Effective factors on organizational citizenship behavior in a military hospital

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Abstract
Aims: The concept of organizational citizenship behavior and its associated factors, despite high importance especially in military hospitals, have received little attention. This research was conducted to analyze the most important organizational factors that can direct behaviors, attitudes and interactions of nurses in order to promote organizational citizenship behavior in a military hospital.

Methods: This is an applied descriptive study of correlation type, based on the structural equation model. From 504 nurses of a military hospital, 140 nurses were selected by systematic random sampling. The questionnaires of Constant Beugre's for organizational justice, Potter's for organizational commitment, Scott's for organizational trust, Hackman & Oldham’s for job satisfaction and finally, Organ’s for the organizational citizenship behavior were used. Regarding the normality of data distribution, SPSS 16 software was used for data analysis.

Results: From two paths of job satisfaction and organizational trust, only job satisfaction path was completely confirmed in the influence of various organizational trust on the organizational citizenship behavior (p<0.05).

Conclusion: Organizational justice (especially distributional justice) and organizational trust should be supported and reinforced in military hospitals. To improve the organizational trust condition, necessary efforts for more employees' support and participation in organizational decision makings and affairs are suggested, and also periodical meetings for creating harmony and agreement among managers and nurses are recommended. Also, Individual's physical and spiritual needs should be more satisfied by means of planning and measures after diagnosing injustice perception factors, in order to strengthen distributive justice’s perception.

Keywords: Organizational Justice, Organizational Citizenship Behavior, Job Satisfaction, Organizational Trust, Organizational Commitment, Path Analysis

Introduction
Nurses' activity is associated with the patients (clients) in hospital. Hospitals and centers providing the health care services are important in terms of the quality of services. Among the most important factors that can direct behaviors, attitudes and interactions of nurses toward high quality services, particularly in military hospitals is the organizational citizenship behavior (OCB). The concept of organizational citizenship behavior and related factors despite of high importance, have been of little attention in nursing [1, 2, 3].

The organizational citizenship behavior was raised for the first time by Ergan et al. in 1983. Development of this concept is originated from both Barnard's writings in 1938 on cooperation tendency and Katz' studies on performance and innovative and spontaneous behaviors in 1964, 1966 and 1978. Since organizational citizenship behavior is not a part of individuals' formal role, it is regarded as the behavioral index to answer the colleagues' relations. Organizational citizenship behavior organ can be regarded as behaviors that are not the part of organizational formal duties but affect the performance of organization. This type of behavior is a kind of extra-role behavior that stands versus in-role behaviors. In-role behaviors refer to those behaviors that are stated in the explanation of duties and formal roles of organization and are awarded and recognized by formal system of the organization. However, extra-role behaviors refer to job behaviors beyond formal roles of employees. These behaviors are optional and are not often considered in formal awarding system of the organization. Thereupon, these behaviors are beyond the usual job duties. Including this type of behavior, it can be referred to avoiding unnecessary conflicts, helping colleagues at work, tolerance of the imposed conditions to the organization, and engaging in organizational activities [3, 4, 5]. Regarding the definition, it can be anticipated that this type of behavior affects the type of attitude and nurses' behaviors and leads their activities in the direction of hospital aims and influences the quality of presented...
services.
Conducted researches in the field of organizational citizenship behavior are mostly based on three types.
A bunch of researches focus on predicting and experimental testing of factors that create organizational citizenship behavior. In this field, factors like job satisfaction, organizational commitment, organizational identity, types of organizational justice, reliance, types of leadership, the relationship between the leader and followers are stated as factors of organizational citizenship behavior creation [6]. Other categories of research focus on the outcomes of organizational citizenship behavior. In this field, factors such as the performance of organization, organizational effectiveness, organizational success, clients' satisfaction, customer loyalty and social investment are stated [6, 7, 8, 9].
The third type focuses on the meaning of OCB.
The orientation of this research was based on creating factors of organizational citizenship behavior. Although in the field of medical services some research has been conducted on organizational citizenship behavior, investigators have not found any specific research in the hospitals inside or outside of Iran.
The literature reviews indicate that although various variables are affective on organizational citizenship behavior, procedural justice variables, interactional justice and distributive justice, reliance, organizational commitment, and job satisfaction have the most frequency. Some researches show that reliance has an intermediate role in the relationship between organizational justice and organizational citizenship behavior [10, 11, 12]. Another research shows that all three dimensions of organizational justices have a positive and direct effect on organizational citizenship behavior [13]. In a research, Mardani concludes that organizational justice has a positive direct effect on citizenship behavior [14]. In Bulent's research, trust in the supervisor is obtained as the predictor variable of citizenship behaviors [15]. Lavelle concluded that organizational commitment is a mediator in the relationship between procedural organizational justice and citizenship behaviors [16]. Goris's experimental test represents the role of intermediary variable of job satisfaction between citizenship behaviors and organizational justice [17]. Laschinger and Finegan revealed that fair activities of management have positive effect on job satisfaction and organizational commitment [18]. In Cremer and Dijk's study it was clarified that by imposing justice in organizational procedures trust will increase between the manager and employee, while it strengthens the organizational identity [19].
Vorum believes that job satisfaction is the employee's reaction to the role that they play in their jobs [20]. Spector believes that job satisfaction is an attitude that shows the manner of people feeling toward their jobs generally or toward various areas [21]. Job satisfaction is considered as a psychological factor and is interpreted as the emotional compatibility with job and job condition [22]. Job satisfaction consists of an individual general attitude toward job that is in direct relationship with the individual needs. Undoubtedly, measuring employee job satisfaction and scrutinizing the strength points and weaknesses that affect the decreasing or increasing of employee's job satisfaction help organizations in presenting better services, producing more suitable products, and finally improving productivity [20].
In Porter and Lawler's theory of satisfaction performance, satisfaction at work is a type of derivational variable that the meaning or value is affected by a comparison that the individual achieves from fair bonus and in comparison to the differences between these two domains of satisfaction and dissatisfaction will be changed [20].
Trust in supervisor means employees' belief in the fact that the supervisor acts upon their favors [6]. Trust is stable confidence based on honesty, ability and type of personality [22]. Research has shown that organizational justice is the most important predictor variable of trust in the supervisor and organization. Organizational trust acts as a mediating variable between organizational justice and organizational functional results [10]. By applying justice in organizational procedures, while strengthening organizational identity, the trust will increase between the manager and employees [19].
Organizational commitment is considered as the power based on individual identity and cooperation in an organization. Managers of human resources can improve the organizational aims with knowledge of organizational commitment and determine strategies for organizational development [23]. Organizational commitment is in fact a kind of attitude toward the job that is related to the employee’s cooperation and their tendencies to stay in the organization and is affective in the employee’s job performance [24]. The organizational commitment is composed of three parts of "affective commitment", "continuance commitment" and "normative commitment". Affective commitment is defined as emotional attachment of the employee to the organization. Continuance commitment is defined as the individual's commitment based on the individual's recognition of related costs
of leaving the organization. Normative commitment is considered as the sense of moral obligation to stay in the organization [1].

Justice is a social phenomenon that has attracted the attentions of many social psychological specialists and organizational behavior teachers. According to Bayes and Tryst, justice in the organization refers to laws and social norms in management of the organization that includes how to distribute army staffs in the organization, procedures of decision making and the manner of interpersonal behaviors.

Grinberg defines the organizational justice as the fair behavior with employees. People of the organization perceive and determine the fairness of procedures and dealings through investigating and comparing the workload, work schedule, wage levels, work benefits and facilities [25]. Based on this issue, superior manager of an organization may perceive justice from decision-making procedures, while, the subordinates may perceive injustice from the same procedures. Bayes and Tryst consider three dimensions for justice that includes "distributive justice," "procedural justice," and "communicative justice." Procedural justice refers to the fairness of procedures that are used for the determination of the results of decisions. Procedures should be stable, without prejudice, and with considering the benefits of all groups and be accepted [26]. Communicative justice focuses on the method of interaction of information, respectability, and honesty of the behavior with the aim of decisions (employees').

Distributive justice represents the method of distribution of results and resources [25]. Structural equation modeling or multi-variables analysis with latent variables is a comprehensive statistical approach to test the assumptions of the relation between observed and latent variables [27].

The aim of this study was to present a model of causative relationships between procedural justice, communicative justice, distributive justice, organizational trust, organizational commitment, and job satisfaction in order to interact with each other, achieve the best explanation for organizational citizenship behavior in a military hospital.

Methods
This is a descriptive study that was performed based on the structural equation model on 504 nurses in one the military hospitals of Iran. Unofficial nurses, service forces and managers of nursing ward were all excluded. Because the sampling frame and generality of behavioral variables were determined to all the community, the systematic random sampling was used. Sample variance of 30 people was determined in pretest as 0.25. Based on the sampling formula of the limited community, the sample size was determined as 129 with the error rate of 0.75 and alpha of 0.05. Including the return rate of 90% of questionnaires after complete justification of the individuals, 140 questionnaires were distributed among those individuals who were willing to participate.

In the model of research, procedural justice variables, communicative justice and distributive justice are exogenous and variables of trust, commitment, satisfaction, and organizational citizenship behaviors are endogenous variables. The organizational justice can be considered as independent variable, trust and organizational commitment and satisfaction as mediating variables and organizational citizenship behavior as a dependent variable.

To measure justice, Constant Beugre's of 21-item scale were used, to measure the organizational commitment Scot's 6-item scale, to measure the job satisfaction Hackman and Oldham 6-question scale and to measure the organizational citizenship behavior Organ's 16-question scale were used. In all these tools that are frequently used in Iran, Likret's 5-item scale has been utilized.

In Yazdani [28], Hazrati [29], and Saeeidimezhad's [30] studies Chronbach’s alpha reliability coefficients of the standard questionnaires of organizational justice, organizational trust, organizational commitment, job satisfaction, and organizational citizenship behavior were obtained from 0.75 to 0.95.

To measure the reliability of research tools, the first sample including 30 questionnaires were studied and Chronbach’s reliability coefficient was obtained 0.82, 0.92, 0.96, 90.3, 86.7, 82.7, and 81.8 for the variables of procedural justice, communicative justice, distributive justice, organizational trust, commitment, satisfaction, and citizenship behavior, respectively.

To measure the validity of questions, factor validity was used. Factor validity is a kind of construct validity that is achieved through factor analysis [31]. Factor analysis is one of statistical techniques, which is highly applicable in human studies. In fact, use of factor analysis is necessary in the fields in which questionnaire and test are used [32]. In this study, KMO value derived from confirmatory factor analysis for three dimensions of organizational justice was 0.916 and significant level of Bartlett's test was 0.001. Explained variance for procedural justice, distributive justice and communicative justice were 33.82, 20.91, 17.24 respectively that in total 71.95% of total variance, explained the organizational justice. KMO value derived from confirmatory factor analysis of
endogenous variables i.e. trust, organizational commitment, job satisfaction, and citizenship behavior was 0.831 and significant level of Bartlett's test was 0.001. The share of each explained variance related to trust was 19.09%, related to satisfaction was 17.79%, related to organizational justice 13.91%, and related to organizational citizenship behavior was 6.65% that in total, 57.41% of total variance was explained. Regarding the achieved KMO values (greater than 0.8) and significant level of Bartlett's test related to exogenous variables (dependent) and endogenous variables (independent) of the questionnaire had a suitable validity. Based on the results of Kolmogorov-Smirnov test, variables of test had a normal distribution. Therefore, parametric tests with the help of SPSS 16 were used to analyze the data. To analyze the relationship between research variables, Pearson's correlation coefficient was used.

Results

51.2% of samples were male. 2% of the samples had a master's degree, 63% had bachelor's degree, 6% had associate degree, and the rest had diploma and below diploma degrees. 18% of the nurses had the supervision responsibility. 43% of people had less than 10 years of experience, 13% had higher than 20 years of experience, and 34% had between 10 - 20 years of experience. 7% of the samples were under 25 years old, 81% were between 25-45 years old and 12% were above 45 years old.

Table 1 - According to the mean test, the variable of distributive justice was in inappropriate situation, and variables of general justice and organizational trust were in an average situation (p<0.001)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Significance</th>
<th>Low level</th>
<th>High level</th>
<th>Varying situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational general justice</td>
<td>3.02</td>
<td>0.90</td>
<td>0.14</td>
<td>-0.12</td>
<td>0.18</td>
<td>Average</td>
</tr>
<tr>
<td>Distributive justice</td>
<td>2.27</td>
<td>1.20</td>
<td>&lt;0.001</td>
<td>-0.93</td>
<td>-0.51</td>
<td>Inappropriate</td>
</tr>
<tr>
<td>Procedural justice</td>
<td>3.42</td>
<td>0.88</td>
<td>&lt;0.001</td>
<td>0.27</td>
<td>0.58</td>
<td>Appropriate</td>
</tr>
<tr>
<td>Communicative justice</td>
<td>3.38</td>
<td>1.09</td>
<td>&lt;0.001</td>
<td>0.19</td>
<td>0.57</td>
<td>Appropriate</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>3.41</td>
<td>0.78</td>
<td>&lt;0.001</td>
<td>0.27</td>
<td>0.54</td>
<td>Appropriate</td>
</tr>
<tr>
<td>Organizational trust</td>
<td>2.86</td>
<td>1.12</td>
<td>0.06</td>
<td>-0.33</td>
<td>0.05</td>
<td>Average</td>
</tr>
<tr>
<td>Organizational commitment</td>
<td>3.99</td>
<td>0.75</td>
<td>&lt;0.001</td>
<td>0.86</td>
<td>1.12</td>
<td>Appropriate</td>
</tr>
<tr>
<td>Citizenship behavior</td>
<td>4.03</td>
<td>0.49</td>
<td>&lt;0.001</td>
<td>0.94</td>
<td>1.12</td>
<td>Appropriate</td>
</tr>
</tbody>
</table>

The variable of distributive justice was in inappropriate situation, variables of general justice and organizational trust were in an average situation, and the situation of other variables was appropriate (Table 1; p<0.001). The relation of positive and significant correlations between endogenous and exogenous model was observed (Table 2; p<0.01).

Table 2 - The results of the Pearson correlation analysis indicate the significant correlations between the organizational citizenship behavior and the variables under study (p<0.001)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Organizational general justice</th>
<th>Distributional justice</th>
<th>Procedural justice</th>
<th>Interactional justice</th>
<th>Job satisfaction</th>
<th>Organizational trust</th>
<th>Organizational commitment</th>
<th>Citizenship behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational general justice</td>
<td>1</td>
<td>0.84</td>
<td>0.82</td>
<td>0.88</td>
<td>0.70</td>
<td>0.73</td>
<td>0.37</td>
<td>0.31</td>
</tr>
<tr>
<td>Distributional justice</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedural justice</td>
<td></td>
<td>0.50</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactional justice</td>
<td></td>
<td>0.58</td>
<td>0.67</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job satisfaction</td>
<td></td>
<td>0.67</td>
<td>0.64</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational trust</td>
<td></td>
<td>0.71</td>
<td>0.71</td>
<td>0.71</td>
<td>0.54</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational commitment</td>
<td></td>
<td>0.36</td>
<td>0.26</td>
<td>0.31</td>
<td>0.54</td>
<td>0.37</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Citizenship behavior</td>
<td></td>
<td>0.35</td>
<td>0.27</td>
<td>0.44</td>
<td>0.22</td>
<td>0.39</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

The results of model of research including the variables analysis paths, significant level of effects and measurement error of variables are shown in the first graph. The relationship between the parts of model was significant in the level of p<0.05. Communicative justice had a positive, direct, and significant (0.54)
effect on the organizational trust. However, organizational trust did not have any significant effect on organizational commitment, although organizational commitment had a direct and significant (0.61) effect on organizational citizenship behavior. Thus, communicative justice from the path of trust variables and organizational commitment did not have any direct effect on organizational citizenship behavior. Distributive justice had a significant, positive, and direct effect on organizational trust (0.32); organizational trust did not have any significant effect on organizational commitment; although organizational commitment had a direct and significant effect (0.61) on organizational citizenship behavior. Therefore, distributive justice from the paths of variables of trust and organizational commitment did not have any indirect effect on organizational citizenship behavior (Table 3).

**Table 3** - Direct, indirect and general effects of variables according to the research model as the effect of row variables on the column variables

<table>
<thead>
<tr>
<th>Variable → Variable</th>
<th>Job satisfaction</th>
<th>Organizational trust</th>
<th>Organizational commitment</th>
<th>Citizenship behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct</td>
<td>Indirect</td>
<td>General</td>
<td>Direct</td>
</tr>
<tr>
<td>Distributive justice</td>
<td>0.11</td>
<td>0</td>
<td>0.11</td>
<td>0.32*</td>
</tr>
<tr>
<td>Procedural justice</td>
<td>0.69*</td>
<td>0</td>
<td>0.69*</td>
<td>0.07</td>
</tr>
<tr>
<td>Communicative justice</td>
<td>0.11</td>
<td>0</td>
<td>0.11</td>
<td>0.54*</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.14*</td>
</tr>
<tr>
<td>Organizational trust</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.20</td>
</tr>
<tr>
<td>Organizational commitment</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

*p<0.05* 

**Figure 1** - The values between the two variables in the first row indicate the effect of one variable on the other one. At the second row, the value within parenthesis indicates the level of significance of the given effect at the significance level of p<0.05. The effects which are not significant have been drawn by dotted lines. The value of model proportion indexes as the ratio of Chi square to degree of freedom are equal to CFI=0.94, 1.91, NNFI=0.94, RMSE=0.08, indicating the appropriate condition of the model.
Discussion

As it was stated, although some related researches to organizational citizenship behavior have been conducted in the field of health care and hospital, researchers have not found any research in military hospitals, inside or outside of Iran.

In their researches, Aryee, Wat and Erturk have shown that trust has a complete mediator role in the relationship between organizational justice and organizational citizenship behavior [10, 11, 12]. In this research, the average situation of organizational trust has caused all three dimensions of justice to be ineffective on organizational citizenship behavior. Naami has shown in the research that all three dimensions of organizational justice have positive and direct effect on organizational citizenship behavior [13]. The results of the present research show that only procedural justice (directly and indirectly) can be effective on organizational citizenship behavior so these results are inconsistent with Naami's results. It seems that by strengthening distributive justice and double attention to communicative justice, it is possible to update citizenship behavior from the two dimensions of mentioned justice. In the research, Mardani has concluded that organizational justice has a positive and direct effect on citizenship behavior [14] that is not compatible with the results of the present research.

In a research, Bulent has introduced the trust in supervisor, as the predictive variable of citizenship behaviors [15] that is not consistent with the results of this research. The average situation of organizational trust is compatible with the lack of influence of organizational justice on citizenship behaviors. It seems that with the improvement of distributive justice and organizational justice, one can observe the effectiveness of organizational trust on citizenship behaviors. In his research, Lavelle concluded that organizational commitment has a mediator role in the relationship between the organizational procedural justice and citizenship behaviors [16]; this result is consistent with the results of present study. Goris's experimental test represents the mediatary role of job satisfaction variable between citizenship behaviors and organizational justice [17]. Regarding the fact that the present research has analyzed the dimensions of organizational justice separately, is only consistent with Goris's test only through the path of procedural justice. Laschinger and Finegan's research shows that fair actions of managers has positive effect on job satisfaction and organizational commitment [18]. In Cremer and Dijk's research, it's been observed that by considering justice in organizational procedures the trust between the manager and employees will increase while the organizational identity will get reinforced [19]. According to what has been explained in detail, the present research is not consistent with the results of these researches, because the situation of distributive justice and justice are not appropriate. The variable of general justice and the variable of organizational trust are in average level, the distributive justice is inappropriate and the situation of other variables is appropriate. Regarding the situation of variables, it is necessary to reinforce the general justice especially distributive justice and organizational justice in the organization.

Procedural justice did not have any significant effect on organizational trust. Organizational trust also did not have any significant effect on organizational commitment. Nevertheless, organizational commitment had a positive and direct effect (0.61) on citizenship behaviors. Therefore, procedural justice did not have any indirect effect on organizational citizenship behaviors through the path of the variables of trust and organizational commitment. The effect of procedural justice on job satisfaction was achieved positive and significant (0.69). Job satisfaction also had a positive and significant effect (1.14) on organizational commitment. Therefore, procedural justice had an indirect effect on organizational citizenship behavior through the paths of job satisfaction and organizational commitment variables. To improve the situation of organizational trust, it is suggested to do serious efforts in order to support and employees and their participation in decision-making in the organization and holding periodical meetings in order to create attunement and understanding among managers and employees. Also, to reinforce the distributive justice perception, it is necessary to do programming and suitable activities to answer the physical and spiritual needs of individuals after recognizing the factors of injustice perception.

Conclusion

Regarding the importance of human resources' role in realization of strategic aims of organizations, especially health care centers and military hospitals the applicability of which has unique sensitivity in crisis, paying attention to effective factors on attitudinal and behavioral variables seems necessary. Planning in the direction of realization of three dimensions of organizational justice in different fields of hospital as an organization, has a noticeable effect on the reinforcement of attitudinal and behavioral variables including job satisfaction, trust,
commitment, and organizational citizenship behavior. The significant effect of procedural justice on satisfaction, commitment, and citizenship behavior both directly and indirectly, indicates the distinct position of this variable in improving the entire attitudinal and behavioral variables and thereupon the performance of the hospital in crisis.

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