



# The Effect of Perceived Organizational Climate on the Performance of Nurses in Private Hospitals

Abbas Shahnnavazi<sup>1,\*</sup>, Mehdi Fadaei Eshkiki<sup>2</sup>, Hossein Shahnnavazi<sup>3</sup> and Hamid Bouraghi<sup>4</sup>

<sup>1</sup>Department of Business Management, Roudbar Branch, Islamic Azad University, Roudbar, Iran

<sup>2</sup>Department of Business Management, Roudbar Branch, Islamic Azad University, Roudbar, Iran

<sup>3</sup>Legal Medicine Research Center, Legal Medicine Organization, Tehran, Iran

<sup>4</sup>Department of Health Information Technology, School of Paramedical Sciences, Hamadan University of Medical Sciences, Hamadan, Iran

\*Corresponding author: Department of Business Management, Roudbar Branch, Islamic Azad University, Roudbar, Iran. Email: abbasshahnnavazi34@gmail.com

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## Abstract

**Background:** the appropriate organizational climate and subsequent proper performance are goals that challenge hospital managers to achieve successful outcomes. A positive working climate motivates and enhances nurses' performance.

**Objectives:** There was to identify the relationship between perceived organizational climate and nurses' performance.

**Methods:** This is a cross-sectional descriptive study that is performed on nurses working in the private hospitals in Rasht, Iran. The data were collected through two questionnaires of organizational climate and job performance that its validity and reliability were confirmed. SPSS24 and descriptive and inferential statistics were used for data analysis.

**Results:** According to the mean score obtained more than half of the nurses report a positive assessment of the climate in the hospitals. Also, less than one-third of nurses had a ideal level of performance regarding nurses' job performance. Also, the relationship between perceived organizational climate and the level of nurses' performance with the personal and occupational skills of nurses was emphasized. Finally, the relationship between perceived organizational climate and nurses' job performance was statistically significant ( $P \leq 0.048$ ).

**Conclusions:** According to the results, the perceived organizational climate has a positive relationship with nurses' performance level. Therefore, managers and practitioners of private hospitals in Rasht should ultimately improve nurses' performance by improving the organizational climate and by emphasizing variables such as providing work-related facilities, paying attention to nurses' interests, emphasizing team building, participating in decision-making, improving customer service, paying attention to hospital reputation improving relationships among staff and improving compensation practices.

**Keywords:** Work Performance, Hospitals, Private, Nurse Administrators

## 1. Background

In recent years, due to the prevailing economic conditions, our country's hospitals, despite having an important role in promoting public health, are facing difficult conditions. This, coupled with the fierce competition from hospitals to attract the limited resources of insurance companies, has greatly reduced profit margins. On the other hand, due to various information sources, customers in the field of health services are very aware and armed with a variety of choices, they demand that every time they go to the hospital, they finally leave satisfied (1). In today's competitive environment, the importance of the health workforce and its nurses in the quantitative and qualitative development of health care systems is recognized. Following this, creating a positive organizational atmosphere to improve the productivity and performance of nurses seems necessary (2). Because a positive organizational climate

can increase nurses' job commitment and reduce their intention to leave, creating an organizational climate that has a positive impact on the ethics, behavior and attitude of nurses is a major concern for the management of the health sector (3).

If organizations are able to create an organizational environment that is perceived as positive by employees, it is likely to increase the level of motivation, commitment and interaction of employees and ultimately lead to improved organizational performance (4).

In addition, the organizational climate that motivates and engages employees has a positive effect on organizational performance (5) Studies conducted at the organizational and team level have shown the positive effect of organizational climate on performance. Since when employees work in an environment where there is a sense of freedom in the performance of duty, they have more control

over their ideas and work processes and improve their performance (6).

Organizational climate is described as repetitive models of behavior, attitude and emotions which identify the lifestyle in the organization and are most associated with organizational culture and values (7).

Farooqi (8) claimed that the organizational climate is a set of features that explain an organization and distinct it from the other organizations. Organizational climate is defined as a set of measurable features that personnel can understand directly or indirectly in their workplace.

In hospitals and health centers, nurses want to have better working conditions that make them feel valued while performing their duties. Unhealthy work environments are an important indicator of many adverse consequences for nurses, including burnout and dissatisfaction of job (9). Conversely, nurses who consider their work environment to be patronage and friendly are more probably to show positive behaviors and suitable performance (10).

Organizational climate is related to different kinds of organizational performance, particularly the performance of nurses. In the hospital environment, nurses' performance is identified as an important factor in providing qualitative medical services and its quantity and quality are considered as a main factor in employees' decisions like promotion and payment. Nurses' performance is defined as how to perform their duties and responsibilities effectively in accordance with established standards. The performance of nurses in the form of patient care has been the core of the hospital. Therefore, how nurses work in achieving the goals and mission of an organization is essential. Patients want the ideal treatment; they want their nurse to be learned, expert, competent, and compassionate and humane. These features make them feel safe and comfortable. By analyzing the performance of nurses and identifying their educational needs, nurses' competence can be improved (11). Also, repeated measurement of nurses' performance produce a health care system that present efficient, effective and high performance (12).

In this regard, Rubel et al (13) stated that organizational climate minimize turnover intention. organizational climate also has a substantial influence on both employee performance and turnover intention. Yong et al (14) in order to improve the performance of nurses, Reduce turnover and increase job satisfaction hospital managers should Increase the level of participation in teamwork, participation in decision making and access to information and resources in nurses. Also, another study was conducted in Egypt to investigate the relationship between organizational climate and job consequences of nurses and discovered that organizational climate is related to nurses' job performance outcomes (15).

## 2. Objectives

According to the above, the purpose of this study is to investigate the relationship between organizational climate and job performance of nurses in private hospitals in Rasht in 2019.

## 3. Methods

This descriptive-analytical study was conducted in the first six months of 2019 in private hospitals in Rasht. Due to the legal restrictions on obtaining the necessary permits, public hospitals have not been considered in this study. The statistical population of this study is 112 nurses working in the pediatric ward of private hospitals in Rasht, including Golsar, Pars, Ghaem and Aria hospitals. Due to the limitations of the statistical population, the census method was used to select the respondents. For this purpose, a meeting was held with the management of these hospitals and the reason for the research was agreed upon. Then, by holding a training session with the head nurses of the pediatric ward of the mentioned hospitals, they were taught how to complete the performance evaluation checklists of the nurses. Finally, out of the total number of distributed questionnaires, 108 questionnaires were used according to the cooperation.

The questionnaire used in the present study includes three sections: personal and job characteristics, organizational climate and performance evaluation of nurses. The first section take into account the personal and occupational features of the study sample including age, sex, marital status, education and work experience. The second part of the questionnaire in the form of Martin (2006) organizational climate questionnaire evaluates this variable in the concerned hospitals. This section included ten areas related to work-related facilities, nurses' interests, team building, decision-making, participation, communication, customer service, hospital credibility, employees' relations, and payments. The organizational climate questionnaire is assessed using the 5-point Likert scale. The score obtained varies from 30 - 150, and obtaining a score of at least 60% is considered as a criterion for positive evaluation of organizational climate.

In the third part of the nurses' performance evaluation, the Cobb observational checklist (2008) was used. This checklist includes 60 items that are grouped into four areas of concerned hospital behavior (25 cases), nursing process (18 cases), quality of care (13 cases) and education (four cases). This assessment of nurses' performance is also measured on a 5-point Likert from unacceptable (1) to outstanding (5). The scores can be obtained on this scale vary between 60 and 300. A score of at least 60% will be the criterion for a positive evaluation of nurses' performance. This

checklist was completed by the head nurses of the pediatric ward of the researched hospitals in July 2019. Validity and reliability research tools were used to ensure accuracy. Content validity ratio (CVR) and content validity index (CVI) were used to assess the validity of the questionnaire. The validity of the measuring instrument was confirmed according to the obtained values for these two indicators (CVR = 0.82) and (CVI = 0.71). Cronbach's alpha index was also used to measure reliability, which was confirmed by 81.81%. After collecting the data, the normality of the observations was first confirmed using the Kolmogorov-Smirnov test. Then descriptive statistics methods were used to describe the research variables in terms of criteria such as mean, standard deviation and variance. In order to test the research hypotheses, inferential statistics in the form of variance one-way analysis, *t*-test with two independent samples and Pearson correlation coefficient were utilized using SPSS24 software. It is noteworthy that ethical considerations were observed throughout the research.

#### 4. Results

Findings obtained from the study show that out of 108 subjects studied, most of the respondents (87%) were female in terms of gender. Also, in terms of age range, nurses over 40 years old (56%) formed the majority of the sample. Also, in terms of marital status, the majority of the sample of the study (85%) and the highest level of education of the respondents (77%) were bachelor. In addition, the highest percentage of participants in this study (49%) has 20 to 30 years of work experience. Finally, in terms of the type of employment, nurses were in the first rank with a plan-contract employment rate of 52%. Demographic information of nurses is shown in Table 1.

Table 2 showed the organizational climate perceived by nurses. In this table, it is mentioned that more than half of the nurses (66 people) with a mean score ( $93.1 \pm 17.1$ ) have a positive perception of the organizational climate in the mentioned hospitals. Among the items in this section, customer service with an average score ( $12.15 \pm 2.25$ ) is in the first category, followed by the hospital reputation ( $10.23 \pm 3.11$ ) in the second category, while the payment variable for service compensation has an average score ( $2.08 \pm 5.37$ ) in the last row.

Table 3 showed job performance between the nurses. It should be pointed out that less than one third of the nurses had a decent area of performance ( $179.67 \pm 16.37$ ). Among the performance indicators, the expected behavior of the hospital with an average score ( $73.41 \pm 12.02$ ) is in the first place and education with an average score ( $21.91 \pm 7.49$ ) are in the last rank. Table 3 presents the relationship between nurses' performance level and their personal and occupational characteristics. As it was observed that there is a significant relationship between nurses' performance levels

**Table 1.** Demographic Characteristics of Nurses in the Sample

Variable & Grouping	Frequency (%)
<b>Gender</b>	
Man	13 (0.13)
Female	95 (0.87)
<b>Age</b>	
> 30	18 (0.16)
30 > 40	32 (0.30)
≤ 40	58 (0.54)
<b>Marital status</b>	
Married	91 (0.85)
Single	16 (0.15)
<b>Education</b>	
Diploma & associate degree	12 (0.11)
Bachelor	83 (0.77)
Masters	11 (0.10)
P.H.D	2 (0.02)
<b>Work experience</b>	
> 10	9 (0.08)
10 > 20	22 (0.2)
20 > 30	62 (0.58)
≥ 30	15 (0.14)
<b>Employment type</b>	
Official	18 (0.16)
Contract	35 (0.32)
Work plan - contract	55 (0.52)

and their individual and professional features.

Table 4 shows the relationship between the average perceived organizational score of nurses and their personal and occupational characteristics. As shown in the table, the highest mean scores obtained from the perceived organizational climate in female nurses and women over 40 years of age who had 20 to 30 years of work experience and contract employment status and bachelor's degree. Also, the relationship between the mean perceived organizational score of nurses and their personal and occupational characteristics is statistically significant. Table 4 shows the relationship between organizational climate and nurses' job performance. According to the data in the table, it can be deduce that there is a statistically significant relationship between nurses' perceptions of organizational climate and their job performance ( $P \leq 0.048$ ).

**Table 2.** Perceived Organizational Climate According to Nurses (108 People)

Perceived Organizational Dimensions	Positive Perception of Organizational Climate, No. (%)	Min	Max	Mean $\pm$ SD
Customer service	40 (37.03)	4	14	12.21 $\pm$ 2.25
Hospital reputation	24 (22.22)	4	15	10.23 $\pm$ 3.11
Work facilities	35 (32.4)	3	15	10.9 $\pm$ 2.43
Participation	21 (19.44)	3	14	9.25 $\pm$ 2.98
Communication	29 (26.85)	3	15	9.02 $\pm$ 3.76
Interpersonal relationships	28 (25.92)	4	15	8.22 $\pm$ 3.11
Nurses' interests	23 (21.29)	4	15	7.05 $\pm$ 2.09
Team building	15 (15.5)	5	14	6.78 $\pm$ 2.45
Decision making	16 (13.88)	3	15	6.32 $\pm$ 3.11
Compensation payments	12 (11.11)	3	15	5.37 $\pm$ 2.08
Total	66 (61.11)	43	134	93.1 $\pm$ 17.26

## 5. Discussion

Organizational climate reflects the behavior and emotions of employees towards the work environment. Creating a positive climate in the organization is the key to success and progress of the organization and is fundamental to obtain the desired level of nurses' performance (16). Therefore, the current study investigates the relationship between nurses' perceptions of organizational climate and their performance.

Findings showed that nurses evaluated the dimensions of organizational climate, customer service, hospital reputation and work facilities as positive and the decision-making, team building and payments for service compensation as negative. Also, the findings showed that more than half of the nurses inferred a positive organizational climate. In this context, Jianwei suggested that the organizational climate is a measurable feature that staff inferred in their workplace (17). Abd El-Megeed and Ahmed also came to the conclusion that ideal morale and association and humane behavior among nurses indicate a light and positive organizational climate (18). Prior researchers have also discovered that organizational support, participatory workplace, and equitable rewards are indexes of a positive perceived organizational climate (19-21).

As mentioned earlier, nurses had the maximum average score for customer service, which indicated they respected patients and presented them with quick and efficient service.

These findings are consistent with Wu and Norman (22) and Abd El-shafy, who suggested that nurses interact well with patients and the others people (23).

In contrast, the lowest average point was considered for payment of service compensation. This showed that most nurses stated that they did not have adequate score and fair salaries compared with other hospitals. The re-

sults of the study are in accordance with Aiken et al., Who based on a study of the workplace of nurses in 12 European countries concluded a high percent of nurses had a positive view of the organizational climate (24). In addition, the results of the study were consistent with El-Ghabor; who discover that nurses perceive their organizational status positively (25). These results are consistent with the results of Giacomo (26) And Mrayyan (27). Conversely, Van Bogaert et al, stated nurses were dissatisfied with their workplace (28). In addition, El-Salam et al. suggested that most nurses working in various units understand an average organizational climate (29).

This study also showed that less than one third of nurses have a high level of performance. Meanwhile, most of them have an unacceptable level of performance, which is somewhat consistent with Shehata studies (30). Regarding the areas of performance, the research findings showed that based on the average score obtained, the expected behavior of the hospital, nursing process, quality of care and education are in the first to fourth ranks, respectively. This level of poor performance indicates that most nurses need training to improve their performance and change their attitude in order to increase the quality of care provided to patients. This is in line with the results of Fathi's research, who claimed the quality of nurses' performance is under the influence by the absence of training and instruction in performing their duties (31). In this regard, Ali clarified that education and development as well as the supportive organizational climate is urgent requirements for improving the performance of nursing staff (32).

The present study noted: Married and elderly nurses who have experience and level of undergraduate education have statistically significant difference better performance than other nurses. The reason for this is that this category of nurses has worked in the hospital for a long time and has enough knowledge and skills to improve

**Table 3.** Relationship between Nurses' Average Score of Organizational Climate and Their Personal and Professional Characteristics

Personal and Professional Characteristics	Organizational Climate		
	Mean $\pm$ SD	Statistics	P
Gender			
Man	92.5 $\pm$ 17.12	$t = 1.69$	0.002
Female	105.8 $\pm$ 16.96		
Age			
> 30	95.12 $\pm$ 15.28	$F = 2.37$	0.031
30 > 40	87.95 $\pm$ 19.57		
$\leq$ 40	97 $\pm$ 15.72		
Marital status			
Married	93.07 $\pm$ 18.01	$t = 2.59$	0.000
Single	96.57 $\pm$ 19.8		
Education			
Diploma & associate degree	94.02 $\pm$ 11.21	$F = 0.543$	0.041
Bachelor	94.05 $\pm$ 19.76		
Masters	89.22 $\pm$ 13.28		
P.H.D	88.01 $\pm$ 16.39		
Work experience			
> 10	87.23 $\pm$ 18.21	$F = 2.117$	0.003
10 > 20	79.38 $\pm$ 16.34		
20 > 30	89.17 $\pm$ 17.78		
$\geq$ 30	86.09 $\pm$ 18.89		
Employment type			
Official	81.34 $\pm$ 16.89	$F = 2.438$	0.000
Contract	85.39 $\pm$ 18.21		
Work plan - contract	79.09 $\pm$ 19.21		

performance. This result is consistent with the results of Rabeel's research, who claimed that nurses with years of nursing experience have a high performance due to the expertise and knowledge gained. (33). This is consistent with the results of Rafaat research who claimed that there is a significant relationship between performance level and nursing competence. In this way, nurses with higher education compared to nurses with lower education, generally have a higher level of performance (26). In addition, the positive relationship between age and performance was consistent with the findings of Serra who demonstrated that there is a positive statistical relationship between nurses' age and their performance (34). Shehata also discovered that older nurses have more experience in providing nursing care to patients with serious illness. In addition, they had more confidence in pursuing and enforcing nursing care standards (35).

In addition, the results of the study show that there is a

significant positive relationship between nurses' inference of climate and their performance. This result is consistent with the results of the study of Nojehdehi and colleagues who compared the relationship between organizational climate and nurses' leave intention to their jobs in various hospitals and stated that organizational climate is an important issue in increasing the quality of performance and achieving the goals of hospitals (36). Also, Galler et al. stated that a positive work climate motivates employees and leads them to use all their capacity and abilities to perform work duties. As a result, it leads to better job performance (2). This claim is also confirmed by Soleiman and the Jezayer. They argued that when an organization that has a positive work climate and seeks to raise the effectiveness of its staff with the help and support, it can expect to see its employees more satisfied and committed to the organization (37). This is in line with the opinion of Bahramia et al (38). Chahal et al. also indicated that a favorable workplace reflects the loyalty of employees to the organization and their high efficiency in performing their duties (39). In other studies, researchers have found positive relationship between organizational climate and employee performance (40).

Wilmer et al., on the other hand, found that an unhealthy climate was detrimental to nurses' performance in providing quality services to patients (41). Finally, Meyer and Allen (42); and Naki and Agharsaidin (26) ensured that the favorable organizational conditions that support employees and provide good working conditions for them lead to job satisfaction and as a result can lead to a top level of performance and consequently can have a high level of performance.

### 5.1. Conclusions

The present study concludes that there is a significant positive relationship between nurses' perceptions of the organization and job performance. According to many researchers, the prevailing climate in the work environment is a factor that affects performance (46, 47). As a result, hospital managers must create a positive work environment in which nurses are allowed to generate ideas, increase teamwork and creativity, and lead nurses' performance to a high level of set standards. Finally, some suggestions are made to improve the performance of nurses as follows:

- 1- All levels of health managers from the executive director to the team leader must strive to create a typical work environment which values nurses and empowers them.
- 2- Using efficacious and infallible leadership styles that pays attention for nurses' recognition, encouragement, appreciation and professional development - they have proved satisfactory impact on improving work climate.
- 3- Clarity, support and challenge should be taken into



**Table 4.** Relationship between Nurses' Performance Levels and Their Personal and Professional Characteristics

Personal and Professional Characteristics	Nurses' Performance Levels			
	Acceptable Performance (32) Frequency (%)	Unacceptable Performance (76) Frequency (%)	Statistics	Sig
Gender				
Man	1 (7.69)	12 (92.31)	$t = 2.37$	0.041
Female	31 (32.63)	64 (67.37)		
Age				
> 30	10 (55.55)	8 (44.45)	$F = 8.44$	0.000
30 > 40	8 (25)	24 (75)		
≤ 40	18 (31.03)	40 (68.97)		
Marital status				
Married	21 (23.07)	70 (76.93)	$t = 2.62$	0.003
Single	11 (68.75)	5 (31.25)		
Education				
Diploma & associate degree	3 (25)	9 (75)	$F = 8.42$	0.004
Bachelor	11 (13.25)	72 (86.72)		
Masters	8 (80)	2 (20)		
P.H.D	2 (100)	0 (0)		
Work experience				
>10	3 (33.33)	6 (66.67)	$F = 6.11$	0.029
10 > 20	7 (46.66)	15 (53.34)		
20 > 30	18 (29.04)	44 (70.96)		
≥ 30	4 (26.66)	11 (73.34)		
Employment type				
Official	8 (44.44)	10 (55.56)	$F = 3.98$	0.031
Contract	15 (42.85)	20 (57.15)		
Work plan - contract	9 (16.36)	46 (83.64)		

consideration as a crucial motivational behavior in fostering nurses' performance.

4-The nurse's competence can be improved by frequent measurement of nurses' performance and the identification of training needs to improve poor areas of performance.

5- Reward and sanction system in hospitals should be applied as a main component of nurse motivation.

6- Further research must be carried out by the scholars in this scope from other points of view considering the impact of any other overlapping variables.

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## References

1. Peltier JW, Schibrowsky JA, Nill A. A hierarchical model of the internal relationship marketing approach to nurse satisfaction and loyalty. *Eur. J. Mark.* 2013;47(5/6):899–916. doi: [10.1108/03090561311306967](https://doi.org/10.1108/03090561311306967).
2. Sönmez B, Yıldırım A. The mediating role of autonomy in the effect of pro-innovation climate and supervisor supportiveness on innovative behavior of nurses. *Eur. J. Innov. Manag.* 2019;22(1):41–58. doi: [10.1108/ejim-05-2018-0088](https://doi.org/10.1108/ejim-05-2018-0088).
3. Bronkhorst B, Vermeeren B. Safety climate, worker health and organizational health performance. *Int. J. Workplace Health Manag.* 2016;9(3):270–89. doi: [10.1108/ijwhm-12-2015-0081](https://doi.org/10.1108/ijwhm-12-2015-0081).
4. Aiswarya B, Ramasundaram G. A study on interference of work-life conflict between organisational climate and job satisfaction of women employees in the information technology sector. *Asia-Pac. J. Manag. Res. Innov.* 2012;8(3):351–60. doi: [10.1177/2319510x1200800315](https://doi.org/10.1177/2319510x1200800315).

5. Mutonyi BR, Slåtten T, Lien G. Organizational climate and creative performance in the public sector. *Eur. Bus. Rev.* 2020;**32**(4):615–31. doi: [10.1108/ebbr-02-2019-0021](#).
6. Ghosh K. Benevolent leadership in not-for-profit organizations. *Leadersh. Organ. Dev. J.* 2015;**36**(5):592–611. doi: [10.1108/lodj-12-2013-0164](#).
7. Zhang J, Liu Y. Organizational climate and its effects on organizational variables: An empirical study. *Int. J. Psychol. Stud.* 2010;**2**(2). doi: [10.5539/ijps.v2n2p189](#).
8. Martine P. *Organizational climate survey*. MHEJ; 2006. Available from: <http://www.mhei.org/consult/ocs>.
9. Awad N. *The relationship between nurses' perception of organizational work climate and their job empowerment*. Egypt: University of Alexandria; 2008.
10. Aiken LH, Sloane DM, Clarke S, Poghosyan L, Cho E, You L, et al. Importance of work environments on hospital outcomes in nine countries. *Int J Qual Health Care.* 2011;**23**(4):357–64. doi: [10.1093/intqhc/mzr022](#). [PubMed: [21561979](#)]. [PubMed Central: [PMC3136199](#)].
11. Patterson-Silver Wolf DA, Dulmus CN, Maguin E. Empirically supported treatment's impact on organizational culture and climate. *Res Soc Work Pract.* 2012;**22**(6):665–71. doi: [10.1177/1049731512448934](#). [PubMed: [23243379](#)]. [PubMed Central: [PMC3520434](#)].
12. Ghasemi B, Keshavarzi R. The relationship between organizational climate, organizational commitment and organizational citizenship behavior in a hospital environment. *Reef Resources Assessment and Management Technical Paper.* 2014;**40**(2):759–73.
13. Rubel MRB, Hung Kee DM, Rimi NN. High-performance work practices and medical professionals' work outcomes: the mediating effect of perceived organizational support. *J. Adv. Manag. Res.* 2020;**ahead-of-print**(ahead-of-print). doi: [10.1108/jamr-05-2020-0076](#).
14. Li Y, Huang H, Chen Y. Organizational climate, job satisfaction, and turnover in voluntary child welfare workers. *Child. Youth Serv. Rev.* 2020;**119**. doi: [10.1016/j.childyouth.2020.105640](#).
15. Nabirye R. *Occupational stress, job satisfaction and job performance among hospital nurses in Kampala Uganda*. Uganda: Makerere University; 2010.
16. Griffiths P, Maben J. The metrics of care. *Nurs Stand.* 2009;**23**(20):62–3. doi: [10.7748/ns.23.20.62.s58](#). [PubMed: [19266948](#)].
17. McGlynn K, Griffin MQ, Donahue M, Fitzpatrick JJ. Registered nurse job satisfaction and satisfaction with the professional practice model. *J Nurs Manag.* 2012;**20**(2):260–5. doi: [10.1111/j.1365-2834.2011.01351.x](#). [PubMed: [22380419](#)].
18. Necochea E, Fort A. Measurement and evaluation in performance improvement in international reproductive health. *Perform. Improv. Q.* 2003;**42**(8):9–13. doi: [10.1002/pfi.4930420805](#).
19. Alves DFDS, Guirardello EDB. Ambiente de trabalho da enfermagem, segurança do paciente e qualidade do cuidado em hospital pediátrico. *Rev Gaucha Enferm.* 2016;**37**(2). doi: [10.1590/1983-1447.2016.02.58817](#).
20. Liu C, Zhang L, Ye W, Zhu J, Cao J, Lu X, et al. Job satisfaction and intention to leave: a questionnaire survey of hospital nurses in Shanghai of China. *J Clin Nurs.* 2012;**21**(1-2):255–63. doi: [10.1111/j.1365-2702.2011.03766.x](#). [PubMed: [21854472](#)].
21. Becton JB, Matthews MC, Hartley DL, Whitaker LD. Using biodata as a predictor of errors, tardiness, policy violations, overall job performance, and turnover among nurses. *J. Manag. Organ.* 2015;**18**(5):714–27. doi: [10.5172/jmo.2012.18.5.714](#).
22. Cobb JR. *Registered Nurse-Performance Evaluation*. halogen; 2008. Available from: [www.halogensoftware.com](http://www.halogensoftware.com).
23. El-Ghabor GM. *The effect of work stress management training for head nurses on their job performance*. Egypt: Port Said University; 2014.
24. Bahrami MA, Barati O, Ghoroghchian MS, Montazer-Alfaraj R, Ranjbar Ezzatabadi M. Role of Organizational Climate in Organizational Commitment: The Case of Teaching Hospitals. *Osong Public Health Res Perspect.* 2016;**7**(2):96–100. doi: [10.1016/j.phrp.2015.11.009](#). [PubMed: [27169007](#)]. [PubMed Central: [PMC4850416](#)].
25. Pratono AH, Djoemadi FR, Avanti C, Sinaga NFNTB, Maharani A. Civic engagement in the Indonesia health sector. *Int. J. Health Gov.* 2019;**24**(4):244–60. doi: [10.1108/ijhg-10-2018-0057](#).
26. Abdullah Mohamed H, Gaballah S. Study of the Relationship between Organizational Climate and Nurses' Performance: A University Hospital Case. *Am. J. Nurs. Res.* 2018;**6**(4):191–7. doi: [10.12691/ajnr-6-4-7](#).
27. Mok E, Au-Yeung B. Relationship between organizational climate and empowerment of nurses in Hong Kong. *J Nurs Manag.* 2002;**10**(3):129–37. doi: [10.1046/j.1365-2834.2002.00285.x](#). [PubMed: [11982779](#)].
28. Ying L, Kunaviktikul W, Tonmukayakal O. Nursing competency and organizational climate as perceived by staff nurses in a Chinese university hospital. *Nurs Health Sci.* 2007;**9**(3):221–7. doi: [10.1111/j.1442-2018.2007.00324.x](#). [PubMed: [17688481](#)].
29. Virasombat N, Sudto M, Laohapoonrangsri B. Organizational climate and organizational commitment assessment of health care personnel in sung noen hospital, changwat nakhon ratchasima. *J. Health Sci.* 2007;**17**:273–80.
30. Wu L, Norman IJ. An investigation of job satisfaction, organizational commitment and role conflict and ambiguity in a sample of Chinese undergraduate nursing students. *Nurse Educ Today.* 2006;**26**(4):304–14. doi: [10.1016/j.nedt.2005.10.011](#). [PubMed: [16338032](#)].
31. Abd El-shafy EU. *Relation between organizational climate and staff nurses job outcome*. Egypt: Port Said University; 2013.
32. Aiken LH, Sloane DM, Bruyneel L, Van den Heede K, Sermeus W, Rn Cast Consortium. Nurses' reports of working conditions and hospital quality of care in 12 countries in Europe. *Int J Nurs Stud.* 2013;**50**(2):143–53. doi: [10.1016/j.ijnurstu.2012.11.009](#). [PubMed: [23254247](#)].
33. Giacomo RC. *An analysis of the relationship between select organizational climate factors and job satisfaction factors*. Gainesville, Florida: University of Florida; 2011.
34. Akinwale OE, George OJ. Work environment and job satisfaction among nurses in government tertiary hospitals in Nigeria. *RAMJ.* 2020;**14**(1):71–92. doi: [10.1108/ramj-01-2020-0002](#).
35. Iqbal M, Adawiyah WR, Suroso A, Wihuda F. Exploring the impact of workplace spirituality on nurse work engagement: an empirical study on Indonesian government hospitals. *Int. J. Ethics Syst.* 2020;**36**(3):351–69. doi: [10.1108/ijoes-03-2019-0061](#).
36. Bosak J, Dawson J, Flood P, Peccei R. Employee involvement climate and climate strength. *J. Organ. Eff.* 2017;**4**(1):18–38. doi: [10.1108/joepp-10-2016-0060](#).
37. Leicher V, Mulder RH. Team learning, team performance and safe team climate in elder care nursing. *Team Perform. Manag.* 2016;**22**(7/8):399–414. doi: [10.1108/tpm-04-2016-0017](#).
38. Ali SA. *The relationship between head nurses commitment and their performance*. Egypt: University of Alexandria; 2006.
39. Mohamed R. *Relationship between nurses intra group conflict and their performance at Alexandria Main University hospital*. Egypt: Alexandria University; 2006.
40. Munyewende PO, Rispel LC, Chirwa T. Positive practice environments influence job satisfaction of primary health care clinic nursing managers in two South African provinces. *Hum Resour Health.* 2014;**12**:27. doi: [10.1186/1478-4491-12-27](#). [PubMed: [24885785](#)]. [PubMed Central: [PMC4024627](#)].
41. Kabeel AR, Mosa Eisa SE. Relationship between job satisfaction and professional identity among psychiatric nurses. *Egypt. Nurs. J.* 2017;**14**(1). doi: [10.4103/2090-6021.206939](#).
42. Serra MN. Learning to be a nurse. Professional identity in nursing students. *J. Educ. Sci.* 2008;**5**(8):65–76.