



# The Relationship Between Happiness and Caring Behaviors in Nurses: A Descriptive-Analytical Study

Seyed Ali Rasooli <sup>1</sup>, Sima Babaei <sup>2</sup>, Vajihe Atashi <sup>3</sup>, Safoura Dorri <sup>1,\*</sup>

<sup>1</sup> Nursing and Midwifery Care Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

<sup>2</sup> Nursing and Midwifery Care Research Center, School of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran

<sup>3</sup> Nursing and Midwifery Care Research Center, Department of Adult Health Nursing, School of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran

\*Corresponding Author: Nursing and Midwifery Care Research Center, Isfahan University of Medical Sciences, Isfahan, Iran. Email: s\_dorri86@yahoo.com

Received: 12 October, 2024; Revised: 25 November, 2024; Accepted: 30 November, 2024

## Abstract

**Background:** Caring behaviors encompass the supportive actions undertaken by nurses to assist patients, with the primary aim of reducing the duration of illness. Enhanced happiness may positively influence these behaviors, which are essential for nurses in maintaining and promoting patient health.

**Objectives:** This study investigates the factors affecting the happiness of Iranian nurses and examines whether increased happiness correlates with improved caring behaviors.

**Methods:** This descriptive-correlational study employed random sampling to survey 220 nurses in Isfahan, Iran, in 2024. Data were collected through questionnaires evaluating demographics, happiness (measured by the Oxford Happiness Questionnaire-Short Form), and caring behaviors. Data analysis was performed using descriptive statistics, independent *t*-tests, ANOVA, and Pearson correlation coefficients in SPSS V.23.

**Results:** The Iranian nurses in this study demonstrated above-average happiness (mean score:  $34.48 \pm 5.82$ ). Happiness showed a significant correlation with caring behaviors ( $P < 0.05$ ) and was also significantly associated with gender, work experience, and income level. No significant associations were found between happiness and age, marital status, education, employment type, or department ( $P > 0.05$ ).

**Conclusions:** Higher levels of nurse happiness are associated with improved caring behaviors, suggesting that initiatives aimed at enhancing nurse happiness can lead to better quality of patient care. It is imperative for government and healthcare organizations to prioritize programs and policies that focus on increasing nurse satisfaction to improve healthcare outcomes.

**Keywords:** Nurses, Job Satisfaction, Patient Care, Quality of Health Care, Happiness

## 1. Background

Nursing care, founded on the multifaceted concept of caring, is central to positive patient outcomes. Caring encompasses both physical and psychosocial dimensions (1), manifesting in behaviors that provide holistic support—physical, emotional, spiritual, social, and psychological—to expedite patient recovery and enhance comfort (2, 3). However, a discrepancy exists between nurses' perceptions of their caring behaviors and patients' reported experiences (4), underscoring the need to identify factors influencing the quality of care delivery.

Nurse happiness is a potentially significant factor, as it has been linked to improved organizational performance and potentially enhanced patient-centered care (5). Happiness, defined as a confluence of life satisfaction, positive emotions, and the absence of negative emotions (6), fosters positive attributes such as optimism, self-efficacy, and effective decision-making (7). Given nurses' extensive time commitment to their work environments, their happiness is intrinsically tied to workplace factors and may profoundly influence their performance (8, 9).

Studies indicate that Iranian nurses experience moderate to low levels of happiness (10, 11), attributable to factors including challenging work conditions, inadequate support, and limited career advancement opportunities (11). These factors contribute to negative emotions and potentially compromise the quality of care provided (11, 12). Therefore, understanding the determinants of happiness among Iranian nurses is crucial.

Considering the pivotal role nurses play in patient health, the demonstration of high-quality caring behaviors is paramount. Given the limited research in this area within Iran, this descriptive-analytical study investigates the factors influencing Iranian nurses' happiness and examines the association between happiness and the quality of their caring behaviors.

## 2. Objectives

This study examines the factors that affect the happiness of Iranian nurses and explores whether increased happiness correlates with improved caring behaviors.

## 3. Methods

### 3.1. Study Design

This descriptive, correlational-analytical study aimed to investigate the relationship between happiness and caring behaviors in nurses working in hospitals affiliated with Isfahan University of Medical Sciences in 2024. The sampling process was conducted from February 2024 to April 2024.

### 3.2. Study Setting and Participants

A sample of 220 clinical nurses was randomly selected from four major teaching hospitals affiliated with Isfahan University of Medical Sciences: Al-Zahra, Khorshid, Chamran, and Feiz, using Cochran's formula. The inclusion criteria included willingness and informed consent to participate, at least one year of clinical experience, no recent crisis (such as the death of a close relative, divorce, or a serious illness in the past six months, as self-reported), no known psychological disorders (self-reported), and no use of psychotropic or narcotic drugs (self-reported). The exclusion criterion was incomplete questionnaire responses.

Based on random sampling, a list of nurses who met the inclusion criteria in the four hospitals was prepared, and 220 individuals were randomly selected using a random number table. The researcher visited the nurses during appropriate times on morning, afternoon, and night shifts. After introducing themselves and providing a detailed explanation of the study, written informed consent was obtained from the nurses. Subsequently, the demographic, happiness, and Caring Behaviors Questionnaires were distributed to the participants.

### 3.3. Data Collection and Measurement

Data collection was conducted using three questionnaires: A Demographic Information Questionnaire (nine questions), the short form of the Oxford Happiness Questionnaire (eight questions), and the Caring Behaviors Inventory (CBI-16). The face and content validity of the Demographic Questionnaire were confirmed by ten faculty members.

The short form of the Oxford Happiness Questionnaire, developed by Hills and Argyle (2002), is based on a Six-Point Likert Scale (ranging from strongly disagree to strongly agree), with three items being reverse-scored (items 1, 4, and 8). Scores range from 8 to 48, with higher scores indicating greater happiness (13). This questionnaire was translated into Persian by Dehshiri et al. in 2015, with its face and content validity confirmed, and a Cronbach's alpha of 0.71 reported in that study (13).

The CBI-16, developed by Wolf in 2017, consists of 16 items scored on a Six-Point Likert Scale, with a total score ranging from 16 to 96. The questionnaire encompasses four subscales: Respect for others, ensuring human presence, communication and positive attitude, and professional knowledge and skills (14). The Cronbach's alpha for this questionnaire was reported as greater than 0.7 in the study by Ghafouri et al. (14). The verbs in this questionnaire were phrased in the first person for nurses. This tool is designed to be completed by both nurses and patients (15-17). In the study by Alikari et al., the first-person phrasing was used for nurses, and the face and content validity of the questionnaire were confirmed, with a Cronbach's alpha coefficient reported at 0.96 (15).

### 3.4. Data Analysis

Statistical analysis was performed using SPSS version 23. Descriptive statistics were employed to calculate the mean scores for happiness and caring behaviors. The relationship between happiness and demographic variables was assessed using independent *t*-tests and ANOVA, while the association between happiness and caring behaviors was evaluated using the Pearson correlation coefficient. A significance level of ( $P < 0.05$ ) was applied to determine statistical significance.

### 3.5. Ethical Considerations

The necessary approvals and ethics code [IR.MUI.NUREMA.REC.1402.045](#) were obtained from the Ethics Committee of Isfahan University of Medical Sciences. Informed consent was secured from the participating nurses after providing a detailed explanation of the study's objectives and procedures. Participants were assured that their involvement was entirely voluntary, their information would remain confidential, and they would be informed of the study's results.

## 4. Results

The mean age of the participants was 32 years. [Table 1](#) presents the demographic characteristics of the study sample. The findings revealed that the mean happiness score among Iranian nurses was  $34.48 \pm 5.82$ , and the mean score for caring behaviors was  $82.53 \pm 9.97$ . [Table 2](#) provides the mean scores of the study variables.

The results indicated a significant relationship between happiness and factors such as gender, work experience, and income. However, variables such as age, marital status, education level, employment type, and hospital department did not significantly influence the level of happiness. [Table 3](#) outlines the relationship between these variables and happiness in the study sample.

Additionally, happiness demonstrated a positive and significant correlation with caring behaviors and its subdomains. [Table 2](#) highlights the relationship between happiness and caring behaviors, including its subdomains.

## 5. Discussion

The mean happiness score among Iranian nurses was found to be above average. This finding aligns with

studies conducted by Gurdogan and Uslusoy and Meng et al., which also reported above-average happiness levels among nurses ([18, 19](#)). Similarly, research conducted in Iran by Javanmardnejad et al., Khosrojerdi et al., Mousavi et al., and Vakili et al. yielded comparable results ([20-23](#)). In contrast, a study by Yosefi reported significantly lower happiness levels among nurses ([24](#)). In Yosefi's study, 300 female nurses working in oncology, obstetrics and gynecology, and internal medicine wards were surveyed, whereas the present study included 220 male and female nurses from internal medicine, surgery, and intensive care units. Additionally, Yosefi employed the Munsh Questionnaire to assess happiness, while the present study utilized the Oxford Happiness Questionnaire.

There was a significant relationship between gender, work experience, income, and happiness, while factors such as age, marital status, education level, employment type, and hospital department showed no significant effect on happiness. Consistent with the present research, the study by Gurdogan et al. indicated that male nurses exhibited higher levels of happiness than their female counterparts. The higher happiness levels among male nurses in Iran may be attributed to traditional gender roles, reduced workplace discrimination, more career advancement opportunities, better access to support systems, and a healthier work-life balance ([11, 23, 25](#)). In contrast, female nurses may experience more stress due to social pressures, increased home responsibilities, and workplace discrimination, contributing to lower levels of satisfaction and happiness. However, Meng et al. found that female nurses had higher levels of happiness ([18, 19](#)). This discrepancy could stem from geographical differences (West Asia compared to East Asia) or the fact that Meng's study was conducted in military hospitals. It is important to note that indicators and factors related to happiness evolve with social changes over time. If Meng's study were replicated today, the results might align with those of the present study or the one conducted by Gurdogan two years ago.

Additionally, Baghdadi et al. conducted their study on nursing students, a population distinct from the present study ([26](#)). Since nursing students are generally at the beginning of their professional careers, the levels of happiness and influencing factors in this group may differ from those of employed nurses. Baghdadi's study

**Table 1.** The Demographic Information of the Nurses

Variables	No. (%)
<b>Healthcare center</b>	
Alzahra	26 (11.8)
Feiz	10 (4.5)
Khorshid	31 (14.1)
Chamran	153 (69.5)
<b>Education level</b>	
Bachelor	194 (88.2)
Master	26 (11.8)
<b>Gender</b>	
Female	159 (72.3)
Male	61 (27.7)
<b>Marital status</b>	
Single	83 (37.7)
Married	137 (62.3)
<b>Age</b>	
20 - 29	86 (39.1)
30 - 39	92 (41.8)
40 - 49	33 (15)
> 50	9 (4.1)
<b>Employment status</b>	
Official	68 (30.9)
Contractual	121 (55)
Temporary	29 (13.2)
<b>Work experience (y)</b>	
< 5	85 (39.5)
5 - 10	68 (30.9)
10 - 15	37 (16.8)
15 - 20	15 (6.8)
20 - 26	9 (4.1)
> 26	6 (2.7)
<b>Income (million Rials)</b>	
<100	18 (8.2)
100 - 150	187 (85)
150 - 200	6 (2.7)
> 200	9 (4.1)
<b>Ward</b>	
Internal medicine	74 (33.6)
Surgery	50 (22.7)
CCU, ICU, emergency	96 (43.6)

also reported no significant relationship between gender and happiness (26).

The results indicate that longer work experience is associated with higher levels of happiness, consistent with the findings of Khosrojerdi et al. (21). However, studies conducted by Javadi Sharif et al. and Bagheri et al. found no significant relationship between work experience and happiness (27, 28), which contrasts with

our findings. One possible explanation for this discrepancy is that nurses with more experience may have started their careers during periods when economic, social, and working conditions were more favorable, providing them with a higher social status. These experienced nurses may now enjoy greater stability in their personal and professional lives. In contrast, less experienced nurses often face challenges

**Table 2.** Relationship Between Happiness and Demographic Information <sup>a</sup>

Variables and Categories	Happiness	P-Value
<b>Age (y)</b>		0.028 <sup>b</sup>
20 - 29	34.14 ± 5.72	
30 - 39	34.07 ± 5.78	
40 - 49	35.94 ± 6.45	
> 50	36.44 ± 4.03	
<b>Gender</b>		0.042 <sup>c</sup>
Male	35.80 ± 5.03	
Female	33.99 ± 6.03	
<b>Marital status</b>		0.206 <sup>c</sup>
Married	23.62 ± 5.57	
Single	24.83 ± 7.38	
<b>Education level</b>		0.031 <sup>c</sup>
Bachelor	34.42 ± 6.44	
Master	21.11 ± 5.02	
<b>Employment status</b>		0.195 <sup>b</sup>
Official	33.47 ± 6.67	
Contractual	35.08 ± 5.54	
Temporary	34.28 ± 4.87	
<b>Work experience (y)</b>		0.033 <sup>b</sup>
< 5	34.80 ± 5.62	
5 - 10	34.73 ± 6.23	
10 - 15	32.91 ± 5.14	
15 - 20	35.67 ± 5.64	
20 - 26	36.22 ± 6.57	
> 26	41.00 ± 0.89	
<b>Healthcare center</b>		0.09 <sup>b</sup>
Alzahra	35.00 ± 4.47	
Feiz	37.3 ± 4.32	
Khorshid	36.06 ± 7.08	
Chamran	33.87 ± 5.75	
<b>Income (million Rials)</b>		0.022 <sup>b</sup>
< 10	34.72 ± 3.96	
10 - 15	34.22 ± 5.82	
15 - 20	41.67 ± 3.61	
> 20	34.71 ± 8.09	
<b>Ward</b>		0.356 <sup>b</sup>
Internal medicine	35.26 ± 5.79	
Surgery	34.26 ± 5.09	
CCU, ICU, emergency	33.98 ± 6.20	

<sup>a</sup> Values are expressed as mean ± SD.<sup>b</sup> One way ANOVA.<sup>c</sup> Independent t-test.

such as adverse economic and social conditions, increased stress due to staffing shortages, and lower salaries. As a result, they may experience greater anxiety about the future and instability in their lives, leading to

lower levels of happiness compared to their more experienced colleagues (29).

Javanmardnejad et al., Khosrojerdi et al., and Kumar et al. also identified a significant relationship between

**Table 3.** Relationship Between Happiness and Caring Behaviors

Variables	Mean $\pm$ SD	Pearson Correlation Test	
		r	P-Value
Happiness	34.48 $\pm$ 5.82	-	-
Caring behaviors	82.53 $\pm$ 9.97	0.24	0.001
Subscales 1 (communicating respectfully)	31.23 $\pm$ 3.73	0.215	0.002
Subscales 2 (ensuring human presence)	5.25 $\pm$ 0.83	0.213	0.002
Subscales 3 (communication and positive attitude)	25.99 $\pm$ 3.58	0.174	0.011
Subscales 4 (professional knowledge and skill)	15.40 $\pm$ 2.27	0.21	0.002

income and happiness (20, 21, 30), aligning with our findings. Income level is highlighted as a crucial factor in global studies as well (31, 32). However, the concept of happiness and the factors contributing to it vary across countries and cultures. Language, geography, and culture play significant roles in shaping the definition of happiness and can influence its levels (33). Additional factors identified in the literature that contribute to variations in the meaning of happiness include corruption, perceptions of freedom and free choice, social support (34, 35), income inequality, economic conditions, urban versus rural residency, and health (31, 32). Furthermore, marital status, social participation and support, and health conditions have been emphasized as significant factors (36, 37).

The findings indicated that the mean score for caring behaviors was above average. Safa et al. reported that the majority of patients expressed satisfaction with nurses' caring behaviors (38). Similarly, Barkhordari-Sharifabad et al., Hosseinzadeh et al., Ferede et al., Gheybi and Zeinali also found that nurses demonstrated above-average caring behaviors (2, 17, 39, 40). However, Zare revealed a disparity: While nurses believed they were providing good care, patients felt their expectations and needs were not fully met (4). In contrast, studies by Ahmed et al. and Kibret et al. reported low levels of caring behaviors among nurses, findings that contradict the results of this study (41, 42).

There was a significant relationship between happiness and caregiving behavior, including all its subdomains. A study by Baghdadi et al. highlighted that happiness could influence the caregiving behavior of nursing students (26). Similarly, Abou Zeid et al. reported comparable findings, suggesting that a positive and enhanced sense of happiness is essential for improving nurses' caregiving behaviors (43). A

positive work environment can contribute to increased happiness among nurses, motivating them to exhibit better caregiving behaviors. In general, it can be concluded that happier nurses demonstrate greater commitment to caregiving behaviors, and increased happiness enhances the quality of care provided by nurses.

### 5.1. Conclusions

Nurses with higher levels of happiness are more likely to provide better care. Considering the pivotal role nursing care plays in patient recovery, it is imperative for healthcare organizations and governments to prioritize initiatives aimed at enhancing nurse happiness. Offering greater financial support, promoting gender equality in the workplace, and ensuring job security to retain nurses can create a solid foundation for improving the quality of nursing care. Furthermore, since happiness is not a fixed trait and can be influenced by various factors, future research should focus on identifying additional elements that impact nurse happiness to develop targeted interventions that further enhance their well-being and caregiving effectiveness.

### Acknowledgements

This article is based on the master's thesis in nursing at Isfahan University of Medical Sciences (ethics approval code: [IR.MUI.NUREMA.REC.1402.045](#)). The research team extends its sincere gratitude to the esteemed Vice Chancellor for Research at Isfahan University of Medical Sciences and to all the nurses who participated in this study.

### Footnotes



**Authors' Contribution:** Study concept and design: S. D., and A. R.; Analysis and interpretation of data: S. B., and V. A.; Drafting of the manuscript: S. D., and A. R.; Critical revision of the manuscript for important intellectual content: S. D., S. B., and V. A.; Statistical analysis: A. R.; Administrative, technical, and material support: S. F., and A. R.; Study supervision: S. D., S. B., and V.A.

**Conflict of Interests Statement:** The authors have no conflict of interest.

**Data Availability:** The dataset presented in the study is available on request from the corresponding author during submission or after publication.

**Ethical Approval:** This study is approved under the ethical approval code of [IR.MUI.NUREMA.REC.1402.045](#).

**Funding/Support:** This study was supported by funding and support from the Isfahan University of Medical Sciences.

**Informed Consent:** Informed consent was secured from the participating nurses after providing a detailed explanation of the study's objectives and procedures.

## References

- Ghanbari-Afra L, Adib-Hajbaghery M, Dianati M. [Human Caring: A Concept Analysis]. *J Caring Sci.* 2022;**11**(4):246-54. FA. [PubMed ID: 36483689]. [PubMed Central ID: [PMC9720504](#)]. <https://doi.org/10.34172/jcs.2022.21>.
- Barkhordari-Sharifabad M, Nadian-Sadeh H, Sedaghati Kesbakhi M. [The Relationship between Spiritual Intelligence with Caring Behavior and Empathy in Nurses Working in Hospitals affiliated to University of Medical Sciences of Kashan]. *J Nurs Edu.* 2020;**8**(6):8-17. FA.
- Mofidighadimahdi M, Norouzadeh R, Aghaei B. [The Relationship between Assertiveness and Health Caring Behaviors of Nurses in The Intensive Care Units of The Armed Forces Hospitals in Tehran, Iran]. *J Marine Med.* 2022;**4**(2):115-23. FA. <https://doi.org/10.30491/4.2.115>.
- Zare Z, Sanagoo A, Behnampour N, Jouybari L. [Comparison of Nurses' and Patients' Perspective on Caring Behaviors in Intensive Care Units of Educational and Medical Hospitals Affiliated Golestan University of Medical Sciences in 2021]. *J Nurs Edu.* 2022;**11**(2):23-31. FA. <https://doi.org/10.22034/jne.11.2.23>.
- Kim EJ, Lim JY, Kim GM, Kim SK. Nursing Students' Subjective Happiness: A Social Network Analysis. *Int J Environ Res Public Health.* 2021;**18**(21). [PubMed ID: 34770124]. [PubMed Central ID: [PMC8583011](#)]. <https://doi.org/10.3390/ijerph18211612>.
- Farahani MA, Dorri S, Seyedfatemi N. Happiness Strategies for Older Adults: A Qualitative Study. *Res Gerontol Nurs.* 2020;**13**(5):254-63. [PubMed ID: 32101322]. <https://doi.org/10.3928/19404921-20200220-02>.
- Luhmann M, Necka EA, Schonbrodt FD, Hawkey LC. Is Valuing Happiness Associated With Lower Well-Being? A Factor-Level Analysis using the Valuing Happiness Scale. *J Res Pers.* 2016;**60**:46-50. [PubMed ID: 26778865]. [PubMed Central ID: [PMC4710960](#)]. <https://doi.org/10.1016/j.jrp.2015.11.003>.
- Chang S, Han K, Cho Y. Association of Happiness and Nursing Work Environments with Job Crafting among Hospital Nurses in South Korea. *Int J Environ Res Public Health.* 2020;**17**(11). [PubMed ID: 32517109]. [PubMed Central ID: [PMC7312226](#)]. <https://doi.org/10.3390/ijerph17114042>.
- Fisher CD. Happiness at Work. *Int J Manag Rev.* 2010;**12**(4):384-412. <https://doi.org/10.1111/j.1468-2370.2009.00270.x>.
- Dadghar H, Gholamalinejad F, Ashoori J, Arabsalari Z. [The relationship leadership styles, organizational commitment and happiness with job satisfaction of nursing]. *Avicenna J Nurs Midwif Care.* 2015;**23**(2):5-14. FA.
- Javanmardnejad S, Bandari R, Heravi-Karimooi M, Rejeh N, Sharif Nia H, Montazeri A. Happiness, quality of working life, and job satisfaction among nurses working in emergency departments in Iran. *Health Qual Life Outcom.* 2021;**19**(1):112. [PubMed ID: 33794917]. [PubMed Central ID: [PMC8017644](#)]. <https://doi.org/10.1186/s12955-021-01755-3>.
- Wee KZ, Lai AY. Work Engagement and Patient Quality of Care: A Meta-Analysis and Systematic Review. *Med Care Res Rev.* 2022;**79**(3):345-58. [PubMed ID: 34238065]. <https://doi.org/10.1177/10775587211030388>.
- Dehshiri G, Akbari Balootbangan A, Najafi M, Moghadamzadeh A. [Psychometric Properties of the Oxford Happiness Questionnaire Short Form in University Students]. *Edu Measur Evaluat Stud.* 2016;**5**(12):9-26. FA.
- Ghafouri R, Nasiri M, Atashzadeh-Shoorideh F, Tayyar-Iravanlou F, Rahmaty Z. Translation and validation of caring behaviors inventory among nurses in Iran. *PLoS One.* 2021;**16**(7). e0254317. [PubMed ID: 34242322]. [PubMed Central ID: [PMC8270114](#)]. <https://doi.org/10.1371/journal.pone.0254317>.
- Alikari V, Gerogianni G, Fradelos EC, Kelesi M, Kaba E, Zyga S. Perceptions of Caring Behaviors among Patients and Nurses. *Int J Environ Res Public Health.* 2022;**20**(1). [PubMed ID: 36612719]. [PubMed Central ID: [PMC9819105](#)]. <https://doi.org/10.3390/ijerph20010396>.
- Beck CT. Quantitative measurement of caring. *J Adv Nurs.* 1999;**30**(1):24-32. [PubMed ID: 10403977]. <https://doi.org/10.1046/j.1365-2648.1999.01045.x>.
- Hosseinzadeh H, Mohammadi MA, Shamshiri M. The Study of Caring Behaviors and Its Determinant Factors from the Perspective of Nurses in Educational Hospitals of Ardabil. *J Health Care.* 2019;**21**(3):203-11. <https://doi.org/10.29252/jhc.21.3.203>.
- Gurdogan EP, Uslusoy EC. The relationship between quality of work life and happiness in nurses: A sample from Turkey. *Int J Car Sci.* 2019;**12**(3):1364-71.
- Meng Y, Luo X, Sun P, Luo Y, Wang Z, Wang L, et al. Occupational Happiness of Civilian Nurses in China: a cross-sectional study. *BMC Nurs.* 2023;**22**(1):233. [PubMed ID: 37403055]. [PubMed Central ID: [PMC10318687](#)]. <https://doi.org/10.1186/s12912-023-01397-4>.
- Javanmardnejad S, Heravi-Karimooi M, Rejeh N, Sharif Nia H. [Happiness in Nurses Working in the Emergency Department of the Hospitals of Ilam University of Medical Sciences in 2019]. *Critic Care Nurs.* 2018;**11**(4):1-8. FA.

21. Khosrojerdi Z, Tagharrobi Z, Sooki Z, Sharifi K. Predictors of happiness among Iranian nurses. *Int J Nurs Sci*. 2018;**5**(3):281-6. [PubMed ID: 31406838]. [PubMed Central ID: PMC6626217]. <https://doi.org/10.1016/j.ijnss.2018.06.008>.
22. Mousavi SR, Amini K, Ramezani-Badr F, Roohani M. Correlation of happiness and professional autonomy in Iranian nurses. *J Res Nurs*. 2019;**24**(8):622-32. [PubMed ID: 34394585]. [PubMed Central ID: PMC7932314]. <https://doi.org/10.1177/1744987119877421>.
23. Vakili M, Farzaneh F, Momayyezi M. [Evaluation of Happiness and its Related Factors among Nurses in Educational Hospitals of Yazd Shahid Sadoughi University of Medical Sciences, 2016]. *J Tolooebehdasht*. 2020;**19**(3):1-11. FA. <https://doi.org/10.18502/tbj.v19i3.4168>.
24. Yosefi M. Comparison of Happiness, Psychology Well-Being and Job Perfectionism among Women Nurses of Different Sections of Hospitals in Isfahan at 2014. *Avicenna J Nurs Midwif Care*. 2015;**23**(2):52-62.
25. Mokhtari M, Nasirizadeh M, Abdollahi SM. Investigating the relationship between happiness and self-efficacy with work-family conflict among nurses. *Iran J Nurs Res*. 2023;**18**(2):50-9. <https://doi.org/10.22034/ijnr.18.2.6>.
26. Baghdadi NA, Sankarapandian C, Arulappan J, Taani MH, Sneathen J, Andargeery SY. The Association between Nursing Students' Happiness, Emotional Intelligence, and Perceived Caring Behavior in Riyadh City, Saudi Arabia. *Healthcare (Basel)*. 2023;**12**(1). [PubMed ID: 38200973]. [PubMed Central ID: PMC10778723]. <https://doi.org/10.3390/healthcare12010067>.
27. Bagheri F, Akbarizadeh F, Hatami H. [The Relationship between Spiritual Intelligence and Happiness on the Nurse Staffs of the Fatemeh Zahra Hospital and Bentolhoda Institute of Boushehr City]. *Iran South Med J*. 2011;**14**(4):256-63. FA.
28. Javadi Sharif T, Hosseinzadeh M, Mahdavi N, Namdar Areshtanab H, Dickens GL. Happiness and its Relationship with Job Burnout in Nurses of Educational Hospitals in Tabriz, Iran. *Int J Community Based Nurs Midwifery*. 2020;**8**(4):295-304. [PubMed ID: 33178852]. [PubMed Central ID: PMC7648855]. <https://doi.org/10.30476/IJCBNM.2020.83298.1138>.
29. Bahrami M, Rahimzadeh-Feyzabad T. [The relationship between Social and Professional Status and Occupational Components from the Nurses' Perspective in Vali-e Asr Educational Hospital of Birjand]. *Beyhagh*. 2017;**22**(1):50-9. FA.
30. Kumar TKA, Khakha DC, Joshi P, Das S, Manu KJ. Happiness and its determinants among nursing students. *Ind Psychiatry J*. 2022;**31**(2):293-8. [PubMed ID: 36419689]. [PubMed Central ID: PMC9678172]. [https://doi.org/10.4103/ipj.ipj\\_127\\_21](https://doi.org/10.4103/ipj.ipj_127_21).
31. Afshari Z, Dahmardeh L. [The Impact of Poverty, Income Inequality and Human Development Index on Happiness.A Panel Data Approach]. *Iran Econ Develop Analys*. 2015;**2**(4):31-59. FA. <https://doi.org/10.22051/edp.2015.2074>.
32. Montazeri A, Omidvari S, Azin A, Aeenparast A, Jahangiri K, Sadighi J, et al. [Happiness among Iranians: findings from the Iranian Health Perception Survey (IHPS)]. *J Payesh*. 2012;**11**(4):467-75. FA.
33. Ziogas T. *No human is an island: essays on the economic geography of happiness*. University of Groningen; 2024.
34. Helliwell JF, Huang H, Wang S. Changing world happiness. *World Happiness Rep*. 2019;**2019**(2):11-46.
35. Helliwell JF, Layard R, Network SDS, Sachs J. *World Happiness Report 2018*. World Happiness Report; 2018, [cited 5 August 2024]. Available from: <https://worldhappiness.report/ed/2018/>.
36. George LK. Still happy after all these years: research frontiers on subjective well-being in later life. *J Gerontol B Psychol Sci Soc Sci*. 2010;**65B**(3):331-9. [PubMed ID: 20233742]. <https://doi.org/10.1093/geronb/gbq006>.
37. Mroczek DK, Spiro A. Change in life satisfaction during adulthood: findings from the veterans affairs normative aging study. *J Pers Soc Psychol*. 2005;**88**(1):189-202. [PubMed ID: 15631584]. <https://doi.org/10.1037/0022-3514.88.1.189>.
38. Safa A, Rayat F, Arbabi Z, Abedzadeh M, Gholami M. [The relationship between nurses' care behaviors and patients' satisfaction in public hospitals of Kashan]. *Qtlly J Nurs Manag*. 2021;**10**(3):1-10. FA.
39. Ferede AJ, Gezie LD, Geda B, Salih MH, Erlandsson K, Wettergren L. Nurses' perceptions of caring behaviors at referral hospitals in Ethiopia: A mixed-methods approach. *BMC Nurs*. 2024;**23**(1):767. [PubMed ID: 39425095]. [PubMed Central ID: PMC11487990]. <https://doi.org/10.1186/s12912-024-02431-9>.
40. Gheybi M, Zeinali A. The Role of Meta-memory and Positive Meta-cognitions and Meta-emotions in Predicting Caring Behavior of Nurses. *J Nurs Edu*. 2021;**10**(4):19-21.
41. Ahmed FSA, Hassan AAA, Mohammed NE. The Relationship Between Quality of Work Life and Job Involvement Among Staff Nurses at a Selected Hospital. *Int Egypt J Nurs Sci Res*. 2024;**5**(1):211-26. <https://doi.org/10.21608/ejnsr.2024.290819.1380>.
42. Kibret H, Tadesse B, Debelia A, Degefa M, Regassa LD. Level and predictors of nurse caring behaviors among nurses serving in inpatient departments in public hospitals in Harari region, eastern Ethiopia. *BMC Nurs*. 2022;**21**(1):76. [PubMed ID: 35365137]. [PubMed Central ID: PMC8972678]. <https://doi.org/10.1186/s12912-022-00856-8>.
43. Abou Zeid MG, Khedr MA, Rayan HN, Mostafa B, El-Ashry AM. The relationship between organizational dehumanization and work engagement: the mediating effect of nurses' work stress. *BMC Nurs*. 2024;**23**(1):193. [PubMed ID: 38515082]. [PubMed Central ID: PMC10958847]. <https://doi.org/10.1186/s12912-024-01841-z>.