https://doi.org/10.55453/rjmm.2023.126.2.9
The article was received on November 22, 2022, and accepted for publishing on February 17, 2023.

Original Article

Relationship between Mental Health, Life Satisfaction, and Job Satisfaction of Nurses

Masoumeh Otaghi[1,2], Arman Azadi[1], Kourosh Sayehmiri[2], Nastaran Nikeghbal[3]

[1] Department of Nursing, Ilam University of Medical sciences, Ilam. Iran
[2] Psychological Injuries Research Center, Ilam Universality of Medical Sciences, Ilam, Iran
[3] Faculty of Nursing and Midwifery, Ilam University of Medical Sciences, Ilam. Iran

Correspondence: Nastaran Nikeghbal, nastarannikeghbal@gmail.com

Abstract: *Improving the mental health of nurses and investigating the factors affecting it leads to the improvement of job performance and the quality of nursing care. Aim: The present study aimed to determine the relationship between mental health, life satisfaction, and job satisfaction of nurses in Ilam city in 2022. The present correlational study was carried out on 160 nurses working in educational hospitals of Ilam city and was selected by stratified random sampling in 2022. A four-part questionnaire was used: the first part included a question on demographic information. Minnesota Satisfaction Questionnaire (MSQ) (1977), Diener et al.'s Satisfaction with Life Scale (SWLS) (1985), and Derogatis et al.'s Symptom Checklist-90 (SCL-9) (1973) were included in the second, third and the fourth parts, respectively. Results showed no significant relationship between the total score of mental health and the total score of job satisfaction. There was a significant relationship between the total job satisfaction score and life satisfaction score (r=0.267, p=0.001). There was also an inverse and significant relationship between the total mental health score and the life satisfaction score (r=0.294, p=0.001). The collected data was analyzed using descriptive tests (frequency, mean percentage, and standard deviation) and non-parametric Spearman and Kruskal-Walli's correlation tests in SPSS ver. 22. P-value<0.05 was considered as the significance level in all tests. Job satisfaction is effective in creating motivation, efficiency, responsibility, and social accountability in the personnel of any organization. Job dissatisfaction can lead to complications such as job burnout, illness, absenteeism, the job left, leaving many nursing jobs, and the reluctance of the young workforce to attend the wards. Therefore, it is necessary to make further efforts in this field by healthcare policymakers.*

Keywords: *mental health, life satisfaction, job satisfaction*

INTRODUCTION

Mental health has an expanded definition. But every person who can deal with his/her deep issues, get along with him/herself and others, and can face his/her inevitable internal conflicts, and does not isolate him/herself from society, can be stated to have mental health [1-4]. Nurses are directly related to all social strata and touch people's problems closely. This close relationship doubles their serious responsibility toward people's health [5]. Nursing is one of the most stressful professions so the National Institute for Occupational Safety & Health has introduced it among the top 40 stressful professions [6].

There are many sources of occupational stress in the nursing work environment. Overwork, urgency, patient death, independent practice, lack of social support, poor job fit, lack of necessary specialized knowledge, unsafe workplace and rapidly changing healthcare environment are known as nursing stressors [7]. Nurses are prone to health threats in different dimensions due to long work shifts and the resulting fatigue. Nurses with no good general health are not able to provide good care such as physical and psychological support to patients. This increases the risk of mistakes and occupational accidents, and subsequent consequences affect the patient and the nurse [8].

Nurses' stress and fatigue can affect the vital and critical aspects of their performance, including problem-solving ability, decision-making ability, and creativity, and ultimately lead to disruption in medical care. Because patient safety, health and recovery depend on the safe and optimal performance of nurses [9]. Many researchers have confirmed that job-related stress can have harmful effects on the physical and mental health of individuals [10,11]. Job stress is one of

the factors affecting the health of employees. Employees' health is at risk when they face various stressors. This issue is more evident in the nursing profession [12]. The impact of job dissatisfaction on the mental health of employees has been a public concern in various societies, especially in recent years. Perceived impacts of job dissatisfaction on people's mental health from an economic point of view is also an important issue and play an important role in the quality of professional and personal life of nurses [13].

Another variable that plays a key role in improving nurses' mental health is life satisfaction. Life satisfaction is one of the mental health-related factors and refers to a person's general attitude and evaluation toward life as a whole [14]. It also reflects the balance between a person's aspirations and his/her current situation. The greater this balance, the greater the life satisfaction will be [7]. According to previous studies, this concept is in full interaction with health and there is a close relationship between physical and mental health with life satisfaction [15]. Lyubomirsky believes that people who have higher life satisfaction, use more effective and appropriate coping methods, experience deeper positive emotions and feelings and have higher general health [16]. Nurses are among the vulnerable employees of society, whose health and balance in their personal and family life is related to occupational variables. Work-family conflict causes psychological symptoms such as higher stress, depression, chronic physical problems, increased physical complaints, lower life satisfaction, low quality of family life, and low energy levels [17]. Suzuki et al. stated that nurses were in 27th place in the evaluation of 130 stressful jobs sorted according to their reference to doctors for health problems [18].

Improving the mental health of nurses and investigating the factors affecting it leads to the improvement of job performance and the quality of nursing care. Since nursing is one of the sensitive professions and nurses spend an important part of their lives with people and patients, their mental health leads to optimal job performance and guarantees the health and improvement of many patients and people [19].

Having job satisfaction, life satisfaction and mental health leads to an improvement in the quality of patient care and increasing productivity and improving nursing services, therefore, conducting relevant studies and using their results in various aspects of the nursing profession can have useful results in care, education, management, therapy and also the personal life of a nurse [20]. Therefore, the present study aimed to determine the relationship between mental health, life satisfaction, and job satisfaction of nurses in Ilam city in 2022.

MATERIALS AND METHODS

The present correlational study was carried out on 160 nurses working in educational hospitals of Ilam city and was selected by stratified random sampling in 2022. Inclusion criteria included working in one of the above-mentioned educational hospitals and having informed consent to participate in the study. Failure to complete one of the questionnaires, an incomplete questionnaire, and unwillingness to cooperate were among the exclusion criteria. A four-part questionnaire was used: the first part included a question on demographic information. Minnesota Satisfaction Questionnaire (MSQ) (1977), Diener et al.'s Satisfaction with Life Scale (SWLS) (1985), and Derogatis et al.'s Symptom Checklist-90 (SCL-9) (1973) were included in the second, third and the fourth parts, respectively. Demographic information of nurses included age, gender, years of work experience, marital status, education level, hospital, ward, position, income level, employment status, number of children, and home type.

Minnesota Satisfaction Questionnaire (MSQ) consists of 19 items and 6 subscales of the payment system, type of job, achievement opportunities, organizational atmosphere, leadership style, and physical conditions. MSQ is scored based on a 5-point Likert scale, ranging from "Completely Disagree" (Score 1) to "Completely Agree" (Score 5). To calculate the overall score of the questionnaire, the scores of all the items are added together. Scores 19-38, 38-57, and 38-57 indicate poor, moderate, and very good job satisfaction, respectively. This questionnaire has been used in many types of research in the world [21-26]. Its internal consistency reliability was measured $\alpha = 0.87$.

Diener et al.'s Satisfaction with Life Scale (SWLS) is a 5-item instrument designed to measure a person's cognitive and overall judgment of life. This instrument is scored based on a 7-point Likert scale ranging from 1 (Completely disagree) to 7 (Completely agree). The overall score of this scale is calculated by summing the answers and the possible score range is 5 and 35. A higher score indicates higher levels of life satisfaction. This questionnaire has also been used in many types of research in the world [27-32]. The Cronbach's α reliability was 0.86.

Derogatis et al.'s Symptom Checklist-90 (SCL-9) can be completed within approximately 25 minutes. This questionnaire is the short form of SCL-90 and was extracted by Najarian & Davoudi based on the original form and through exploratory factor analysis. It consists of 25 items and 9 subscales of somatization (6 questions), obsession-compulsion (3 questions), interpersonal sensitivity (3 questions), depression (2 questions), anxiety (3 questions), phobia (3 questions), paranoid thoughts (1 question), psychosis (3

questions), hostility (1 question). SCL was answered according to its original form and based on a 5-point Likert swale ranging from None or Rarely (0), A little (1), To some extent (2), A lot (3), Very much or Strongly (4). The overall score of general psychological injuries was extracted. Higher scores indicate more damage [30]. The Cronbach's alpha reliability of the tool was calculated $\alpha = 0.94$.

The collected data was analyzed using descriptive tests (frequency, mean percentage, and standard deviation) and non-parametric Spearman and Kruskal-Walli's correlation tests in SPSS ver. 22. P-value<0.05 was considered as the significance level in all tests.

Ethical considerations: The present study was approved by the Ethics Committee of Ilam University of Medical Sciences with the code IR.MEDILAM.REC.1400.229. The contents of the Nuremberg and Helsinki declarations and the 26 research ethics codes were observed.

RESULTS

The results showed that most of the participants were female (61.2%), aged 26-29 (40%), single (52.5%), childless (75%), owning their own house (72.5%), and had 6-10 million-toman income (70%). Also, the majority of participants had a bachelor's degree (88.8%), less than 6 years of work experience (70%), were ward nurses (91.2%), were permanent nurses (45%), and worked in ICUs (45%).

Table 1 shows the correlation matrix of job satisfaction, life satisfaction, and mental health. This table determines the relationship between job satisfaction, life satisfaction, and mental health of research subjects. The table shows no significant relationship between the total score of mental health and the total score of job satisfaction. There was a significant relationship between the total job satisfaction score and life satisfaction score (r=0.267, p=0.001). There was also an inverse and significant relationship between the total mental health score and the life satisfaction score (r=0.294, p=0.001).

Kruskal-Walli's test shows the relationship between job satisfaction, life satisfaction, and mental health according to demographic characteristics (Table 2). This table shows that the highest frequency of the variables of work experience, education level, medical training center, hospital ward, income level, and employment status are related to less than 3 years (p=0.017, df=4, k=11.98), BA (p=0.014, df=1, k=6.07), Ayat-Allah-Taleghani hospital (P=0.004, df=2, k=11.03), ICUs (P=0.001, df=2, k=55.91), 6-10 million tomans(P=0.022, df=2, k=7.62), and contractual employment (P=0.001, df=2, k=14.37), which are all had a statistically significant relationship with job satisfaction. The highest frequency of gender, marital status, and employment status were related to females (P=0.037, df=1, k=4.34), married individuals (P=0.034, df=1, k=4.47), and contractual individuals (p=0.032, df=2, k=6.88), which all had a statistically significant relationship with life satisfaction. Also, the female gender (k=11.75, p=0.001, df=1) had a statistically significant relationship with mental health.

DISCUSSION

Mental health affects health-related variables related to [4,33-35]. The results of the present research showed no significant relationship between each of the mental health components and the total score of job satisfaction. There was also no significant relationship between the total scores of job satisfaction and mental health. However, there was an inverse and significant relationship between the two components of job satisfaction and some mental health components, that is between the payment system with physical complaints, interpersonal sensitivity, phobia, and the overall mental health score, and also between the type of job with obsessive-compulsive and paranoid thought.

Kahe et al. revealed a statistically significant relationship between overall job satisfaction with employees' mental health, and people with high job satisfaction obtained a better mental health score (below average) (p=0.02). In other words, the lower the level of mental health, the lower the job satisfaction and vice versa [36].

Table 1: Correlation matrix of job satisfaction, life satisfaction, and mental health (Spearman correlation)

Variable			***Correlation***	
Variable	**Life satisfaction**	**Mental health**	**Meaningful**	
Job Satisfaction	0/267	-0/063	r	*1*
	*0/001	0/428	P	-
Life satisfaction	1	-0/294	r	
	-	*0/001	P	
Mental health		1	r	
		-	P	

Table 2: Relationship between job satisfaction, life satisfaction, and mental health according to demographic characteristics (Kruskal Walli's)

Variable		Mental health				Life satisfaction				Job Satisfaction			
		P	df	K	Mean	P	df	K	Mean	P	df	K	Mean
Gender	Man	0/001	1	11/75	64/73	0/037	1	4/34	70/92	0/262	1	1/25	75/34
	Female				90/48				86/56				83/77
Age	Less than 25 years	0/420	3	2/82	79/84	0/209	3	4/53	76/97	0/181	3	4/87	85/39
	26-29 years				86/58				87/72				86/63
	30-34 years				79/29				66/21				75/57
	More than 34 years				69/50				82/90				65/83
Marital status	Single	0/64	1	0/213	82/11	0/034	1	4/47	73/14	0/071	1	3/26	86/79
	Married				78/72				88/63				73/55
Number of children	0	0/357	3	3/23	82/43	0/647	3	1/65	78/47	0/202	3	4/61	85
	1				62/61				93/5				66/72
	2				82/13				81				65/5
	3				91/17				80/83				71/83
Type of house	Rental	0/227	1	1/46	87/68	0/927	1	0/008	79/95	0/836	1	0/043	81/73
	Personal				77/78				80/71				80/03
Work experience	Less than 3 years	0/105	4	7/64	89/33	0/985	4	0/37	81/09	0/017	4	11/98	94/17
	6-3 years				83/14				79/43				82/29
	9-6 (9-12) years				60/93				86/36				65/5
	< 3 years, > 12 years				50/83				74/5				53/5
	6-3 years				74/14				79/93				71/63
Level of Education	Masters	0/198	1	1/65	82/18	0/423	1	0/64	81/54	0/014	1	6/07	83/71
	MSc				67/28				72/28				55/17
Section	Public section	0/265	3	13/45	83/08	0/254	3	13/63	68/24	0/001	2	55/91	64/24
	Special section				76/95				89/79				91/39
	Emergency room				85/4				79/3				66/75

Veysey et al. showed an inverse relationship between the general health questionnaire and job satisfaction and a direct relationship with the increase in cases of stress [37]. In her study in teaching hospitals of Hormozgan, Mastaneh et al. (2013) also showed a significant negative correlation between mental health pay satisfaction ($p<0.005$) and type of work ($P<0.01$) [38].

Sarafis et al. also showed a significant relationship between the stress management domain of health-promoting lifestyle and the payment system domain of job satisfaction ($p< 0.005$) [39].

Ghasemipirbalooti et al. found a statistically significant relationship between mental health and job satisfaction of the employees of Shahrekord University of Medical Sciences ($p=0.001$) [40].

Mei et al. (2015) investigated the effect of psychological characteristics of employees on their performance and job satisfaction and the indirect effect of feelings on their relationships. They concluded a positive and direct relationship between job satisfaction with psychological characteristics and positive feelings of employees [41].

Many studies have shown a direct relationship between mental health and job satisfaction [42-47].

The results of this study show an inverse and significant relationship between life satisfaction and each of the components of mental health except for the "paranoid thought" component. The results also show that the level of mental health of nurses increases and mental injuries decrease with increasing life satisfaction scores. Salimi also showed in research titled "Investigating mental health and its relationship with job burnout and life satisfaction of employees" that there is a significant relationship between mental health and life satisfaction.

The consistency between the results of the present research with Salimi's study is attributed to the correlation between mental health and life satisfaction. That is, life satisfaction prerequisite for mental health, and if there is no satisfaction, negative mood and despair dominate the person and make him/her susceptible to all kinds of mental illnesses [48].

In a study on nurses in Ahvaz government hospitals, it was found that life satisfaction is correlated with high mental health (Birgani et al.). The higher the level of life satisfaction,

the more likely a person is to experience positive emotions and feelings [49]. Geravand also showed in a study that mental health has a direct effect on life satisfaction.

Changes in mental health and emotions can lead to changes in life satisfaction and a person's attitude [50]. The results of various research show a significant relationship between mental health and life satisfaction. The results of Ferguson's study indicated the interaction between mental health and life satisfaction [51].

In a study of the level of job satisfaction of nurses in hospitals affiliated with Kashan University of Medical Sciences and related factors, Tagharobi et al. showed a statistically significant relationship between the level of education, major stress in the last six months, the workplace, the level of life satisfaction, mental health satisfaction health, pay satisfaction, satisfaction with the number of employees in each shift, satisfaction with the feedback of patients and their families, satisfaction with the treatment and performance of doctors, satisfaction with the treatment and performance of head nurses and colleagues, satisfaction with the treatment and performance of nursing office managers, satisfaction with workplace amenities and happiness with job satisfaction [52].

As was pointed out by Grant, nurses are among the most vulnerable working group in society, and their health and personal-family life balance are strongly related to occupational variables. Work and family life conflict and subsequent stress cause psychological symptoms such as higher stress, depression, chronic physical problems, increased physical complaints, lower life satisfaction, low quality of family life, and low energy levels in these people [17].

CONCLUSION

According to the results of the present study, nurses' life satisfaction score increases with the increase in their job satisfaction score. But there is no significant relationship between the total mental health score and the total job satisfaction score. However, there is an inverse and significant relationship between mental health and life satisfaction. On the other hand, the level of mental health of nurses increases, and mental injuries decrease with the increase in life satisfaction scores. Considering the vital role of nurses in achieving the goals of the health system and public health, neglecting the job dissatisfaction of nurses may have consequences such as reducing productivity, reducing the level of responsibility, reducing the level of quality of their performance, reducing life satisfaction and increasing the number of psychological injuries. Job satisfaction is effective in creating motivation, efficiency, responsibility, and social accountability in the personnel of any organization. Job dissatisfaction can lead to complications such as job burnout, illness, absenteeism, the job left, leaving many nursing jobs, and the reluctance of the young workforce to attend the wards. Therefore, it is necessary to make further efforts in this field by healthcare policymakers.

Acknowledgments
Ilam University of Medical Sciences

Ethics approval and consent to participate
IR.MEDILAM.REC.1400.229
Informed written consent was obtained from all participants included in the study. All participants were informed about the purpose of the study and assured of confidentiality and anonymity. The respondents were informed of their freedom to withdraw from the study at any time.

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