Pharmacophore

ISSN-2229-5402

Journal home page: http://www.pharmacophorejournal.com



ORGANIZATIONAL CITIZENSHIP BEHAVIORS AND QUALITY OF NURSES WORK LIFE

Fariborz Roshangar¹, Reza Agheli²*, Kobra Parvan³, Parvin Sarbakhsh⁴, Solmaz Shafeh⁵, Mohammad Gholipour⁶

- 1. Assistant Professor, Department of Medical Surgical, School of Nursing and Midwifery, Tabriz University of Medical Sciences, Tabriz, Iran.
- 2. MSc of Nursing, Department of Medical Surgical, School of Nursing and Midwifery, Tabriz University of Medical Sciences, Tabriz, Iran.
- 3. Senior Lecturer in Nursing, Department of Medical Surgical, School of Nursing and Midwifery, Tabriz University of Medical Sciences, Tabriz, Iran
- 4. Assistant Professor, Department of statistics and epidemiology ,Faculty of Health Sciences ,Tabriz University of medical sciences,Tabriz , Iran.
- 5. BSc of Nursing, Intensive Care Unit of Shohada Hospital, Tabriz, Iran.
- 6. BSc student, Department of Medical Surgical, School of Nursing and Midwifery, Tabriz University of Medical Sciences.

ARTICLE INFO

Received: 03th Jun 2017 Accepted: 29th Nov 2017 Available online: 14th Dec 2017

Keywords: Work life quality, Organizational citizenship behaviors, Nurses

ABSTRACT

Background: In the health system, one of the goals of managers is improving the quality of services provided for costumers. Few factors may improve these services. Among these factors, Organizational Citizenship Behaviors (OCB) has been introduced as an effective significant factor in the quality of services provided. However, the relationship between citizenship behaviors and concepts such as quality of work life has not been determined truly. The aim of this study was to determine the relationship between OCB and nurse's quality of work life in one of the north west cities of Iran.

Material and Method: In this descriptive-correlational study, 300 individuals of the personnel of the hospitals of Tabriz were recruited by stratified systematic random sampling. Instruments for gathering data were Demographic characteristics and Quality of Nurses Work Life (QNWL) and OCB questionnaires. Data were analyzed by the SPSS version 13 software using descriptive statistics including: frequency, mean and standard deviation, and analytical statistics including: Pearson correlation coefficient, independent t-test, and variance analysis.

Results: Participants had a moderate work life quality (3.44 ± 0.72) . According to reports, OCB level was high and its relationship with variables such as type of hospital, ward of service, organizational position and type of employment was significant. In this study, the relationship between OCB and quality of work life was positive and significant.

Conclusion: OCB is one of the most effective factors on nurse's quality of work life that requires further deliberation regarding assessing other effective factors and predisposing, for making changes in nurse's quality of work life.

Copyright © 2013 - All Rights Reserved - Pharmacophore

To Cite This Article: Fariborz Roshangar, Reza Agheli, Kobra Parvan, Parvin Sarbakhsh, Solmaz Shafeh, Mohammad Gholipour, (2017), "organizational citizenship behaviors and quality of nurse's work life", *Pharmacophore*, *8*(*6S*), *e-117366*.

Introduction

Nowadays, effectiveness, is a significant factor in organizations. Thus, managers seek for employees that regardless of their personal duties, are able to accomplish further exertions and enhance organization efficiency. Managers recruit their employees based on key concepts of management such as pre-social and extra-role behaviors, basic functions, spontaneous behaviors and eventually Organizational Citizenship Behaviors (OCB) [1].

Corresponding Author: Reza Agheli, Department of Medical Surgical, School of Nursing and Midwifery, Tabriz University of Medical Sciences, Tabriz, Iran, email: reza.agheli66@gmail.com

For the first time, in the beginning of the 1980 decade, Organ and Bartman introduced OCB to the world of science and Katz and Barnard expanded it in the later studies [2]. Employee's behaviors are divided into two main categories: inner-role and extra-role [3]. Inner-role behaviors are responsibilities related to official jobs but extra-role behaviors consist of volunteer behaviors, beyond official job duties, positive, autonomic and altruism behaviors and in the field of helping the organization and others [4]. Citizenship behaviors are a collection of voluntary and autonomic behaviors that do not belong to the employee's duties in the organization but are accomplished and enhance responsibilities and organizational designation [5]. The most important elements of OCB among researchers are: *Sportsmanship, Conscientiousness, Altruism, Civic Virtue* and *Courtesy*. In 1988, Organ proposed these five elements and in 1990, Podsakof and colleagues developed a standard measuring scale with the help of a factor analysis for each of these 5 elements [5, 6]. According to findings, organizations that have staff with appropriate citizenship behaviors have better function [7, 8]. OCB effects both inner and outer organizational factors and enhance the quality of employee's organizational function. Inner organization factors are: *job satisfaction, decrease in absence days and job destructive behaviors, increase of organizational commitment, decline of the intention to leave work and improving organization atmosphere* and *spirit*. Outer organization factors are: *quality of services, loyalty of customers* and *customer satisfaction* [2].

In an analysis of 22 studies on 7000 subjects, LePine showed a positive relationship between OCB and quality of work life and job satisfaction [9]. The phrase Quality of Work Life (QWL) was first introduced by Mayo in 1930 [10]. Quality of Nursing Work Life (QNWL) determines if nurses could fulfill their essential and subjective needs by working in health care systems and eventually reaching organizational objectives [11]. Quality of work life has a major impact on employee's behavioral reactions such as organizational identity, work satisfaction, job incorporation, job effort, job function, intention to quite work and organizational change and alteration [12].

After assessing and modifying the previous QNWL versions, Brooks suggested the latest version of QNWL which consists of four dimensions: First is the work life-home life dimension or the interface between the nurses' work and home life. Second is the work design dimension is the composition of nursing work, or the actual work nurses do. Third is the practice settings in which nurses work and the impact of the work environment on both nurse and patient systems is the work context dimension. Forth is the work world, is defined as the effects of broad societal influences and change on the practice of nursing [11].

Nurse's high work pressure declines quality of work life, thus, nurses often are deprived of energy and are not able to moderate their work life and family life [13].

Employee's satisfaction and quality of work life directly effect organization's ability to provide suitable services for customers. Measuring these items provides a positive view towards work and the organization. Also, enhances efficiency, inner-motivation and organization efficacy [14]. Thus, in each organization, high quality of work life is essential for attracting and preserving employees [15].

In this field, in Dargahi and colleague's study, 74.5% of nurses were not satisfied of their work life [16]. Nursing managers must create an atmosphere that not only absorbs new nurses but preserves current nurses and prevents them from moving to other jobs [14]. Evidence indicates that work atmosphere directly effects patient outcome. In hospitals who have supportive work atmosphere, mortality rate is lower in comparison to other hospitals [17].

Literature related to the quality of work life are limited and most of the studies accomplished in this field are related to work satisfaction [18]. Quality of work life is an indicator that provides significant and constructive data to the managers and ultimately enhances employee's efficiency [19]. Reviewing literature indicated that few of the factors effective on OCB have been studied but less study has been accomplished on the relationship between quality of work life and OCB among nurses. Considering the necessity of providing suitable and high quality health-care services, high work-load, refers to health-care systems, lack of nurses, the obligation to preserve current staff and also considering the importance of quality of work life and OCB in increasing nurse's efficiency in work place and eventually elevating hospital outcome; the objective of this study was to assess the relationship between OCB and quality of nurse's work life.

Material and Methods

This descriptive-correlational study was accomplished in march 2017 among male and female nurses working in educational-therapeutic units related to the Medical Science University of Tabriz. Nurses had at least one-year clinical work experience and did not have any history of psychological distress, hospitalization in mental hospitals or using psychotherapy medications.

According to the pilot study accomplished on 30 subjects, with a 0.05 type I error and 90% testing power, the sample size was calculated as 165. In this study, the sample size was enhanced to 300 subjects. After obtaining permission from the ethic committee (No: TBZMED.REC.1394.1020) and the Research Deputy of Tabriz University of Medical Sciences, sampling was done by stratified systematic random sampling. After preparing a list of all the nurses of the hospitals, randomized sampling was administered in order to recruit nurses from each hospital in proportionate to its nurses.

Data was gathered according to a socio-demographic questionnaire, the OCB and the Quality of Nursing Work Life (QNWL) questionnaires.

For assessing nurses OCB, we used Podsakoff and colleagues' questionnaire designed in 1990. This questionnaire consists of 24 questions and 5 dimensions including: *Sportsmanship, Conscientiousness, Altruism, Civic Virtue* and *Courtesy*. For responding to questions we used the 7-point linear Likert Scale and each item was scored from 1 (strongly agree) to 7 (strongly disagree). This instrument was also translated forward-backward. After consulting with 10 bilingual experts about language and cultural adaptation, the instruments validity was assessed. Also by accomplishing a pilot study, the instruments reliability was confirmed with an 82% alpha Cronbach.

For assessing quality of nurse's work life, we used the Brooks questionnaire that consisted of 42 questions and 4 subgroups (work life-home life dimension, work design dimension, practice settings, work world). For responding to questions we used the 6-point linear Likert Scale and each item was scored from 1 (strongly agree) to 6 (strongly disagree). The questionnaire's validity coefficient, according to Brook's alpha Cronbach was minimum 0.56 to maximum 0.88. This instrument was translated forward-backward. After consulting with 10 bilingual experts about language and cultural adaptation, the instruments validity was assessed and an 87% alpha Cronbach was obtained.

After gathering all the information, data were analyzed by the SPSS version 13 software. Descriptive analysis was used for measuring frequency, mean and standard deviation. Also, for assessing the relationships between variables the Pearson correlation coefficient and Regression (adjusting cofounders) were used. The independent t-test and variance analysis were used for assessing the differences of study variables according to demographic variables.

Results

Table 1. The Frequency distribution of nurse's demographic variables, working in educational-therapeutic units related to Tabriz University of Tabriz in 2017

variables		number	percent
Sex	Male	272	90.4
	Female	29	9.6
Age (year)	≤25	25	8.3
	26-35	132	44
	36-45	110	36.7
	46-55	33	11
Marital status	Single	64	21.3
	Married	233	77.4
	Divorced	3	1
	Widow	1	0.3
Number of children	0	45	19
	1	97	40.9
	2	92	38.8
	3	2	0.8
	4	1	0.4
Nursing experience (year)	1-5	71	23.7
	6-10	82	27.3

Reza Agheli et al, 2017

Pn	armacophore, 8(6S) 2017, e-117366, Pages 9		
	11-15	68	22.7
	16-20	51	17
	>20	28	9.3
Education	Associate	8	2.7
	Baccalaureate	268	89
	Master	24	8
	PhD	1	0.3
Organizational position	Matron	23	7.6
	Clinical nurse	248	82.4
	Apprentice	27	9
	Supervisor	3	1
Working elsewhere	Clinic	8	2.7
	Private hospital	15	5
	Other jobs	2	0.7
	Not working elsewhere	276	91.7
Shift	Morning	67	22.3
	Evening	1	0.3
	Night	1	0.3
	Rotation	232	77.1
Type of employment	Official	88	29.2
	Contractual	154	51.2
	Conventional	6	2
	Determined work	4	1.3
	Apprentice	26	8.6
	Corporative	23	7.6
Salary	Not enough for expenses	100	33.2
	Enough for expenses but can't save money	177	58.8
	Enough for expenses and saving	24	8

Table 2. The Mean and SD of the items of the Organizational citizenship behaviors and Quality of work life questionnaires in each subgroup

Variable	mean	Standard deviation
Civic Virtue	4.68	1.11
Conscientiousness	6.19	0.72

Reza Agheli et al, 2017

Pharmacophore, 8(6S) 2017, e-117366, Pages 9

Altruism	5.39	0.88
Courtesy	5.88	0.89
Sportsmanship	5.87	0.81
Organizational citizenship behaviors	5.67	0.64
Work life-home life dimension	2.65	0.99
Work design dimension	3.42	0.78
work context dimension	3.85	0.91
Work world dimension	2.95	0.94
Quality of work life	3.44	0.72

According to table 2, the mean score of all the items of OCB was above 4, meaning that nurses had high organizational citizenship behaviors. Additionally, mean quality of work life was 3.44 which indicates participant's moderate quality of work life.

Table 3. The Correlation Coefficient between OCB and QNWL among nurses working in educational-therapeutic units related to Tabriz University of Tabriz in 2017

	Work life-home life dimension	Work design dimension	Work context dimension	Work world dimension	Quality of work life
Civic Virtue	0.242**	0.255**	0.323**	0.201**	0.344**
Conscientiousness	0.039	0.142*	0.174**	0.043	0.157**
Altruism	0.266**	0.256**	0.420**	0.083	0.39**
Courtesy	0.011	0.095	0.193	0.10	0.159**
Sportsmanship	-0.001	0.055	0.178**	0.034	0.127*
OCB	0.16**	0.24**	0.36**	0.13*	0.337**

^{*}P<0.05 statistically significant

According to table 3, there was a positive significant association between work life-home life dimension, work design dimension, work context dimension and work world dimension in quality of work life with OCB. In other words, with the increase of variables such as work life-home life dimension, work design dimension, work context dimension, work world dimension and also quality of work life, nurses OCB increases significantly.

Table 4. The Summary of Regression Analysis

Multiple correlation	Correlation square	Adjusted Coefficient of determination
0.38	0.144	0.133

Model	Unstandardized Coefficients	Standardized Coefficients	t-Test statics	p-value	
	β	Std. Error	Beta		
(Constant)	4.269	0.351		12.166	<0.001

^{**}P<0.01 statistically significant

Reza Agheli et al, 2017

Pharmacophore, 8(6S) 2017, e-117366, Pages 9							
Quality work life	of	0.301	0.048	0.343	6.32	<0.001	
Sex		0.137	0.118	0.063	1.159	0.247	
Work experience		0.013	0.011	0.136	1.126	0.261	
age		0.003	0.011	0.030	0.248	0.803	

Dependent Variable: OCB

P<0.05 statistically significant

Based on table 4, since all the variables had a p-value more than 0.05, none of the variables of work stress, sex, work experience and age were considered as predictors of OCB. However, the p-value of quality of work life was less than 0.05 which is able to predict OCB with a standard coefficient of 0.343. We can conclude that with an increase in quality of work life, OCB increases significantly.

Discussion

According to the results of this study, there was no statistically significant association between QNWL and sex which was in parallel with Dargahi's study [16]. However, in Wagenaar [20], Natarajan [21], Choobineh [22] and Khaghanizadeh [14] studies, women's QWL was higher than men. This is mainly due to families and society's high expectancy from men. This fact increases working hours and work load, thus expectances are not completely fulfilled and their quality of work life declines [14]. Allen believes that men's OCB is higher than women [23]. However, Kidder, Parks and Organ believe women's OCB is higher [5, 24]. Due to Podsakof et al's limited researches, in their general review research, they did not speak confidently regarding the relationship between sex and OCB [7]. Results of the present study indicate that OCB was not statistically significant among men and women which is in constant with Dehghani's study [25].

Similar to Dargahi's study, in this study, there was no statistically significant difference for marital status according to QNWL [16]. However, as argued previously, Khaghani believes QNWL is lower in men and single individuals [14]. Also, in constant with Dehghani's study, there was no association between marital status and OCB [25].

In this study, similar to Altuntas and Kyung's studies, there was a positive and significant association between age and work history and OCB. Thus, with an increase in age and work history, nurse's OCB enhances [25-27]. Maio also showed that individuals in different ages have different OCB [28]. Regarding age and work history, no statistically significant relationship was observed. However, results indicate that mean QNWL is higher in individuals younger than 25 years in comparison to middle-aged ones. This is mainly because most nurses younger than 25 years are unmarried or do not have children; thus there is no interaction between work and family life and defiantly have higher QNWL than older ones. Carllus also showed that QNWL declines with aging [29]. Nevertheles, similar to our study, Choobineh and Dargahi believe there is no association between age and QNWL [16, 22].

In constant to Dargahi's study, there was no statistically significant relationship regarding QNWL and ward of service [16]. However, in this study, there was a statistically significant association regarding nurse's OCB in different hospitals and units. Lowest OCB was observed in two hospitals where burned and mentally ill patients were treated and highest amounts was observed among two specialized eye hospitals. In Bolon's study, OCB was different among individuals in different units as well [30]. According to Allen's, perhaps this difference is because performing OCB is partially dependent on how much the staff of an organization believe they are treated fairly [31]. According to Kyung, the OCB variables are: job position, supervisor's support, the number of nurses in one nursing unite and the mean salary of one nursing unite [27]. Altuntas claims that organizations and job satisfaction are efficient factors of OCB [26]. Chu says workload has a direct effect on nurse's OCB [32].

According to findings, there is a significant association between organizational position with QNWL and OCB. Supervisors QNWL and matron's OCB were higher than other nurses. Roos claims that individuals with the least position in organizational hierarchy are more stressed due to limited partnership in decision makings [33]. Also, we can claim that they have lower QNWL. Altuntas and Kyung believe that job position is an effective factor on OCB [26, 27]. In organizations, people with higher job position tend to have higher organizational commitment in comparison to people who have lower job positions. This is mainly because stronger position, authorizes individuals to have an impact on organizational decisions. In general, those with higher authority are free to centralize their behaviors on work.

In regards to education, similar to Dargahi and Khaghanizadeh studies, there were no statistically significant difference in QNWL [14, 16]. In this study, nurse's education had no effect on OCB, which was in contradict with Chu and Dehghani's findings [25, 32]. In Chu's study, education level had a significant effect on OCB [32] and Dehghani reported that higher

education level diminishes OCB, because people with lower educational level need to have higher OCB to preserve their job position and also have promotions [25].

There were no statistically significant differences between nurse's shift and work stress and/or OCB. Also, QWL was insignificantly higher among fixed morning shifts in comparison to night shifts. In Hadley's study, nurses working in morning and evening shifts had higher QWL than nurses working in night shifts [34]. Muecke believes that cyclic shifts have negative psychological and physiological effects, especially in individuals older than 40 years [35]. Employees have higher quality of work life when they have the least negative effects on their personal life and are not distracted by unreasonable working demands. Thus, because working shifts interrupt personal and social life quality of work life decreases [36]. In Altuntas's study, work shift is defined as an effective factor on OCB [26]. According to Dehghani's study, OCB was significantly different among nurses of different shifts [25].

There were also significant differences regarding type of employment. In respect to QNWL, the highest scores were for *apprentice, contractual, official* and *corporative* nurses, respectively. In Dehghani's study there was a significant association between OCB and type of employment [25]. Work satisfaction is implied as an efficient factor on nurse's OCB [26, 28, 30]. In a study in China there was a significant relationship between work satisfaction and OCB [28]. Factors such as salary, reward, job security, workload and organizational justice have significant impact on job satisfaction and differ between types of employments [25]. Perception of organizational support and organizational justice enhances nurses OCB [37]. In the present study, since the official staff had higher salary, job security and job satisfaction than the corporative staff, they revealed higher OCB. Also, in regards to QWL, because trainee nurses have recently entered clinical settings from universities and most of them are younger than 25 years, single and without children and there has been no interaction between work and family life and have not experienced the problems related to nursing, higher QWL score has been observed in comparison to other types of employments.

In the present study, there was a direct and significant relationship between outcome sufficiency and QNWL and OCB. Kyung revealed a direct association between nurse's salary and OCB which are similar to the findings of our study [27]. Salary and reward are efficient factors on work satisfaction [25]. Carllus also believes that employee's QWL increases with higher salary [29]. In a study in Canada it was indicated that salary is an important item in QWL and effects quality of nursing care in every aspect [38]. Also, Anderson and Brooks believe that the most common reason of nurses unsatisfactory is directly related to salary [13]. The findings of Almalki [39], Dargahi [16]and Choobineh [22] regarding the relationship between salary and QNWL are in parallel with our study. According to Almalki, the most effective factors on QNWL are: unsuitable working hours, not being able to equipoise work with family demands, lack of spare time, lack of specialized opportunity growth, the society's view towards nurses and outcome [39].

In the present study, parallel to Eren, Boonrod, Khaghanizadeh and Dehghan studies, QNWL was moderate [10, 14, 40, 41]. However, in Dargahi and Hadley studies, QNWL was low [16, 34]. Similar to most of the previous studies, in the present study nurse's OCB was high [1, 37, 42]. Results regarding the relationship between QNWL and OCB indicated a positive and significant relationship in nurses. In other words, with the increase of QNWL, nurse's OCB also enhances, which is similar to Podsakoff and Hoveyda findings [43, 44]. In concordance to Yun and Salimi studies, conscientiousness or work ethic earned the highest score for OCB [1, 45, 46]. Thus, since the health personnel's job is interacted with human health, work ethic is highly important [46].

In a study by Smith in USA, the most important variables for the gradation of QNWL are salary, autonomy and independency. However, ambiguous objectives and organizational patterns and job stress have major impact on nurse's dissatisfaction of QWL [47]. According to Litter, few of the variables effective on nurse's quality of work life are: low salary, ambiguous job landscape and high job stress [48]. Job satisfaction is an important factor in nurse's OCB [26, 28, 30]. Chu believes stress effects organizational commitment which in turn effects nurses OCB. Also ambiguity in nurse's role and workload has a direct effect on nurse's OCB [32]. According to Martin, an organization that is able to prepare and preserve work place has a high quality work life. By developing an open relationship, respect, gratitude, trust, support, welfare, subjective and professional satisfaction, sense of amplitude and excellency develops for every fact including services or products [49]. By preparing a flexible work plan and variable advantageous benefits we can make a balance between work life and family life [50]. When employees and organization's interests are aligned, employees will behave in a manner that leads to effectiveness and eventually enhances QWL and efficiency [18].

Conclusion

There is a positive relationship between job attitude and OCB [7]. Quality of work life contains a wide variety of work place perspectives which effects employee's learning and health and has a positive effect on organizational commitment. Thus, it is suggested that managers pay attention to different elements of quality of nurse's work life. Subsequently, they can improve

other organizational elements such as efficiency and organizational commitment. Employees who are satisfied of their job and are committed to the organization, tend to be more involved with the OCB which motivates employee's satisfaction and commitment to move towards and against the organization's objectives and interests. If satisfaction and commitment is relatively high, a section of it is presented as OCB. According to studies, organizations who have better staff citizenship behaviors have higher functionality [7, 8]. In relation to the significance of human resources in fulfilling the objectives of health organizations, considering the effective factors on cognition and behavioral variables of the staff is essential. Thus, efficient planning for reducing nurse's job stressors and accomplishing the perspectives of OCB by holding sufficient educational courses and workshops among staff could have a significant effect on invigorating job satisfaction, trust, function and efficiency of the organization. Restricting the statistical population to nurses and not using validated clinical measuring methods such as interviewing are few of the limitations of this study.

Acknowledgment

This article was written based on a dataset of MSc. With the financial support of Tabriz University of Medical Sciences. We would like to gratitude the managers, hospitals and nurses who kindly facilitated the performance of this study.

References

- 1. Khalesi N, Ghaderi A, Khoshgam M, Borhani Nejad V, Toroski M. The relationship between organizational citizenship behavior and staffs empowerment in health centers of Tehran University of Medical Sciences: 2010. jha.iums. 2011;13(42):75-82.
- 2. Barroso Castro C, Martín Armario E, Martín Ruiz D. The influence of employee organizational citizenship behavior on customer loyalty. ijsim . 2004;15(1):27-53. DOI: http://dx.doi.org/10.1108/09564230410523321
- 3. MacKenzie SB, Podsakoff PM, Ahearne M. Some possible antecedents and consequences of in-role and extra-role salesperson performance. The journal of marketing. 1998:87-98. DOI: 10.2307/1251745
- Vandyne L, Cummings LL, Parks JM. Extra-role behaviors-In pursuit of construct and definitional clarity (a bridge over muddied waters). Research in organizational behavior: an annual series of analytical essays and critical reviews, VOL 17, 1995 Jan 1;17:215-85.
- 5. Organ DW. Organizational citizenship behavior: The good soldier syndrome: Lexington Books/DC Heath and Com; 1988
- Podsakoff PM, MacKenzie SB, Moorman RH, Fetter R. Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. The Leadership quarterly. 1990;1(2):107-42. DOI:10.1016/1048-9843(90)90009-7
- 7. Podsakoff PM, MacKenzie SB, Paine JB, Bachrach DG. Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. Journal of management. 2000;26(3):513-63. DOI: 10.1177/014920630002600307
- 8. Karam CM. Good organizational soldiers: conflict-related stress predicts citizenship behavior. ijcma. 2011;22(3):300-19. DOI: http://dx.doi.org/10.1108/10444061111152982
- 9.LePine JA, Erez A, Johnson DE. The nature and dimensionality of organizational citizenship behavior: a critical review and meta-analysis. Journal of applied psychology. 2002;87(1):52. DOI: 10.1037//0021-9010.87.1.52
- Dehghan Nayeri N, Salehi T, Ali Asadi Noghabi A. Quality of work life and productivity among Iranian nurses. Contemporary nurse. 2011;39(1):106-18.
 http://dx.doi.org/10.5172/conu.2011.39.1.106
- 11. Brooks BA. Development of an instrument to measure quality of nurses' worklife. 2001.
- 12. Sirgy MJ, Efraty D, Siegel P, Lee D-J. A new measure of quality of work life (QWL) based on need satisfaction and spillover theories. Social indicators research. 2001;55(3):241-302. DOI: 10.1023/A:1010986923468
- 13. Brooks BA, Anderson MA. Defining quality of nursing work life. Nursing economics. 2005;23(6):319-26.
- 14. Khaghanizadeh M, Ebadi A, Rahmani M. The study of relationship between job stress and quality of work life of nurses in military hospitals. Journal Mil Med. 2008;10(3):175-84.
- 15. Juh Hyun Shin PhD R. Nurse staffing, quality of care, and quality of life in US nursing homes, 1996--2011: an integrative review. Journal of gerontological nursing. 2012;38(12):46. DOI: 10.3928/00989134-20121106-04
- 16. Dargahi H, Gharib M, Goodarzi M. Quality of work life in nursing employees of Tehran University of medical sciences hospitals. Hayat. 2007;13(2):13-21.
- Laschinger HKS, Finegan J, Shamian J, Almost J. Testing Karasek's demands-control model in restructured healthcare settings: effects of job strain on staff nurses' quality of work life. Journal of nursing administration. 2001;31(5):233-43.
- 18. Rose RC, Beh L, Uli J, Idris K. An analysis of quality of work life (QWL) and career-related variables. American journal of applied sciences. 2006;3(12):2151-9.
- 19. MacKenzie SB, Podsakoff PM, Fetter R. The impact of organizational citizenship behavior on evaluations of salesperson performance. The journal of marketing. 1993:70-80. DOI: 10.2307/1252058
- 20. Wagenaar AF, Taris TW, Houtman IL, van den Bossche S, Smulders P, Kompier MA. Labour contracts in the European Union, 2000–2005: Differences among demographic groups and implications for the quality of working life and work satisfaction. European journal of work and Organizational Psychology. 2012;21(2):169-94. DOI: http://dx.doi.org/10.1080/1359432X.2010.548121

- 21. Natarajan C, Kiruthika V. Factors contributing quality of work life of employees in select magnesite companies: An empirical study. International journal of management. 2013;4:188-94.
- 22. Choobineh A, Daneshmandi H, Parand M, Ghobadi R, Haghayegh A, Zare F. The survey of quality of work life and determination of its related factors in Shiraz University of Medical Sciences Staff. Journal of ergonomics. 2013;1(2):56-62.
- 23. Allen TD. Rewarding Good Citizens: The relationship between citizenship behavior, gender, and organizational rewards1. Journal of applied social psychology. 2006;36(1):120-43. DOI: 10.1111/j.0021-9029.2006.00006.x
- 24. Kidder DL, Parks JM. The good soldier: who is s (he)? Journal of organizational behavior. 2001;22(8):939-59.DOI: 10.1002/job.119
- 25. Dehghani M, Hayavi Haghighi MH, Mostafaie D, Estebsary F, Rafati S, Khorami F. The Relationship between social capital and organizational citizenship behavior among teaching hospitals staff at Hormozgan Univercity of Medical Sciences. Journal of modern medical information sciences. 2014;1(1):25-34.
- Altuntas S, Baykal U. Organizational citizenship behavior levels of nurses and effective factors. DOI:10.5222/SHYD.2014.089
- 27. Ko YK. Identification of factors related to hospital nurses' organizational citizenship behavior using a multilevel analysis. Journal of Korean Academy of Nursing. 2008;38(2):287-97. https://doi.org/10.4040/jkan.2008.38.2.287
- 28. Miao R-T. Perceived organizational support, job satisfaction, task performance and organizational citizenship behavior in China. Journal of behavioral and applied management. 2011;12(2):105.
- 29. Carllus R, Considine G. The quality of work life to Australian employees. Available form: http://www.Acirrt.com. 2001.
- 30. Bolon DS. Organizational citizenship behavior among hospital employees: a multidimensional analysis involving job satisfaction and organizational commitment. Hospital & health services administration. 1997 Summer;42(2):221-41. PubMed PMID: 10167456. Epub 1997/07/01. eng.
- 31. Allen NJ, Meyer JP. Affective, continuance, and normative commitment to the organization: An examination of construct validity. Journal of vocational behavior. 1996;49(3):252-76. DOI:10.1006/jvbe.1996.0043
- 32. Chu CI, Lee MS, Hsu HM. The impact of social support and job stress on public health nurses' organizational citizenship behaviors in rural Taiwan. Public health nursing. 2006;23(6):496-505.DOI: 10.1111/j.1525-1446.2006.00599.x
- 33. Ross RR, Altmaier EM. Intervention in occupational stress: A handbook of counselling for stress at work: Sage; 1994.
- 34. Hadley MB, Roques A. Nursing in Bangladesh: rhetoric and reality. Social science & medicine. 2007;64(6):1153-65. DOI: http://dx.doi.org/10.1016/j.socscimed.2006.06.032
- 35. Muecke S. Effects of rotating night shifts: literature review. Journal of advanced nursing. 2005;50(4):433-9. DOI: 10.1111/j.1365-2648.2005.03409.x
- 36. Wyatt TA, Wah CY. Perceptions of QWL: A study of Singaporean employees development. Research and practice in human resource management. 2001;9(2):59-76.
- 37. Altuntas S, Baykal U. Relationship between nurses' organizational trust levels and their organizational citizenship behaviors. Journal of Nursing Scholarship. 2010;42(2):186-94.DOI: 10.1111/j.1547-5069.2010.01347.x
- 38. Sale JE, Smoke M. Measuring quality of work-life: A participatory approach in a Canadian cancer center. Journal of Cancer Education. 2007;22(1):62-6.
- 39. Almalki MJ, FitzGerald G, Clark M. Quality of work life among primary health care nurses in the Jazan region, Saudi Arabia: a cross-sectional study. Human resources for health. 2012;10(1):30.
- 40. Eren H, Hisar F. Quality of work life perceived by nurses and their organizational commitment level. Journal of human sciences. 2016;13(1):1123-32.

 DOI: http://dx.doi.org/10.14687/ijhs.v13i1.3440
- 41. Wallapa Boonrod R. Quality of working life: perceptions of professional nurses at Phramongkutkla Hospital. J Med Assoc Thai. 2009;92(1):S7-15.
- 42. Blau G, Moideenkutty U, Ingham K. Leader-member exchange as a significant correlate of organizational and occupational sportsmanship behaviors in a health services setting. Leadership in health services. 2010;23(3):219-32. http://dx.doi.org/10.1108/17511871011061046
- 43. Podsakoff PM, Ahearne M, MacKenzie SB. Organizational citizenship behavior and the quantity and quality of work group performance. 1997.
- 44. Hoveyda R, Shool S, Arefnezhad M. Study of the effect of good temperament and quality of work life on organizational citizenship behaviors. 2014.
- 45. Yun S, Cox J, Sims Jr HP, Salam S. Leadership and teamwork: The effects of leadership and job satisfaction on team citizenship. International journal of leadership studies. 2007;2(3):171-93.
- 46. Salimi M, Hasani A, Raadabadi M, Taheri Mirghaed M, Hosseini S, Bakhtiari M. The correlation between organizational citizenship behavior and job Involvement of staff at educational & private hospital. Journal of health promotion management. 2013;2(4):50-56.
- 47. Smith T. Monograph on the internet: Nursing work life satisfaction survey. CHR. 2004;2(3):13-8.
- 48. Littler C. Downsizing distemper. Sydney Morning Herald. 1997.
- 49. Lees M, Kearns S. Improving work life quality: A diagnostic approach model. Health care quarterly online case study Longwood publishing. 2005;1(2):1-5.
- 50. Kreitner R, Kinicki A, Buelens M. Organizational behaviour: McGraw Hill New York; 2002.

Reza Agheli et al, 2017Pharmacophore, 8(6S) 2017, e-117366, Pages 9