safety and peace and workplace well-being, can play an important role in the occurrence of physical and mental disorders in this group. It can also cause economic, social, personal, psychological and mental problems and lead to a decline in personal performance and seriously impair the quality of life and psychological well-being of many nurses<sup>10</sup>. Mohammadi, Fooladi and Nematpour<sup>14</sup> in a study entitled "Studying mental fatigue and its effect on the performance of medical school staff using electroencephalography waves" concluded that brain waves decreased during the experiment, which indicates an increase in mental fatigue. In the present study, EEG waves recorded in the first and last 15 minutes were  $213.59 \pm 13.98$  and  $68.77 \pm 68.21$ . Participants in this study reported their fatigue by KSS, which based on the results, their performance decreased from  $27.4 \pm 3.53$  to  $17.5 \pm 5.19$ . Khani Jazani et al.<sup>15</sup>, in an article entitled "Study of the relationship between fatigue and the severity of medical errors in nurses of a teaching hospital", showed that fatigue, whether physical, mental or emotional, leads to medical errors in the hospital staff and reduces their general health. 7.4% of nurses are absent every week due to mental and physical fatigue or physical disability caused by work, which is 80% more than other professional groups working in the hospital, and these factors are related to their quality of life and can disrupt their lives and is one of the factors reducing psychological well-being among staff and nurses.

According to the mentioned factors, this study seeks to answer the question: is there a

relationship between mental fatigue and quality of life with psychological well-being of female nurses? And do these variables contribute to predicting the psychological well-being of female nurses?

## Method

This practical research has a descriptive correlational design, based on which the relationship between mental fatigue and quality of life as predictor variables with psychological well-being of nurses as a criterion variable has been investigated. The statistical population of the present study included all female nurses in public hospitals in Abhar. Since the sample size for correlation studies is at least 25 to 30 people for each predictor variable, in this study, to increase the external validity by random sampling method, a sample size of 200 people was considered, the questionnaire of 190 of which was analyzable.

## Research tools

Psychological Well-being Questionnaire: In this study, the Ryff Psychological Well-being Questionnaire was used to measure mental well-being. This questionnaire was designed by Ryff in 1989. In this research, its 18-item version has been used. At this scale, the answer to each question is determined on a 7-point scale from strongly disagree to strongly agree. This scale includes 6 subscales of self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life and personal growth. The minimum score on this scale is 18 and the maximum is 108. Ryff (1989) reported the internal reliability coefficient (Cronbach's alpha) of the subscales as follows: self-acceptance 0.93; Positive relations with others 0.91; Autonomy 0.86; Environmental mastery 0.90; Purpose in life 0.90; Personal growth 0.87. Mikaeli Mani (2010) has also reported the internal consistency reliability

coefficient of the test above 0.70. In another study, Koochaki and Bayani (2008) reported the internal reliability of this test as 0.82 and its correlation with life satisfaction scale, Oxford Happiness Questionnaire and Rosenberg Self-Esteem Scale as 0.47, 0.58 and 0.46. Also in 2012, the Kalantarkooshe and Navarbafi standardized the Ryff Psychological Questionnaire in a population of 860 people, with a reported alpha of 0.92. It should be noted that the Ryff questionnaire was first translated into Persian and translated into English for the second time after corrections. The translated version was then matched with the original.

**The World Health Organization Quality of Life Questionnaire - Short Form:** This 26-item questionnaire was developed by the World Health Organization in 1996 and has been reviewed in various countries. With 24 questions, this tool measures the positive and negative aspects of quality of life in the four main areas of physical health, psychological health, social relations and living environment's health. These dimensions have 7, 6, 3 and 8 questions, respectively. The first two questions do not belong to any of the dimensions and assess the state of health and quality of life in general. The scoring of the questions is based on Likert's 5-point scale (from strongly agree to strongly disagree), with a score of 1 indicating a negative and low perception and a score of 5 showing a positive and high perception. Its content validity was confirmed and its reliability in the study of Varney et al. (2004) was obtained 0.71 by Cronbach's alpha method. Psychometric characteristics of the Iranian version of this questionnaire have shown that this questionnaire can be used in Iranian culture. In Persian language, the reliability coefficient of retest in two weeks in four dimensions was 0.75 to 0.84 (Razavizadeh Tabadakan and Shareh, 2015).

### Mental Fatigue Questionnaire:

Multidimensional Fatigue Inventory (MFI) Questionnaire was developed by Smets (1996) which consists of 20 items and 5 subscales of general fatigue (4 questions), physical fatigue (4 questions), decreased activity (4 questions), decreased motivation (4 questions) and mental fatigue (4 questions) which are used to measure fatigue. The scoring of the questionnaire is in the form of a 5-point Likert scale from 1 = yes, is completely correct to 5 = no, is completely incorrect. Yes, is absolutely right 1 2 3 4 5 No, is completely wrong. Items 2, 5, 9, 10, 13, 14, 16, 17, 18 and 19 are scored in reverse and are done as follows. Yes, is absolutely right 5 4 3 2 1 No, is completely wrong. To get the total score of the questionnaire, add the scores of all the items together. The total score of each domain is 4-20 and the total score of fatigue that is determined by the sum of the scores of the domains can be between 20-100. A higher score indicates more fatigue. The validity and reliability of this questionnaire were evaluated in different demographic groups, such as cancer patients undergoing radiotherapy, patients with chronic fatigue syndrome, first year psychology and medical students, soldiers and third year medical students. Confirmatory factor analysis showed that the questions of each dimension were descriptive of the same dimension and the questionnaire has a good internal consistency (alpha coefficient for general, physical and mental fatigue was higher than 8% and for decreased activity and motivation was higher than 65%). The content validity of the questionnaire was confirmed and its reliability was reported to be 0.87 (Fritsch et al., 2012). The results of other studies also confirm the appropriate reliability and validity of this tool. This questionnaire has been translated into Persian and its reliability and validity have

been confirmed (Khani Jazani et al.<sup>15</sup>, 2012). In the study of Chehre Gosha et al. (2013), the overall mean score of fatigue in patients was  $54.65 \pm 8.78$  out of 100 points, the score obtained in the areas were: general fatigue  $9.98 \pm 2.31$ , physical fatigue  $11.66 \pm 2.79$ , mental fatigue  $10.72 \pm 2.84$ ,

decreased activity  $10.86 \pm 2.18$ , decreased motivation  $11.42 \pm 2.57$ .

## Results

Among female nurses participating in this study, 124 (65.3%) were single and 66 (43.7) were married.

**Table 1.** Descriptive statistics on psychological well-being of female nurses

Variables	Mean	Standard deviation
Psychological well-being of nurses	93.27	12.43
Physical quality	16.56	0.28
Psychological quality	15.96	0.40
Social quality	7.37	0.21
Environment quality	20.17	0.39
Quality of life	77.63	7.29
Mental fatigue	38.40	3.47

As can be seen in Table 1, the standard deviation of psychological well-being of female nurses is 93.27 and 12.43, respectively. The mean and standard deviation of quality of life (total) of female nurses are 77.63 and 7.29, respectively. Also, the mean and standard

deviation of mental fatigue of female nurses are 38.40 and 3.47, respectively.

Hypothesis 1: There is a relationship between mental fatigue and psychological well-being of female nurses.

**Table 2.** Correlation coefficients between mental fatigue and psychological well-being of female nurses

Variables	Mental fatigue	Psychological well-being
Mental fatigue	1	
Psychological well-being	-0.38**	1

P < 0.01\*\*

As can be seen in Table 2, there is a significant negative relationship between mental fatigue and psychological well-being of female nurses ( $r = -0.38$ ,  $P < 0.01$ ).

Hypothesis 2: There is a relationship between quality of life and psychological well-being of female nurses.

Table 3: Correlation coefficients of quality of life with psychological well-being

Variables	Physical quality	Mental quality	Social quality	Environment quality	Quality of life	Psychological well-being
Physical quality	1					
Psychological quality	0.55	1				
Social quality	0.59	0.59	1			
Environment quality	0.49	0.56	0.63	1		
Quality of life	0.67	0.58	0.76	0.57	1	
Psychological well-being	0.63	0.62	0.68	0.64	0.62	1

P < 0.01\*\*

As can be seen in Table 3, there is a positive significant relationship between the physical quality subscale and nurses' psychological well-being ( $r=0.63$ ,  $P<0.01$ ), between the psychological quality subscale and nurses' psychological well-being ( $r=0.62$ ,  $P<0.01$ ), between social quality subscale and nurses' psychological well-being ( $r=0.68$ ,  $P<0.01$ ), between environment quality subscale and nurses' psychological well-being ( $r=0.64$ ,  $P<0.01$ )

and between the quality of life variable (total score) and psychological well-being of nurses ( $r=0.62$ ,  $P<0.01$ ).

Hypothesis 3: Mental fatigue and quality of life can predict the psychological well-being of female nurses.

Approximately 71% of the variance in psychological well-being of female nurses is predictable based on the variables of mental fatigue and quality of life.

Table 4. Analysis of variance of regression model to predict the psychological well-being of female nurses

Source of changes	Sum of squares	Df	Mean square	F	Sig
Regression	15643.20	7	2234.74	48.60	0.001
Remaining	6529.63	142	45.98	-	-
total	22172.83	149	-	-	-

As can be seen in Table 4, the F ratio indicates that the psychological well-being regression of nurses is significant based on

the variables of mental fatigue and quality of life.

**Table 5.** Beta coefficients and significance test t for predictor variables

Criterion variable	Predictor variables	B	STE	$\beta$	T	Sig
Psychological well-being	Fixed amount	31.871	16.866	-	1.890	0.061
	Physical quality	0.141	0.051	0.146	2.757	0.007
	Psychological quality	0.119	0.036	0.170	3.319	0.001
	Social quality	0.247	0.079	0.148	3.107	0.002
	Environment quality	0.679	0.204	0.200	3.324	0.001
	Quality of life	0.503	0.224	0.142	2.250	0.026
	Mental fatigue	-1.134	0.349	-0.200	-3.251	0.001

As shown in Table 5, the positive physical quality subscale with beta of 0.146 ( $P < 0.01$ ,  $T = 2.757$ ), the psychological quality subscale with beta of 0.170 ( $P < 0.05$ ,  $T = 3.319$ ), social quality subscale with beta of 0.148 ( $P < 0.01$ ,  $T = 3.107$ ) and environment quality subscale with beta of 0.200 ( $P < 0.05$ ,  $T = 3.324$ ), Quality of life variable with beta of 0.142 ( $P < 0.05$ ,  $T = 2.250$ ), in a positive and significant way, and mental fatigue variable with beta of -0.220 ( $P < 0.05$ ,  $T = -3.251$ ) in a negative and significant way, can predict the psychological well-being of female nurses.

## Discussion

The aim of this study was to investigate the relationship between mental fatigue and quality of life and psychological well-being of female nurses.

The first finding of the study showed that there was a significant negative relationship between mental fatigue and psychological well-being of female nurses. Thus, the first hypothesis was confirmed. The result of the present study is in line with the findings of Mohammadi et al.<sup>14</sup>, Khani Jazani et al.<sup>15</sup>.

In the present explanation, it can be stated that mental fatigue refers to the fatigue of the body or soul due to stress, working too much, excessive drug use or illness, and its causes can be long working hours, extreme heat or cold, decreased or increased

brightness, lack of and irregular sleep, physiological and neurological disorders and other cases<sup>12; 13</sup>.

The important point is that mentally tired people often find it difficult to maintain focused and concentrated and they are easily distressed and distracted, which indicates the effects of mental fatigue on the amount of attention. When a person gets tired, he finds it more difficult to stay concentrated and focused on work. Nurses are one of the most important pillars of the medical department who, according to their job status, are responsible for important tasks such as taking mental, psychological and physical care of the patient. The above activities in case of non-compliance with safety principles and lack of peace and work place well-being play an important role in the occurrence of physical and mental disorders that lead to human error in this group of people<sup>13</sup>.

Human error among nurses leads to reduced organizational productivity. It can also cause economic, social, personal, psychological and mental problems and lead to a decline in individual performance and the quality of life and psychological well-being of many nurses<sup>16</sup>, all of which affect the productivity of organizations and reduce nurses' job satisfaction and the efficiency of organizations<sup>17</sup>.

The nature of the nursing profession requires a high level of attention and concentration in taking care of patients. Therefore, mental fatigue among nurses leads to increased burnout, which reduces psychological well-being in them. Therefore, it is natural that the change in the level of mental ability is related to the change in the type and quality of medical error, so that the decrease in attention and concentration leads to quasi-error turning into errors or errors having no noticeable effects on the patient leading to an increase in patient's hospitalization duration or transfer to intensive care unit and other departments. In fact, it can be said that when nurses feel mentally tired in their organizational environment, it leads to a negative view of their job and causes burnout and job dissatisfaction in them, job dissatisfaction in nurses leads to a decrease in productivity and work efficiency of nurses, which all factors lead to a decrease in psychological well-being and mental health of nurses in their organizational environment.

The second finding of the study showed that there was a significant positive relationship between the quality of life and psychological well-being of nurses. Thus, the second hypothesis was confirmed. The result of the present study is consistent with the findings of Jafari, Khaleghkhah and Gharibzadeh<sup>9</sup>, Nasiri Zarrin Ghobai et al.<sup>10</sup>, and Garg<sup>11</sup>.

In the explanation of the present finding, it can be stated that the quality of life in the organizational environment is affected by the individual's physical health, psychological status, level of independence, social relations and their relationship with salient factors in their organizational environment. These studies showed that quality of life has an effect on the coordination of interpersonal relationships, comfortable life, mental and personal health,

overcoming limitations and achieving control and reduction of pain and suffering and in general psychological well-being in the organizational environment. Also, according to Wilner's<sup>18</sup> studies in positive psychology, life satisfaction, well-being and high quality of life in the workplace are usually considered to be effective in increasing mental health and psychological well-being. Welfare measures provide an opportunity to discover happiness, healthy and successful living, and a positive sense of life. In fact, the high quality of life in the industrial and organizational environment makes employees feel more comfortable and secure in that organization and have a higher commitment to what they do in that organization and not feel worn out in their job and these factors lead to an increase in psychological well-being at work in the industrial and organizational environment of working nurses.

If a person working in the organizational environment really feels that his or her quality of professional life has improved, whether it is his or her own work performance or the policies adopted by the organization to increase profits, this will give employees more power in the organization to do their job. The natural result of this process is to create an active life force and atmosphere within the group or organization. It increases productivity beyond the expected results, and this itself causes more motivation for better work and as a result, causes more psychological well-being in individuals. We can also realize that in general, nurses with a good quality of professional life can achieve psychological well-being by establishing stronger social networks, social support, emotional stability, predicting desirable goals in the future and effective adaptation to environmental and organizational stressors achieve an acceptable psychological well-being. Meaning that nurses who experience a high



quality of life in the workplace, find a positive mentality in relation to their work and organizational environment, which causes them to gain high vitality, which makes these nurses have a positive image of themselves and their abilities. This positive perception can increase nurses' self-awareness and help nurses to experience high psychological health<sup>19</sup> and thus energize themselves and others with more vitality in the organization.

Quality of life in the workplace is the well-being and overall satisfaction of employees and staff in terms of positive and negative experiences that are rooted in activities in the environment<sup>20</sup>. These positive and negative experiences that form the general perception of nurses about their comfort, well-being and overall satisfaction with life in the workplace and organization and indicate the level of satisfaction of nurses with their daily life in the hospital and workplace. The higher the satisfaction of nurses with their job, the more positive will be the mentality is formed in the minds of nurses towards the hospital and their activities. This positive mentality can be the basis for more time spent by nurses, their greater commitment to their job and related activities and in fact provide the vitality and desire of nurses to perform professional activities and day-to-day progress in the job. In fact, high level of these factors leads to nurses' job satisfaction, which predicts high psychological well-being. Considering the relationship between mental fatigue and nurses' psychological well-being, it is recommended to pay more attention to leisure time and how nurses use leave at appropriate times. Considering the quality of life and its dimensions and its relationship with psychological well-being, it is recommended that these dimensions be analyzed in the nurses' work environment according to their needs and deficiencies in this regard should be reviewed and

revised. Each research faces limitations and one of the limitations of the present study is its limitation to a specific geographical area (Abhar city) which makes it more cautious in generalizing the results. Also, limiting the sample of the present study to nurses of public hospitals and female nurses is another limitation of the present study. Therefore, it is suggested that such research be conducted in other geographical areas and on male nurses and that the two groups be compared with each other.

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#### **Conflict of interests**

None.

#### **Authors' contributions**

The authors are the same

#### **References**

1. Koy V, Yunibhand J, Angsuroch Y, Fisher M. Relationship between nursing care quality, nurse staffing, nurse job satisfaction, nurse practice environment, and burnout: literature review. *Int J Res Med Sci.* 2015;1825-31.
2. Konstantinos N, Christina O. Factors Influencing Stress And Job Satisfaction Of Nurses Working In Psychiatric Units: A Research Review. *Health Sci J.* 2008;(24).
3. Wang Y, Liesveld J. Exploring Job Satisfaction of Nursing Faculty: Theoretical Approaches. *J Prof Nurs.* 2015; 31(6):482-92.
4. Gerber M, Jonsdottir IH, Lindwall M, Ahlborg G. Physical activity in employees with differing occupational stress and mental health profiles: A latent profile analysis. *Psychol Sport Exerc.* 2014;15(6):649- 58.

5. Yadav G. Parenting and Healthy Family Structure: Red'shine Book Publication 2017.
6. Browne, J., Penn, D. L., Meyer-Kalos, P. S., Mueser, K. M., Estroff, S. E., Brunette, M. F., Correll, C. U., Robinson, J., Rosenheck, R. A., Schooler, N., Robinson, D. G., Addington, J., Marcy, P., & Kane, J. M. [Psychological well-being and mental health recovery in the NIMH RAISE early treatment program](#). Schizophrenia Research, In Press, Corrected Proof, Available online 29. 2016.
7. WHO. "Study Protocol for the World Health Organization Project to Develop a Quality of Life Assessment Instrument (WHOQOL)". Qual. Life Res. 2015; 2 (2): 153-159.
8. Nejat, S. Quality of life and its measurement. Iranian Journal of Epidemiology. 2008; 4(2), 10-1. [Persian]
9. Jafari, I; Khaleqkhan, A & Gharibzadeh, R. The mediating role of professional ethics and job support in the causal relationship between psychological well-being and quality of work life of nurses: Structural equation modeling. Clinical Journal of Nursing and Midwifery. 2017; 6 (4), 66-78. [Persian]
10. Nasiri, D; Talibpour, F; Hosseini, M & Rajabzadeh, R. Quality of life and its relationship with job stress in nurses working in hospitals in Sari. Journal of Nursing Education. 2016; 5(2), 48-40. [Persian]
11. Garg N. Workplace Spirituality and Organizational Commitment An Empirical Exploration Administrative Officer, The Oriental Insurance Company Limited, Haryana, India. Purusharta. 2018;(2):8-24.
12. Wright RA, Stewart CC, Barnett BR. Mental fatigue influence on effort-related cardiovascular response: Extension across the regulatory (inhibitory)/ non-regulatory performance dimension. International Journal of Psychophysiology. 2008 Aug 1;69(2):127-33.
13. Halvani Gh, Baghiani moghadam M H, Rezaei MH. Fatigue situation in tile industries workers. Iran Occupational Health Journal. 2007;4:57-63. [Persian]
14. Mohammadi, A; Foladi Dehghi, B & Nematpour, L. Evaluation of mental fatigue and its effect on the performance of health school staff using electroencephalography waves, Occupational Health Engineering. 2019; 5 (4), 49-41. [Persian]
15. Khani Jazani, R; Saremi, M; Kavusi, A; & Shirzad, Hadi; R, Tara. Investigating the different dimensions of fatigue in traffic police officers. Disciplinary Medicine, First Year. 2012; 91(1); 1-10. [Persian]
16. Ghezavati, Z; Zeighami, R; Sarichloo, M & Shahsavari, S. The effect of teaching cognitive emotion regulation strategies on psychological well-being of nurses working in psychiatric wards, Journal of Psychiatric Nursing. 2020; 7 (4), 73-64. [Persian]
17. Joslin, LE., Devis, CR., Dolan, P., Clark, EM. Quality of life and neck pain in nurses. In J Occup Med Environ Health. 2014; 27(2): 236-242.
18. Viteles, M. S. Industrial Psychology. New York: Norton. 2011.
19. Dashti, I; Salehi, K & Karami, A. Quality of school life and its impact on predicting students' emotional intelligence. Quarterly Journal of Educational Leadership and Management. 2015; (2) 10, 51. [Persian]
20. Wang, M. T. & Holcombe, R. Adolescents' perceptions of classroom environment, school engagement, and

academic achievement. *American Educational Research Journal*. 2010; 47, 633–662.

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