Relationship between Psychological Empowerment of Managers and Performance Accountability in Hospitals Affiliated to Tehran University of Medical Sciences, Tehran, Iran

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**ABSTRACT**

**Introduction:** The most important function of an organization is accountability. The only sustainable competitive advantage in an organization is its workforce playing a key role in the success of the organization as a result of empowerment and job satisfaction. The aim of this study was to determine the relationship between the psychological empowerment of managers and performance accountability in the hospitals affiliated to Tehran University of Medical Sciences, Tehran, Iran.

**Materials and Methods:** This cross-sectional analytical study was conducted on 110 top- and middle-level managers of 12 hospitals affiliated to Tehran University of Medical Sciences in 2014. The sample size was calculated based on the formula for determining sample size in correlation studies. The data were collected using the standard psychological empowerment questionnaire and performance accountability checklist. The analysis was carried out in SPSS software (version 18) using descriptive (e.g., frequency, mean, and percentage) and analytical (e.g., Pearson correlation coefficient) statistics.

**Results:** According to the results, the performance accountability of the hospitals and managers’ psychological empowerment were at a good level. Furthermore, high mean scores were obtained for feeling meaningful (4.33±0.72), competence (4.29±0.62), and impact of managers (3.81±0.78). However, “high” feeling of self-determination (3.62±0.80) and trust (3.47±0.82) obtained an average mean score. The results revealed no significant correlation between psychological empowerment and performance accountability (P>0.05).

**Conclusion:** Based on the findings, hospital managers should give more attention to weaknesses in accountability to improve the conditions in health sectors and resolve the associated problems. Empowerment of managers can play an important role in the implementation of tasks and achievement of a logical and appropriate level of accountability.

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**Introduction**

Hospital is one of the most important institutions in the new medical system (1) and manpower is the most expensive and precious...
factor in a hospital. The enormous cost of human resources in this sector highlights the necessity of directing more attention to this vital sector (2). One of the most valuable human resources is the manager of a unit. Improvement of the productivity of any organizations is closely associated with their management and human resources (3, 4). Accordingly, the success in achieving goals depends on how management is implemented (5).

Flexible structure, multi-skilled staff, and attention to empowerment programs are the most important factors to adapt to changing circumstances (6). One of the most important tools of adaptation is the empowerment of the employees (7). Thomas and Velthouse (1990) believed that this concept cannot be defined with one aspect; therefore, they entered psychological empowerment into the management literature (8). The empowerment of the managers is a matter of paramount importance since it addresses the efficiency and effectiveness of performance (9). The success of an organization hinges on effective leadership (10).

Lack of competent staff in an organization, in addition to leading to the absence, delay, and movement of the workforce, undermines the organizational performance and spiritual vitality of the employees and complicates the achievement of organizational goals (11, 12). Another factor affecting the performance in providing better services is accountability. Accountability can be considered as a strategy through which organizational performance is measured. This criteria improves customer satisfaction and causes operational efficiency (13).

Health department officials have recently identified the urgency of recognizing health optimal performance with respect to the performance standards (14). The hospitals in Iran summarize the accountability to annual reporting and traditional accountability which is the one-way flow of information in the administrative hierarchy; accordingly, they lack a systematic performance accountability (15). In terms of the private organizations, Khanlu and Zahedi stated that 68% of experts believe that the Iranian non-governmental organizations in the health field will have a tendency toward external accountability by 1404 and will be more responsive to the clients who are in a powerful position (16).

On the other hand, the common recent failures in the healthcare system have raised concerns about the health professional accountability (17). The significant increase in international attention to the issue of health, along with the demand for the accurate tracking of health progress and performance and evaluation of the impact of health policies and programs, has enhanced accountability at country and global levels (18). With this background in mind, the present study was conducted to examine the relationship between psychological empowerment of managers and performance accountability system in the hospitals affiliated to Tehran University of Medical Sciences, Tehran, Iran.

Methods

This descriptive analytical study was conducted periodically on all top- and middle-level managers of 16 teaching hospitals affiliated to Tehran University of Medical Sciences in 2014. The sample size was calculated based on the formula for determining sample size in correlation studies (19). Out of the 16 teaching hospitals, 4 hospitals were excluded from the study because of noncompliance; therefore, the checklist was completed for 12 hospitals, and 110 managers, selected through stratified random sampling technique, filled out the questionnaire.

Psychological empowerment questionnaire was used to check the status of psychological empowerment. This questionnaire contains 15 items in five dimensions, namely meaningfulness, competence, independence, efficiency, and trust, which are set according to the models presented by Thomas and Volthaus (20), Spritzer (21), and Votan and Cameron (7). This instrument is rated on a five-point Likert scale (i.e., strongly agree=5, agree=4, no idea=3, disagree=2, and completely disagree=1 while 5 indicating higher empowerment). The reliability of this questionnaire was confirmed rendering a Cronbach’s alpha coefficient of 90%. Given that Cronbach’s alpha coefficient values of more than 0.7 are considered good, the reliability of this questionnaire was excellent.

The performance accountability checklist (15) was used. The checklist was completed by the researcher (with a mean score of 0-2 for each checklist; 2 being positive to evaluate the accountability performance). To ensure the accuracy and quality of the data, the purpose of the study was explained for the participants before distributing the questionnaires. The checklist was prepared according to the framework of America and Canada, in addition to gaining credit from the relevant literature. The validity of the questionnaire was assessed using the opinions of professors, university faculty members, and experts.

This checklist includes eight dimensions, including strategic planning, performance measurement, incentives, roles and responsibilities, capabilities coordination and performance expectations, performance monitoring and
reporting, stakeholder participation, and improved performance.

**Statistical analysis**

The data were analyzed in SPSS software (version 18) using descriptive statistics, Kolmogorov-Smirnov test, Pearson correlation coefficient, Chi-square test, and Fisher's exact test. P-value less than 0.05 was considered statistically significant.

**Results**

This study involved the investigation of 12 hospitals and 110 managers (i.e., 35 males and 65 females). 75 Most of the participant in the study were female (68%) and married (72.7%); moreover, they were within the age group of 41-50 years (47.3%/59.1%). The mean age of the participants was 63±6.6 years. Furthermore, 54.54% and 18.2% of the participants had 11-20 and 1-10 years of work experience, respectively. Regarding the education level, the majority of the cases (70.9%) had a bachelor's degree. Furthermore, 97 (88.2%), 4 (3.6%), and 9 (8.2%) subjects had official, contract-based, and contractual employment statuses, respectively (Table 1).

As can be seen in Table 2, performance accountability was at a good level in the studied hospitals (1.50 from 2). In addition, the managers rated their psychological empowerment as high (3.90 from 5).

As the results indicated, meaningfulness and trust had the maximum (4.33±0.72) and minimum (3.47±0.82) mean scores, respectively (Table 3).

Based on the results presented in Table 4, there was no significant relationship between managers’ psychological empowerment and performance accountability. With regard to the obtained p-values, the hypothesis regarding the presence of a significant linear relationship between the managers’ psychological empowerment and accountability was rejected.

**Table 1.** Demographic characteristics of the investigated hospital managers

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Demographic variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>35</td>
<td>32%</td>
<td>Single</td>
<td>30</td>
<td>27.3%</td>
</tr>
<tr>
<td>Female</td>
<td>75</td>
<td>68%</td>
<td>Married</td>
<td>80</td>
<td>72.7%</td>
</tr>
<tr>
<td>Total</td>
<td>110</td>
<td>100%</td>
<td>Total</td>
<td>110</td>
<td>100%</td>
</tr>
<tr>
<td>Work experience (years)</td>
<td></td>
<td></td>
<td>Education level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-10</td>
<td>23</td>
<td>20.90%</td>
<td>Associate degree</td>
<td>4</td>
<td>3.6%</td>
</tr>
<tr>
<td>11-20</td>
<td>60</td>
<td>54.54%</td>
<td>Bachelor’s degree</td>
<td>78</td>
<td>70.9%</td>
</tr>
<tr>
<td>21-30</td>
<td>27</td>
<td>24.54%</td>
<td>Master's degree or higher</td>
<td>28</td>
<td>25.5%</td>
</tr>
<tr>
<td>Age group (years)</td>
<td></td>
<td></td>
<td>Employment status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-30</td>
<td>11</td>
<td>10%</td>
<td>Official</td>
<td>97</td>
<td>88.2%</td>
</tr>
<tr>
<td>31-40</td>
<td>42</td>
<td>38.2%</td>
<td>Contract-based</td>
<td>4</td>
<td>3.6%</td>
</tr>
<tr>
<td>41-50</td>
<td>52</td>
<td>47.3%</td>
<td>Contractual</td>
<td>9</td>
<td>8.2%</td>
</tr>
<tr>
<td>51-60</td>
<td>5</td>
<td>4.5%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2.** Mean scores of performance accountability and psychological empowerment in the studied hospitals

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Minimum Mean±SD</th>
<th>Maximum Mean±SD</th>
<th>Total Mean±SD</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance accountability</td>
<td>1.23±0.89</td>
<td>1.88±0.29</td>
<td>1.50±0.22</td>
<td>Good</td>
</tr>
<tr>
<td>Psychological empowerment</td>
<td>3.42±0.77</td>
<td>4.25±0.38</td>
<td>3.90±0.58</td>
<td>High</td>
</tr>
</tbody>
</table>

**Table 3.** Mean scores of psychological empowerment dimensions in the managers of the studied hospitals

<table>
<thead>
<tr>
<th>Dimensions of psychological empowerment</th>
<th>Minimum Mean±SD</th>
<th>Maximum Mean±SD</th>
<th>Total Mean±SD</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meaningfulness</td>
<td>3.95±0.73</td>
<td>4.66±0.47</td>
<td>4.33±0.72</td>
<td>High</td>
</tr>
<tr>
<td>Competence</td>
<td>3.85±0.60</td>
<td>4.50±0.40</td>
<td>4.29±0.62</td>
<td>High</td>
</tr>
<tr>
<td>Impact</td>
<td>3.23±1.84</td>
<td>4.33±0.47</td>
<td>3.81±0.78</td>
<td>High</td>
</tr>
<tr>
<td>Self-determination</td>
<td>3.09±0.84</td>
<td>4.12±0.46</td>
<td>3.62±0.80</td>
<td>Average</td>
</tr>
<tr>
<td>Trust</td>
<td>2.88±0.91</td>
<td>3.83±0.35</td>
<td>3.47±0.82</td>
<td>Average</td>
</tr>
</tbody>
</table>

**Table 4.** Relationship of the studied variables based on Pearson correlation coefficient

<table>
<thead>
<tr>
<th>Variable</th>
<th>Performance accountability</th>
<th>Correlation</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological empowerment</td>
<td>0.59</td>
<td>0.20</td>
<td></td>
</tr>
<tr>
<td>Meaningfulness</td>
<td>0.01</td>
<td>0.97</td>
<td></td>
</tr>
<tr>
<td>Competence</td>
<td>0.03</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td>Impact</td>
<td>0.10</td>
<td>0.74</td>
<td></td>
</tr>
<tr>
<td>Self-determination</td>
<td>0.51</td>
<td>0.09</td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>0.35</td>
<td>0.25</td>
<td></td>
</tr>
</tbody>
</table>
Discussion

According to the results, hospitals had a good level of performance accountability. Consistent with our findings, Gohari (22) and Tabibi (23) reported moderate to high levels of accountability in the teaching hospitals of Iran. In another study performed by Dickert and Kass, the clients and patients had favorable perspectives regarding the hospital accountability (24).

There are a number of studies, such as the one performed by Javadi (25) in Isfahan hospitals, assessing the level of accountability. The results of the mentioned study revealed no significant difference among the investigated hospitals regarding the levels of accountability; however, the private hospitals had a higher accountability mean score than the public hospitals. Likewise, in another study that was conducted to compare the performance of public and private hospitals in Bangkok, Thailand, higher accountability and patient-centrism were reported in private hospitals, compared to those in the public hospitals (26).

There are also some studies addressing service quality gap and reporting accountability as the biggest gap. In a study conducted by Kebriaei et al. (27), the largest quality gap was observed in accountability. Accountability can be considered as a strategic tool that facilitates the measurement of organizational performance, improvement of customer satisfaction, and enhancement of operational efficiency (13). The lack of accountability leads to patients' dissatisfaction; therefore, the health sector managers should give special attention to this issue and give it a top priority.

Our results also demonstrated a high level of psychological empowerment among the managers. Accordingly, the dimensions of job significance, competence, and feeling effective had high mean scores. Nonetheless, the mean scores obtained for the sense of independence and confidence were average. The findings of a study regarding psychological empowerment among the nurses working at two medical centers in Zahedan, Iran, revealed that nurses had a high level of abilities. In the mentioned study, all components were at a desirable level, except for trust (28), which is consistent with our results.

In the current study, the lowest score was related to trust, which is in line with the findings obtained by Abili (28) and Turani (29). In the current study, hospital managers considered their job as meaningful and had feelings of competence and impact. However, they had low scores for self-determination and trusting others. The achievement of organizational goals depends on employees who have job autonomy and trust on each other. Therefore, the establishment and enhancement of a sense of trust among the workforce require the assignment of sufficient authority to individuals, specification of the scope of responsibilities, and provision of a suitable atmosphere.

Our results revealed no significant relationship between psychological empowerment and performance accountability. The lack of a significant relationship in this case is probably due to the sample size (i.e., number of hospitals).

To the best of our knowledge, no study has examined the relationship between these two variables. However, a number of studies have indicated a relationship between psychological empowerment and other variables. In this regard, psychological empowerment has been reported to have a significant association with job satisfaction (30, 31), labor productivity (32), work empowerment (33), proactive behavior (34), and organizational learning (35). One of the limitations of this study was that it only involved the investigation of managers and hospitals of one university of medical sciences; therefore, the results should be generalized cautiously. Time limit was another limitation of the present study.

Conclusion

In order to improve the conditions in health sectors, the healthcare managers should give more attention to the weaknesses in accountability to deal with the associated problems. Managers also need to be empowered with granting more authority and providing more opportunities for the middle-level managers to intervene and make decisions in order to strengthen the independence of the staff. Organizational positions should also be consistent with personal values and organizational structure that provide an appropriate environment for people and establish the sense of trust as a result of the behavior of upper-hand managers acting with honesty.

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Authors’ contributions

All authors equally contributed to this project.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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