Original Article: The Effect of Sarableh Hospital Employees' Mental Health on Responsibility with the Mediating Role of Service Morale

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ABSTRACT

This study aimed at evaluating the effect of employees' mental health on responsibility who work in Sarableh Hospital, with the mediating role of service morale. This research was applied in terms of its purpose and nature, descriptive-correlational in terms of method, and field (survey) in data collection. The statistical population in this study includes all staff of the Sarableh Hospital in autumn 2018, and 170 people were selected according to the statistics of the University of Medical Sciences. The required sample size was estimated through the Morgan table as 115 ones who were selected by simple random sampling from the statistical population. For data collection, three mental health questionnaires with a reliability coefficient of 0.448, responsibility with a coefficient of 0.548, and service morale with a coefficient of 0.481 were also used. The structural equation modeling using PLS and SPSS software was utilized to test the hypotheses. The results revealed that mental health positively affects responsibility and accounts for 31% of changes in responsibility variability. It has an indirect effect on responsibility through the mediating variable of service morale, and 36% of the total effect of mental health on responsibility is demonstrated through the mediating variable of service morale.

Introduction

Human resources are the most prominent determining factor in the correct movement of the organization towards organizational goals. One of the main concerns of managers at various levels of the organization is how to create a suitable environment for employees so that they can perform their duties properly and have optimal performance with responsibility and a sense of commitment [3]. Human resource development is a kind of applied behavioral or social science that is mainly related to human performance in organizations and how they strive to achieve potential capabilities and

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improve performance through learning. Based on various philosophical and theoretical foundations, human resource development activities in the organization seek to achieve goals such as motivation, learning, performance, ability to change and improve knowledge, skills, and competencies [1]. Individual responsibility is a personality trait that is usually formed as an attitude in the psychological and behavioral structure of the individual and is a significant variable in social behaviors. Thus, it is of high significance in teaching social behaviors. Responsibility in the individual and social dimensions is a concept that can be a good tool for maintaining social cohesion while respecting and understanding differences. Responsibility is defined as the ability to fulfill one's obligations. Criteria related to responsibility are frequently combined with such things as success at work, academic performance, and mental health. Given the responsible person is primarily related to their age. In youth studies, it was argued that responsibility should be regarded as a vital feature of individual maturity. Nowadays, service quality is known as the main illustration of an organization's success in a competitive environment, and any decrease in customer satisfaction due to poor quality of services is a cause for concern. Human resources, as the most central part of any organization, be able to adapt to environmental changes. Human resource agility refers to the capabilities and competencies in human resources that are compatible with the current environmental conditions (i.e., the drastic trends and uncertainty). Personnel mental health is a determining factor in enhancing labor productivity and providing better and more effective services by any organization.

On the other hand, job satisfaction of the organization's staff shows a close relationship with these personnel's mental health and improving their performance within the organization [9]. Service morale and organizational commitment is a continuous process through which the employees of the organization believe in the goals and values of the entity and strive to achieve them. Lack of organizational commitment leads to a decrease in occupational quantity and quality, lack of

loyalty of employees to the organization, illegal and unethical activities against the organization, and reduced organizational effectiveness. Therefore, organizations should seek to find a way to increase organizational commitment and thus reduce its members' voluntary leaving to improve productivity and performance [11]. Sarableh Hospital, as one of the key medical centers, is mainly responsible for providing health services in Sarablah and Shirvan Chardavol, and as the central and executive arm of Ilam, plays a key role in achieving the goal of the Health Transformation Plan as a small national department in charge, the custodian and implementer of hospital management programs and policies through its staff in the city of Sarablah, and also the quality of the implementation of these plans depends on how its staff performs. According to the author's field studies, it was found that the staffs of Sarablah Hospital have a low level of individual responsibility in providing services to the client. The previous study indicated that no research had been conducted on the mental health of employees, and hospital managers have made no effort to improve the individual responsibility of employees. The main question of the research is whether the mental health of employees has a significant effect on human resource agility and individual responsibility, considering the mediating role of service morale?

Research Background

Masoudi (2017), in a study entitled: "*The Effect of Psychological Empowerment of Employees on Responsibility (Case Study: Satrap Polymer Vazvan Company*", aimed to investigate the effect of employee empowerment on responsibility. The statistical population included the employees of Satrap Polymer Company in Vazvan. Due to the limited size of the population, 68 subjects were selected as the sample by the census sampling method. The results revealed that employee empowerment affects responsibility. The value of the path coefficient between these two variables was 0.526, and its T value was 7.291indicating the significant effect of employee empowerment on responsibility.

Pouladi Rishhari and Omidi (2017) proposed a study entitled: "*The Impact of Communication Skills on the Mental Health of Bushehr Standard Staff from the Perspective of Neo-Behaviorists*". The study's statistical population includes all employees of the General Office of Standards of Bushehr, which included 98 people. The results indicated a positive and significant relationship between communication skills and mental health. Among the dimensions of the relationship between verbal skills and mental health, the degree of correlation is higher.

Babaian (2016) presented a study entitled: "*The Study of Mental Health Concept in the Workplace and Its Affecting Factors*". This article aimed to investigate the concept of mental health in the workplace and the factors affecting it to achieve a high level of organizational productivity. The results demonstrated that providing mental health in the workplace positively affects organizational productivity and reduces depression, stress, anxiety, mental distress, and other mental illnesses. Likewise, with the studies conducted on various scientific sources such as articles, books, etc., it was found that a high level of organizational productivity can provide and promote mental health in the workplace, etc. It was found that high organizational productivity can further provide and promote mental health in the workplace. In the proposed article, it is tried to provide recommendations for employees and managers to ensure mental health and ultimately achieve organizational productivity.

Yaghmaei and Nejat (2014) conducted a study entitled: "*The Relationship between Organizational Climate and Extent to Which Managers Pay Attention to the Factors Affecting Eduators Mental Health with Organizational Commitment*". This study aimed to examine the relationship between organizational climate and the extent to which managers pay attention to factors affecting teachers' mental health with their organizational commitment. To collect information, three questionnaires were utilized: Halpin and Kraft Organizational Atmosphere Questionnaire (OCDQ), a questionnaire measuring the attention of principals to the factors affecting teachers' mental health, and

Meyer and Allen Organizational Commitment Questionnaire. The results revealed that the organizational climate and the extent to which managers pay attention to the factors affecting teachers' mental health have the power to predict organizational commitment. The results indicated a significant relationship between organizational climate and educators' emotional and task commitment. It was also observed that there is a significant relationship between managers' attention to the factors affecting educators' mental health and their emotional and task commitment. However, there was no significant relationship between organizational climate and educators' permanent commitment. Furthermore, the research findings illustrated that there is no significant relationship between managers' attention to the factors affecting educators' mental health and their continuous commitment.

Research Methodology

The proposed research is applied in terms of purpose, nature, descriptive-correlational method, and data collection. It is a field research (survey).

The statistical population in this study is the personnel of Sarableh Hospital in autumn of 2018, which according to the statistics of the University of Medical Sciences, were 170 people, and the required sample size was estimated through Morgan table 115 ones who were selected by simple random sampling from the statistical population. The questionnaires were distributed in Sarableh Hospital so that after referring to different sections, the questionnaire was given to the hospital personnel. Finally, the collected data was analyzed by analytical tools, and the results were extracted. The data collection tools were two methods: reviewing documents and the field method. In the field method, the required data was collected about the effect of research components by designing a questionnaire and distributing distribution among the statistical sample.

Research Tool

The research tool is a questionnaire in which the positive mental health status was utilized for the mental health questionnaire proposed by Omidian and Alavi Langroudi (2008). Furthermore, to measure individual responsibility, the Ahmadi *et al.* (2013) questionnaire confirmed the validity of this structure. The reliability of this questionnaire is on the Likert scale; using Cronbach's alpha method, 0.80 was reported, which indicates good reliability of this scale (5 items); the service morale of the questionnaire was researcher-made and had 14 items in the form of Likert scale, and finally, the reliability was obtained from Cronbach's alpha for the questionnaire (0.78). Professors confirmed its validity. The questionnaires used a 5-point Likert scale, which based on the purpose of the research, the items were divided into choices (from strongly disagree to strongly agree):

Table 1. Numerical evaluation of phrases in service morale questionnaire

Questionnaire phrase options	Strongly agree	Agree	No idea	Disagree	Strongly disagree
Numerical evaluation of phrases	5	4	3	2	**1**

Both descriptive and inferential statistical methods were applied in the analysis phase. In the descriptive analysis, the frequency of general features of the respondents was initially provided as frequency and frequency percentage in tables. It should be noted that SPSS and Smart PLS software was utilized as the statistical software.

Cronbach's Alpha and Combined Reliability

Since Cronbach'S alpha is a traditional criterion for determining the reliability of structures, the PLS method uses a more modern criterion than alpha called composite reliability. This criterion was proposed by Werts *et al.*, and its advantage over Cronbach's alpha is that the reliability of structures is calculated not in absolute terms but based on the correlation of their structures with each other. As a result, both of these criteria are applied to better measure the reliability of the PLS method. Suppose the CR value for each structure is more than 0.7. In that case, it indicates suitable internal stability for the measurement model, and a value less than 0.6 indicates a lack of reliability. It is important to note that CR is a better measure of Cronbach's alpha in structural equation modeling. Because in calculating the Cronbach's alpha coefficient for each structure, all the indices are entered in the calculation with equal significance, while they are more critical for calculating the CR index with a higher factor load. This causes the CR values of the structures to be more realistic and accurate than their Cronbach's alpha .

Table 2. Combined reliability of research variables

Variable	Human resource agility	Personal responsibility	Service morale
Combined reliability	0.833	0.696	0.794

As it is evident from the calculations mentioned above, the combined reliability coefficient of the research variables is more than 0.6, indicating their desired reliability**.**

Convergent Validity

The second criterion for examining the fit of measurement models is convergent validity, which studies the degree of correlation of each structure with its items (indicators). The AVE criterion is utilized for this purpose. Magner *et al.* (1996) considered 0.4 and above sufficient for AVE.

Table 3. The AVE values for the variables under the study

Variable	Mental health	Service morale	Responsibility
Combined reliability	0.488	0.481	0.548

Divergent Validity

Another main criterion determined by divergent validity is the degree to which a structure relates to its specifications compared to that structure; hence, the acceptable divergent validity of a model indicates that a structure in the model has more interaction with its characteristics than with other structures. Fornel-Wallark's (1981) method was applied to evaluate the divergent validity by comparing the degree of correlation of a structure with its features against the correlation of that structure with others.

Table 4. Correlation matrix and divergent validity of the variables under the study

Variable	Mental health	Service morale	Responsibility
Mental health	0.669		
Service morale	0.548	0.693	
Responsibility	0.481	0.485	0.74

As indicated in Table 4, using the Fornell-Volker method, the square root of the AVE variables located in the cells in the principal diameter of the matrix was more than the correlation values arranged in the cells to the left and bottom of the original diameter. Therefore, it can be mentioned that in the proposed study, constructs (latent variables) in the model have more interaction with their indicators than with other structures. In other words, the divergent validity of the model is proper.

Findings

Descriptive and Demographic Findings

Types of research data analysis methods vary based on the type of research, research problem, nature of hypotheses, type of theorizing, and tools used to collect information. However, it can be acknowledged that these methods have common steps. In this regard, analyzing and reporting research data is a multi-step process in which the data is provided through data collection tools; they are summarized, coded, categorized, and finally processed to provide a variety of analyses and correlations between these data to test hypotheses. Indeed, data analysis consists of three primary operations: first, the description and preparation of the essential data to test the hypotheses, then analyzing the relationships between variables, and finally, comparing the observed results with the ones who were expected based on the hypotheses (Kampenhood and Heivi, 2008).

Table 5. Frequency distribution of respondents based on gender

Gender	Frequency	Percentage	Cumulative frequency
Female	63	54.8	54.8
Male	52	45.2	100
Total	**115**	**100**	

Based on findings in Table 5, 54.8% of the respondents with a frequency of 63 are females, and 45.2% of them with a frequency of 52 are male.

Table 6. Frequency distribution of respondents based on the educational status

Educational status	Frequency	Percentage	Cumulative frequency
Diploma	3	2.6	2.6
Associate degree	14	12.2	14.8
Bachelor	92	80	94.8
Mater degree and above	6	5.2	100
Total	**115**	**100**	

As depicted in Table 6, the findings of this study demonstrated that 2.6% of the studied groups with a frequency of 3 subjects in terms of education at the diploma, associate degree 12.2% with a frequency of 14 ones, bachelor degree 80% with a frequency of 92 ones and 5.2 % with a frequency of 6 individuals at the master degree and above had higher academic education.

Table 7. Frequency distribution of respondents based on age status

Age groups (years)	Frequency	Percentage	Cumulative frequency
20-25	30	26.1	26.1
26-30	31	27	53
31-35	39	33.9	87
36-40	13	11.3	98.3
Over 40	2	1.7	100
Total	115	100	
Mean: 35.3, Minimum: 22, Maximum: 56			

As seen in Table 7, the findings of this study showed that based on the age groups, 26.1% with a frequency of 30 subjects in the age group of 20- 25 years old, 27% with a frequency of 31 ones in the age group of 26-30 years old, 33.9% with a frequency of 39 ones in the age group of 31-35 years old, 11.3% with a frequency of 13 ones in the age group of 36-40 years old and 1.7% with a frequency of 2 ones in the age group of 40 years and over. Similarly, it was found that the average age of the subjects was 35.3 years old.

Table 8. Frequency distribution of respondents based on work experience status

Work experience	Frequency	Percentage	Cumulative frequency
Less than 5 years	64	55.7	55.7
5-10 years	40	34.8	90.4
11-15 years	11	9.6	100
Total	115	100	
Mean: 8.72, Minimum: 1, Maximum: 31			

As reported in Table 8, the findings indicated that 55.7% of the studied groups with a frequency of 64 subjects less than 5 years, 34.8% between 5 to 10 years with a frequency of 40 ones, 9.6% with a frequency of 11 ones in the group by 11 to 15 years of work experience. Furthermore, it was evident that their average work experience was 8.7 years, while it was found that about 90% of individuals had less than 10 years of work experience**.**

Table 9. Frequency distribution of respondents based on response to personal responsibility variable

Continuity	Frequency	Percentage	Cumulative frequency
Low	1	0.9	0.9
Medium	26	22.6	23.5
High	40	34.8	58.3
Very high	48	41.7	100
Total	**115**	**100**	

As seen in Table 9, it was determined that the personal responsibility level of 58.3% of the respondents with a frequency of 67 subjects was high, and its less level and of the other respondents (41.7) was evaluated as a very high level.

Table 10. Frequency distribution of respondents based on response to the variables of mental health items

Level	Frequency	Percentage	Cumulative frequency
Very low	0	0	0
Medium	20	17.4	17.4
High	95	82.6	100
Total	**115**	**100**	

As presented in Table 10, it was found that the level of mental health was 17.4% with a frequency of 20 subjects in the medium level, and the level of mental health was 82.6% with a frequency of 95 individuals in the high level. Also, the results indicated that the level of mental health of none of the respondents was low.

Table 11. Frequency distribution of respondents based on response to the variable items of service morale

Continuity	Frequency	Percentage	Cumulative frequency
Low	3	2.6	2.6
Average	83	72.2	74.8
High	27	23.5	98.3
Very high	2	1.7	100
Total	115	100	

As depicted in Table 11, it was found that the variable level of service morale among 2.6% with a frequency of 3 subjects at a low level, 72.2% with a frequency of 83 individuals at an average level, 23.5% with a frequency of 27 subjects at a high level and 1.7% with a frequency of 2 people at a very high level based on changing status of the service morale. Table 11 demonstrates that the level of service morale was 74.8% of subjects at the average level and less (86 ones).

Inferential Findings

Structural Equation Modeling Method

The significant coefficient of the path between mental health and service morale variables is 6.95 (based on the rule of five percent error in the rejection of zero hypotheses for out-of-range values of 1.96 to -1.96 for each model parameter) and is estimated to be greater than 1.96. Therefore, it can be illustrated that the researcher's hypothesis is confirmed with 95% confidence. Concerning the positive path

coefficient (0.548), it can be discussed that mental health has a positive effect on service morale and indicates that mental health is 55% that explains variable changes in service morale.
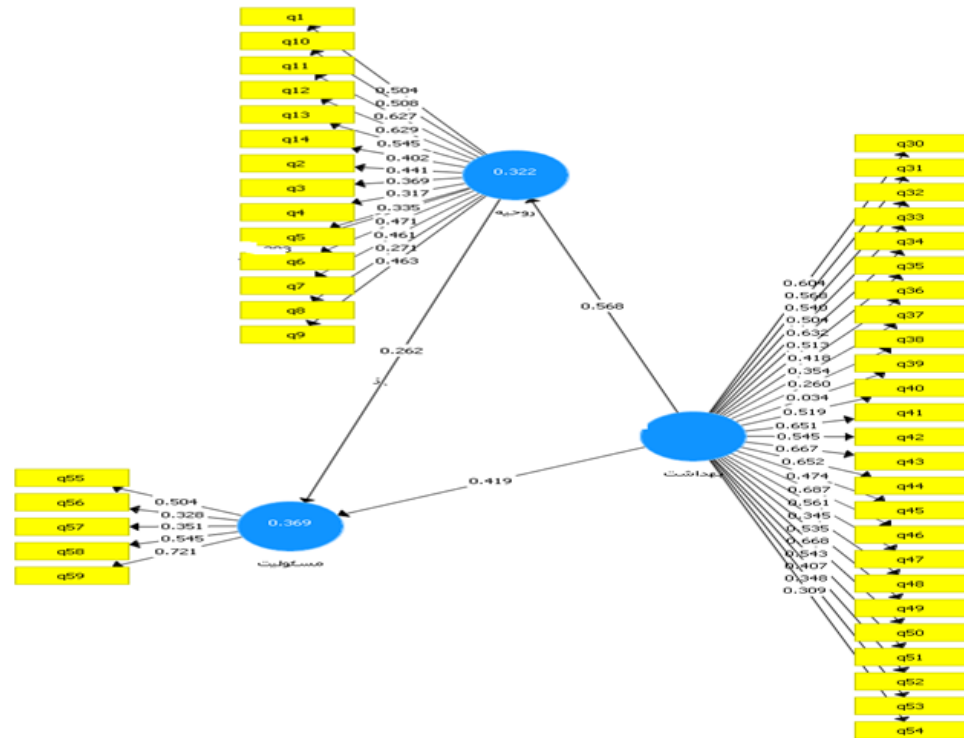

Figure 1. The implemented model with Z significance coefficients

Given the intensity of model predictive power for endogenous structures, Hensler *et al*. (2009) proposed three values of 0.02, 0.15, and 0.35, which are weak, medium, and strong values of model predictive power for internal structures, respectively, that have determined the indicator of being endogenous. Based on the value of $Q^2=0.068$ for the endogenous variable of service spirit, these endogenous variables can predict the average almost with their own structure. Regarding the value of $Q^2=0.122$ for the endogenous variable of responsibility, this endogenous variable has almost average predictability with its own structure.

Table 12. Q2 criterion for the variables of service morale and responsibility

Variable	Service morale	Responsibility
1-SSE/SSO	0.068	0.122

To measure factor loads, Figure 2 is initially drawn. The value of the criterion for the appropriateness of factor load coefficients is 0.4 (Holland, 1999). As displayed in Figure 2, the factor load of items 37 to 39, 53, 54, and 48, from the mental health variable, items 3 to 5, 8, from the service spirit variable, and items 56 and 57 of the mental health variable were less than 0.4. They were removed from the model (Figure 2).
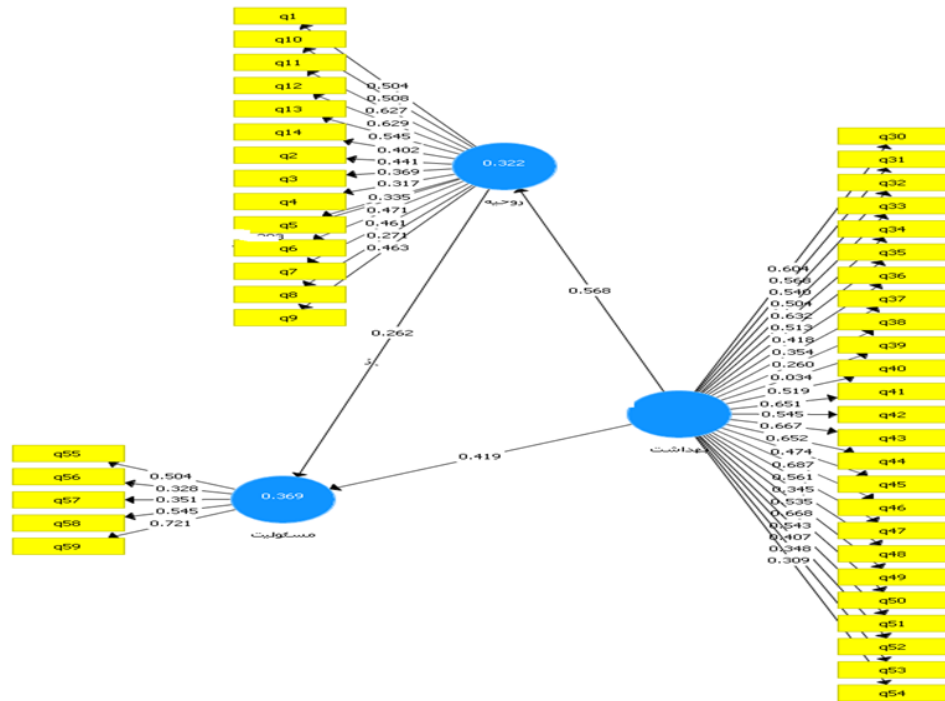
Figure 2. The implemented model after eliminating items with factor load coefficients less than 0.4

As depicted in Figure 2, the factor reload of item 52 related to the mental health variable and item 55 of the responsibility variable became less than 0.4 and was removed from the model (Figure 2). The fitting of the structural model using Z coefficients is such that the coefficients should be more than 1.96 to confirm their significance at the 95% confidence level, as indicated in Figure 3. The bootstrap command can further control the significant relationship between each item and the corresponding variable (i.e., fitting measurement models).
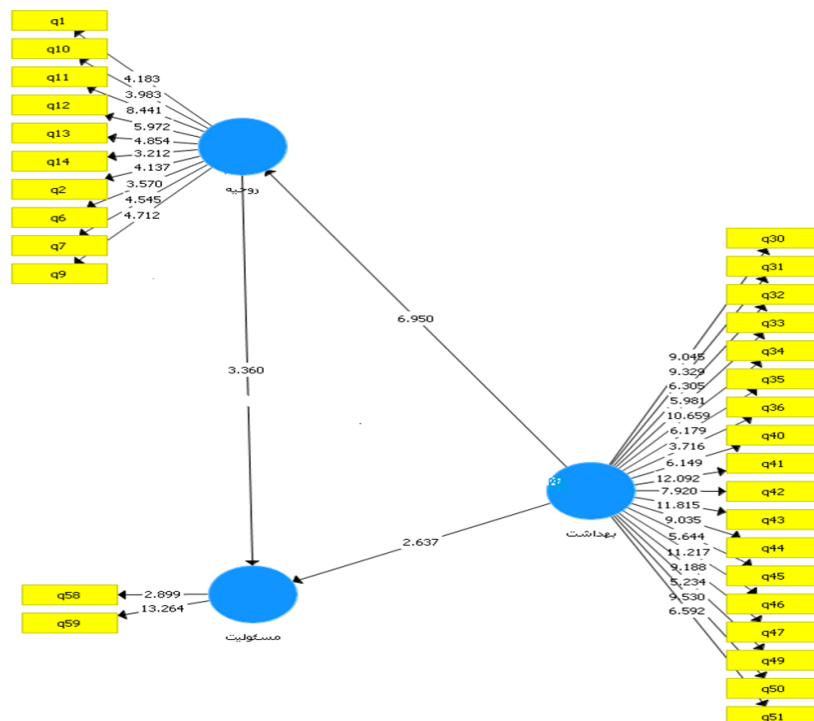

Figure 3. The implemented model with Z significant coefficients

As demonstrated in Figure (3), the Z coefficients of all items are more than 1.96.

H₁. Mental health affects service morale

As displayed in Figures (2) and (3), the significance coefficient of the path between the variables of mental health and service morale is 6.95 (based on the rule of five percent error in the rejection area of the null hypothesis for out-of-range values of 1.96 to -1.96 each parameter of the model) is estimated to be more than 1.96; hence, it can be mentioned that the researcher's hypothesis is confirmed with 95% confidence, and regarding the positive path coefficient (0.548), it can be demonstrated that mental health has a positive effect on service morale indicating mental health as 55% of variable changes in service morale.

H₂. Mental health directly affects responsibility

Based on Figures 2 and 3, the coefficient of the significance of the path between the variables of mental health and responsibility is 2.637 (regarding the rule of a five percent error in the rejection area of the null hypothesis for out-of-range values of 1.96 to -1.96 for each model parameter) is estimated to be higher than 1.96; therefore, it can be stated that the researcher's hypothesis is confirmed with 95% confidence, and given the positive path coefficient (0.308), it can be illustrated that mental health has a positive effect on responsibility indicating mental health is 31% of changes in accountability variables.

$$VAF = \frac{0.548 \times 0.316}{(0.548 \times 0.316) + 0.308} = 0.36$$

This means that 36% of the total effect of mental health on responsibility is expressed by service morale as the mediating variable.

Conclusion

The results of the proposed study indicated that mental health has a positive and significant effect on responsibility directly and indirectly through service morale. These results are consistent with the one obtained by Panahi (2015). In a study, Panahi (2015) examined the relationship between mental health and responsibility among the students of Islamic Azad University in Khorasgan Branch and found that responsibility as a prominent process of socialization in any community has a significant contribution to its development. Based on the findings of this study, responsibility has a negative and significant relationship only with the depression subscale. In this scrutiny, it was found that learners with higher depression (less mental health) have a lower responsibility level; in other words, enhancing the level of mental health leads to an increased individual responsibility level. On the other side, mental health, with its effect on service spirit, has promoted responsibility among students. It means that a high level of mental health can improve the level of service morale, which will enhance the individual responsibility level. Low responsibility among students can be a sign of their depression. Therefore, it can be argued that a person works as long as the management pays due attention to and appreciates the provided services. Otherwise, the individual shrugs off the responsibility with excuses.

Furthermore, making excuses are feature of the individuals who are not responsible. However, a person whose personality is established at the individual level of needs and is responsible is constantly striving to develop and manifest his/her talents, abilities, and values. Responsibility is one of the behaviors which lead to self-actualization. People who have reached the self-fulfillment of personality perform their duties and tasks properly are always ready to do the novel affairs and comments, and seek growth, development, and progress in their occupational and social lives. To sum up, it can be mentioned that providing mental health in the workplace positively affects organizational productivity and declines depression, stress, anxiety, mental distress, and other mental illnesses. At the same time, it can be discussed that having a high organizational productivity can provide and promote mental health in the workplace. In general, the effectiveness of all three dependent variables of research from the independent variable of research has been very high, which reveals the significance of the role and effect of mental health in improving the

agility of human resources, personal responsibility, and service spirit. Naturally, improving employees' mental health can effectively align their individual goals with organizational goals. It should be noted that despite extensive research on Internet resources, no similar studies were found to rely on the results of these variables.

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