The association between occupational ethics and job engagement with the mediating role of career adaptability among employees of Ardabil University of Medical Sciences, Iran (2017-2018)

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Abstract

Background: This study investigated the association between occupational ethics and job engagement with the mediating role of career adaptability among employees of Ardabil University of Medical Sciences, Ardabil, Iran, in 2017-2018 academic years.

Materials and Methods: This is a descriptive and correlational study. The statistical population of the study consisted of all employees of Ardabil University of Medical Sciences (300 people), of which 160 employees were selected by simple random sampling method. Work ethics, job engagement questionnaire, and career adapt-abilities scale were used for data collection. Pearson’s correlation coefficient and Kolmogorov-Smirnov test were used by SPSS software, and Lisrel software was also applied to examine the appropriateness of conceptual model of research.

Results: Based on our findings, the direct effect of work ethics on job engagement was significant (P < 0.05) with beta 0.41, on career adaptability with beta 0.30, and also the career adaptability showed a direct effect on job engagement with beta 0.24. The mediating role of the career adaptability in the association between work ethics and job engagement was statistically significant with the beta 0.07 (P < 0.05).

Conclusions: we concluded that work ethics and career adaptability are significant variables in association with job engagement in Ardabil medical university employees, and it might be taken into consideration among managers.

Keywords: Employees, Job, Engagement, Ethics, Iran.

Introduction

Job engagement is a concept that has a positive and direct association with positive outcomes such as organizational commitment, enhancing organizational-civic behaviors and job motivation (1), and is negatively related to the turnover intention (2). Job engagement is penetrating, sustainable, and positive mental state related to work, characterized by three components of enthusiasm, dedication, and absorption (3). Based on the research conducted by Bakker and Leiter, enthusiastic employees are completely fascinated by their jobs and desirably fulfill their job assignments (4), and are creative and innovative in their work (5). Therefore, job engagement as a desirable source may lead to a positive cycle of resources and thus a positive effect on health (6). Therefore, identifying its predicting variables is of great significance. The results of the research of Tladinyane and Merwe mentioned the role of career adaptability in job engagement (7). According to
Savickas’ constructivist theory, the career adaptability means acquiring the attitudes, qualifications, and behaviors that individuals employ to coordinate with their jobs; therefore, the career adaptability means adapting to the demands imposed on individuals in complex and unfamiliar situations, consisting of four dimensions of concern, control, curiosity, and trust (8). In addition to the positive outcomes caused by career adaptability for the organization, it is also affected by some factors. Duffy and Blustein in their research pointed to the association between work ethic and religion with job adaptability (9).

Nowadays, in order for creating and maintaining the motivated and hard-working employees, the concept of work ethic has become increasingly significant in all organizations (10). Work ethics is part of the life ethics that focuses on work and business at micro to macro levels, and the commitment of the individual’s or group’s mental, psychological, and physical ability to a collective thought is in line with gaining the power and inner talents of the group and individual for development (11). Work ethics is classified in four dimensions of attachment and interest in work, perseverance and seriousness, healthy human association, and collective spirit and participation. Work ethics allows employees to do their job perfectly in an organization with consequences such as organizational commitment, job performance, and reduced job burnout (12).

The research was conducted in relation to the following variables. The results of the Malaei et al. research showed that there was a positive and significant association between spirituality in the workplace and internal motivation with job engagement (13). Yener and Yeldran in their study concluded that the ethical climate had a positive effect on employee’s job engagement (14). Duffy and Blustein in their study concluded that there was a positive and significant association between work ethic and religion with the career adaptability (9). Tładinyane and Merwe in their research concluded that there was a connection between the career adaptability and the job engagement (7). Potgieter in his research concluded that there was a positive and significant association between the career adaptability and job engagement (15). Niforooshan and Salimi in their study concluded that there was a connection between career adaptability and career enthusiasm (16).

Regarding the significance and consequences of job engagement for the organization and achieving organizational goals, it is crucial to investigate the predictors of this variable in the organization. Universities, due to their inherent philosophy in expanding science and sustainable development, need more and more qualified and capable staff and professors than any other organization (17). Therefore, the study of employees’ job enthusiasm needs attention and research. On the other hand, internal research dealt less with the role of career adaptability and work ethic as the predictors of job engagement; thus, the present study was conducted to investigate the association between work ethics and job engagement with the mediating role of career adaptability among the employees of Ardabil University of Medical Sciences, Ardabil, Iran.

**Materials and Methods**

The present research was applied in terms of purpose and descriptive-correlational in terms of structural equation method (SEM). The statistical population of the study comprised all employees of Ardabil University of Medical Sciences (300 people) in 2017-2018. According to Morgan’s table (18), a desirable sample of research was 169 people. The researchers distributed 185 questionnaires. Finally, 160 complete questionnaires were collected and entered into the analysis. To collect data, a demographic questionnaire including age, sex, and education, and also work ethics, job seeking and occupational adaptability questionnaires were used. The criteria for entering the research was the willingness to respond to the questionnaire. Criteria for leaving the research was unwillingness to respond to the questionnaire and not completing the questionnaire. A simple random sampling method was used to select the sample. After receiving the license to conduct the research, the researchers came to the university and provided a complete description to each subject. Since the random selection method was simple, all employees were given the opportunity to respond to the questionnaire, and among all of them, the employees who were willing to respond to the questionnaire were selected as samples.

**Work ethics questionnaire**: Petty questionnaire (19) was used to collect data on work ethics. The questionnaire consisted of 23 items with four dimensions of attachment and interest in work (questions 1-6), perseverance and seriousness in work (questions 7-12), healthy and humanistic association at work (questions 13-17), and collective spirit and participation in work (questions 18-23). The scoring scale of this questionnaire included five-point Likert scale ranging from strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4) to strongly agree (5). A high score in the questionnaire means a high level of employee’s work ethics and a low score means a low level of employee’s work ethics. The minimum
score was 23 and the maximum score was 115. The content validity of the questionnaire was approved by prominent professors and its reliability was reported 0.85 by Golparvar and Nadi (9). The reliability of this questionnaire was obtained 0.88 using Cronbach's alpha.

**Job engagement questionnaire**: The job engagement questionnaire of Salanova and Schaufeli (20) was used to collect data on job engagement. The questionnaire consisted of 17 questions in three dimensions of professional energy (ability) (questions 1-6), self-dedication (questions 7-11), and attraction (questions 12-17). The scoring scale of this questionnaire is based on a five-point Likert scale ranging from strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4) to strongly agree (5). A high score in the questionnaire means a high level of employee’s job engagement and a low score means a low level of employee’s job engagement. The minimum score was 17 and the maximum score was 85. Naderi and Safarzadeh reported the reliability of this questionnaire as 0.95 (21). The reliability of this questionnaire in this study was obtained 0.79 using Cronbach's alpha method.

**Career adaptability questionnaire**: Savickas career adaptability questionnaire was used to evaluate the career adaptability. This questionnaire had 24 questions and 4 dimensions of concern, control, curiosity, and trust. Answering the questionnaire was based on a five-point Likert scale ranging from strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4) to strongly agree (5). A high score in the questionnaire means a high level of employee’s career adaptability and a low score means a low level of employee’s career adaptability. The minimum score was 24 and the maximum score was 120. The content validity of the questionnaire was approved and its reliability was reported 0.91 by Salehi et al. (20). In this study, the reliability of this questionnaire was obtained 0.91 using Cronbach’s alpha method.

**Data analyzing method**: Frequency, mean, standard deviation, Pearson’s correlation, Kolmogorov-Smirnov test (K-S test) by SPSS software (version 22, IBM Corporation, Armonk, NY, USA) were used to analyze the data, and SEM was used for checking the fitness of the model by Lisrel software (version 8.8).

**Results**
A number of 131 men (81.87%) and 29 women (18.21%) participated in the present study. The mean and standard deviation of age was 38.20 ± 6.11 years. 143 subjects (89.37%) were married and 17 (10.62%) were single. 92 subjects (56.87%) were bachelors, 61 (38.12%) were masters, and 7 (4.73%) were doctors. The mean and standard deviation of work ethic was 98.32 ± 10.58, the mean and standard deviation of career adaptability equaled 97.12 ± 96.10, and the mean and standard deviation of job engagement equaled 63.10 ± 15.38. To verify the validity and adequacy of the data, the Kaiser-Meyer-Olkin (KMO) index was used; the value of this indicator for career adaptability questionnaire was obtained 0.89, for job engagement questionnaire 0.91, and for work ethics questionnaire 0.82. Bartlett's test was also used to examine the correlation matrix. Bartlett’s test for all three questionnaires was smaller than the value of 0.05, and the assumption of the integrity of the correlation matrix was rejected. The presumption of data normalization was investigated using the skewness test, and the results indicated that the amount of skewness of the variables was between ±2 and -2, indicating that the data was normal (22).

Data analysis results showed that there was a positive association between job ethics and job engagement \((r = 0.64, P < 0.01)\), between the career adaptability and job engagement \((r = 0.54, P < 0.01)\), and between work ethics and career adaptability \((r = 0.60, P < 0.01)\). According to the results of the data analysis, it can be said that the direct effect of work ethics on job engagement with beta \((0.41)\) and \((t = 3.41)\) at 95% confidence level, the direct effect of career adaptability on job engagement with beta \((0.26)\) and \((t = 2.02)\) at 95% confidence level, and the direct effect of work ethics on career adaptability with beta \((0.30)\) and \((t = 2.51)\) at 95% confidence level is significant. The output results of the model are presented in figures 1 and 2. Moreover, the indirect effect coefficient of work ethics on job engagement is 0.7, indicating that the mediating role of career adaptability in the association between work ethic and job engagement is significant (Table 1, Figures 1 and 2).

<table>
<thead>
<tr>
<th>From the variable</th>
<th>To the variable</th>
<th>Direct effect</th>
<th>Indirect effect</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work ethics</td>
<td>Job engagement</td>
<td>0.41</td>
<td>0.26 × 0.30 = 0.7</td>
<td>3.41</td>
</tr>
<tr>
<td>Career adaptability</td>
<td>Job engagement</td>
<td>0.26</td>
<td>-</td>
<td>2.02</td>
</tr>
<tr>
<td>Work ethics</td>
<td>Career adaptability</td>
<td>0.30</td>
<td>-</td>
<td>2.51</td>
</tr>
</tbody>
</table>
Based on the results of table 2 and the indices presented in it, the intended conceptual model has a moderate and appropriate fit.

Table 2: Fit indices of the research model (Lisrel output)

<table>
<thead>
<tr>
<th>Model fit</th>
<th>Value</th>
<th>Ideal values (23)</th>
<th>Favorable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
<td>45.60</td>
<td>&gt; 0.50</td>
<td>Favorable</td>
</tr>
<tr>
<td>DF*</td>
<td>41.00</td>
<td>-</td>
<td>Favorable</td>
</tr>
<tr>
<td>$X^2$/df</td>
<td>1.11</td>
<td>&lt; 3</td>
<td>Favorable</td>
</tr>
<tr>
<td>RMSEA **</td>
<td>0.03</td>
<td>&lt; 0.08</td>
<td>Favorable</td>
</tr>
<tr>
<td>Goodness of fit index</td>
<td>0.94</td>
<td>&gt; 0.90</td>
<td>Favorable</td>
</tr>
<tr>
<td>Adjusted goodness of fit index</td>
<td>0.90</td>
<td>&gt; 0.90</td>
<td>Favorable</td>
</tr>
<tr>
<td>Comparative fit index</td>
<td>0.99</td>
<td>&gt; 0.90</td>
<td>Favorable</td>
</tr>
<tr>
<td>Normed fit index</td>
<td>0.93</td>
<td>&gt; 0.90</td>
<td>Favorable</td>
</tr>
</tbody>
</table>

* DF: Degree of freedom;
**RMSEA: Root mean square error of approximation

Discussion

The present study was conducted to investigate the association between work ethics and job engagement with the mediating role of career adaptability among employees of Ardebil University of Medical Sciences. The results of data analysis indicated that the direct effect of work ethics was significant on job engagement. This result is consistent with the results of the research conducted by Malaei et al. (13) and Yener and Yeldran (14).

Based on the current definitions, ethics includes the expansion of individual ethics in the organization and at the time of fulfilling one's duties, and is a kind of cultural norm that considers good and correct fulfillment with spiritual value (11). Actually, people with professional work ethics in the organization have a positive attitude toward themselves, their role, and organizational tasks, and consider working...
in the organization as inherently positive and valuable. In fact, such people attempt to be ethical in the organization and comply with ethical principles in their career (24). This is because work ethics makes these people feel positive about the organization and more willingly fulfill their tasks. The ethics of these people requires them to present the organization with more enthusiasm and dedicate themselves to the organization; moreover, fulfilling their job duties becomes attractive to them (25). This association can also be explained by the statement of Imam Ali, who considers work as the greatest recreation. In fact, ethical employees have a positive attitude toward their work and enjoy it and consider it as a tool for personal and social development. They will probably be more likely to engage in activities related to their career and will have a high job engagement (11). In other words, if work is considered as a tool for assisting humans and colleagues, it can potentially contribute to creating a friendly and sympathetic atmosphere in the workplace, which in turn will increase the employee's career engagement (26). Therefore, it can be used to encourage work ethics and ethical employees to increase job engagement.

The results of the analysis showed that the direct effect of career adaptability was significant on job engagement. This result is consistent with the results of Nilforooshan and Salimi (16), Tladinyane and Merwe, (7) and Potgieter (15).

The career adaptability is defined as a psychosocial construct that reflects the readiness and resources of the individual to deal with the predicted tasks, changes, and shocks in various roles, including job roles (8). Indeed, a person with a high level of career adaptability will have the power to adapt to the challenges in the work environment and strives to gain the attitudes, qualifications, and behaviors required to adapt to his career conditions (27). With these abilities, employees will be able to adapt to complex and unfamiliar situations in the workplace (28). In addition, job engagement is described as an enthusiasm for working with high levels of energy, mental flexibility during work, enthusiasm for investment, and resistance in dealing with problems that require specific prerequisites and abilities (5). The employees must have the ability to adapt to the challenges and job conditions as well as the abilities and attitudes necessary to carry out their duties. Actually, people with more career adaptability will be more enthusiastic about the workplace and will spend more on work. Since these people have come to believe that they have the power to adapt to the various challenges and situations of their career, they are attracted to their work and devote themselves to it (7).

The results of the data analysis showed that the direct effect of work ethics on career adaptability was significant. This conclusion is consistent with the results of Duffy and Blesin's research (13).

In explaining this finding, it can be said that the working, philosophical, social, cultural, and psychological ethics is stable when each of them influences the theoretical viewpoint and the individual, group, and organizational behavior of the employees. Philosophically, the assumptions, values, beliefs, and perceptions of managers towards their society, organization, and work provide the foundation of their theoretical and practical ethics. In fact, employees' perception of the ethics dominating working environment leads to job satisfaction and greater satisfaction in the workplace (12). In addition, how employees perceive the ethical norms and ethical behavioral practices in the society and organization is based on motivational grounds, and if manifested at the highest level in the work environment, can enhance the job attitudes (29). Therefore, it can be said that employees with high ethics can adapt to the complex challenges and situations in their job. This adaptation which is referred to as career adaptability, can be positively affected by employees' work ethics and their perception of the ethical climate of the organization.

The results of the analysis showed that work ethics through the career adaptability had an indirect effect on the employee's job engagement. This result can be explained by the direct effect of work ethics on the career adaptability, as well as the direct effect of the career adaptability on job engagement.

Eventually, it should be noted that the present research was conducted among the employees in Ardebil University of Medical Sciences; thus, it is necessary to exercise caution in generalizing the results to other populations. Therefore, based on the results of this research, it is suggested that in order to increase the employees' job engagement, organizational managers lay the groundwork and context necessary to increase the work ethics of employees which also leads to the increase in career adaptability. To this end, given the educability of work ethics, it is significant to pay close attention to the dominant ethical climate and the work ethics of the employees. It is also suggested that encouraging and modeling adaptable employees with high career adaptability increase the career adaptability of the employees.

**Conclusion**

The results of this study showed that work ethics and career adaptability were positively associated with job engagement. Thus, it can be said that work...
ethics and career adaptability are significant variables in relation to job engagement in employees, and it should be taken into consideration on the part of managers.

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Conflict of interest: None declared.

References
Occupational ethic, job engagement and career adaptability
