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The Modeling of Relationship Between Motivational Factors and Increasing Employee's Efficiency in a University of Medical Sciences of a Province in Iran

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Abstract: To model the relationship of motivational factors and efficiency in the employees in an Iranian organization. In this descriptive analytic study, a number of 205 employees were selected by multistage sampling and their demographic variables and measures of physiological needs, safety, belonging, esteem and self-actualization were collected with reliability and validity evaluated questionnaire. Data were analyzed using exploratory and confirmatory factor modelings MIMIC Model based on conceptual framework. After confirmation of validity and reliability, MIMIC Model showed significant relationships between physiological, safety, belonging, esteem and self-actualization with efficiency adjusting for demographic variables with belonging and self-actualization in first priority, the esteem in the second priority, safety in the third priority and physiological in the fourth priority. It is recommended that the directors and managers, to utilize appropriate motivational factors based on priorities, needs and demands of the employees.

Key words: Motivational factors, efficiency, personnel, organization, MIMIC Model, Iran

INTRODUCTION

In today's competitive world, wherein has increased efficiency in all areas. In this turbulent world, only the organizations can survive that well use their resources and have the highest and maximum amount of efficiency. Human resources are the worthy capital of the organizations to achieve the efficiency and they are the most important factors of success or failure of a social system (Hazaveyi and Samadi, 2005).

Strategy and motivation are the most effective elements for increasing efficiency of employees in organizations. Understanding the motivational factors are necessary for increasing efficiency. To satisfy the needs and in order to increase efficiency in different organizations is practically used making motivation in staffs (Glen, 1998).

The success in organization is determined by decisions made by its employees and behaviors that they will be encouraged to do them. Providing a collaborative environment based on staff commitment by honoring their optimal behaviors, leads to increase motivation and productivity (Morrison *et al*., 2007; Potter *et al*., 1974).

Different organizations have different ways to do so. To increase motivation, creating a proper system of rewards based on team efficiency is the most challenging steps in the field of business management and economics. Create such a atmosphere in organizations has a positive effect on employees behaviors including morale, commitment, satisfaction and efficiency and will help the organizations in achieving their goals and ideals and leads to the productivity (Agyepong *et al*., 2004; Alshallah, 2004; Cheng and Robertson, 2006; Dieleman *et al*., 2003; Franco *et al*., 2004; Kalar and Wright, 2007; Kontodimopoulos *et al*., 2009; Malik *et al*., 2010; Manongi *et al*., 2006; Mathauer and Imhoff, 2006; Mbindyo *et al*., 2009; Raghuvanshi, 2002; Ruthankoon and Ogunlana, 2003).

Creating and maintaining the employee's motivation is one of the managing factors in any organization. Employee's motivational factors to meet the objectives are considered as one of the key factors in achieving competitive advantage by organization's strategists in determining the basic elements for making them (Byrne, 2006; Duma, 2003).

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There are various theories about employee motivation is an old topic but for the first time with the scientific investigations about motivation by Freuid lead to the focal point that people always want things unaware about them and hence many of their behaviors are affected by their unconscious needs or motivations.

A case study about motivation was the familiar example of a research of efficiency experts in Hawthorne plant in company of Western Electric in Illinois wherein human relations have been motivated and matured with the support of Elton Mayo (Dickson, 1973).

After the foundation of scientific management, content theories of motivation were presented by Taylor and Kilbert and Gant and after the establishment of human relations movement, content models of Maslow (1954), Herzberg *et al.* (1959) and Alderfer (1969) were presented (Parhizgar, 1990; Sarmad, 2000).

For the first time, Abraham Maslow's Theory of hierarchy of needs about human motivation was presented in 1943 based on his clinical experiences Maslow (1943, 1954).

The 1950s was a very high productive period of time in presenting concepts of motivation. Three theory, i.e., Hierarchy of Needs Theory, x, y Theory and Motivation-Health Theory was presented in this period (Parhizgar, 1990; Sarmad, 2000; Herzberg *et al*., 1959) based on studies performed found that employees knew their satisfying experiences affecting more by the factors concerned with the content and inner self of the work (Herzberg *et al*., 1959).

Parsons and Broadbridge (2006) in his research came to the conclusion that effect of motivational related factors in the workplace, successful participation of employees in the organization and enhancing the efficiency with regard to the knowledge is one the consequences of the work (Parsons and Broadbridge, 2006).

People who are highly motivated utilize these conditions as a individual power source in response to complex tasks and cause the possibilities of improving individual success and organizational efficiency. Glen (1998) in his study on the impact of motivational factors on efficiency concluded that employees sometimes are not aware of their motivational states and decrease the impact of motivation on efficiency and increase the vulnerability of employees in the organization.

Butler and Parsons (1989) believe that employees want to be respected; their expertise is recognized, to be consulted about their responsibilities, allowed to participate in decision making and to have opportunities for well doing works and creating new skills (Butler and Parsons, 1989).

The results of these theories has been practically used in some organizations to increase efficiency (Benson and Dundis, 2003).

On the other hand, employment status and conditions of employees (Hebrani *et al*., 2008; Motie *et al*., 2010) and investigating ways to increase efficiency and productivity in organizations has been a concern of many research plans and organizations. They have been explored via various ways such as increasing job satisfaction and mental health (Shareh *et al*., 2011), the effects of workplace factors (Assadi *et al*., 2010), the study of management behaviors for reducing stress (Hashemizadeh, 2006) and especially with job motivation (Hazaveyi and Samadi, 2005).

Reduction in staff motivation and responsibility in today's organizations is one of the major crises in Iran. On the other hand with regard to the opinion of some experts leading to success needs 20% effort and 80% motivation and this factor is the inspiring engine and driving force of human (Hazaveyi and Samadi, 2005). Hence, it seems necessary to perform studies in the form of scientific theories in the line with this important issue. This study aimed to:

- To develop an instrument to assess the efficiency among the staffs and managements of Alborz University of medical sciences based on Maslow's Human Motivation Theory and to establish the validity and reliability of the instrument
- To evaluate the relationship between the components of Maslow's Human Motivation Theory and efficiency among the staffs and managements of Alborz University of medical sciences using a MIMIC Model to adjust for background variables

MATERIALS AND METHODS

In this cross-sectional descriptive analytical study, the population of the study consisted of staffs and managements of Alborz University of Medical Sciences. This organization act as a strategy-based organization based on the policies of Ministry of Health and Medical Education.

This population has been formed of head department, Department of Medication, Food and Drug Administration, Department of Resources and Development Management and Department of Education and Research, Student and Cultural Affairs.

Morgan table was used to determine the sample size of the study (Krejcie and Morgan, 1970). Accordingly, with respect to the total number of people in the organization (445 subjects), considering the marginal error

of 0.05 the sample size was obtained about 205. Also this sample size consisted of with 5 to 1 rule (i.e., 5 samples per item in questionnaire) and it was adequate for performing exploratory and confirmatory factor analyses (Bryant and Yarnold, 1995; DeVellis, 2003).

For selecting the samples, a multi-stage sampling was used thus, at first was provided the list of staff areas of the study population and parts of it was randomly chosen. Afterwards, within these sectors the samples were randomly selected among managers and employees and participants completed the questionnaire.

Instruments: To conduct the study a researcher designed questionnaire was used to collect the information. Items of questionnaire were obtained regarding the information from the theoretical bases of research and the factors considered in the presented models and patterns.

With regard to the conditions governing the research organization and on management methods were identified five motivational factors that influence employee efficiency including physiological, safety, belonging, esteem and prosperity, dignity or self-actualization needs based on Maslow's Theory of Human Needs Hierarchy (Maslow, 1954).

Panel of experts was used to check the content validity of the measure which consists of 10 specialists in the fields of health service management and strategic management. According to experts plural recommendations, within the defined items were selected and was included in the questionnaire the questions that would cover any part of the theory.

Selected items were also modified where needed. Then check for potential problems, several questionnaires were completed by randomly selected members from population under study and eventually eliminate the ambiguities and difficulties with the approval of members of the panel of experts the final questionnaire was prepared and distributed.

Validity of the instruments was also reviewed and approved using exploratory and confirmatory factor analysis. Reliability (internal consistency) of the questionnaire was evaluated using Cronbach's alpha coefficient. Values >0.7 for this coefficient confirm the reliability of the scale; Cronbach's alpha for the scale of physiological, safety, belonging, esteem and self-actualization were obtained 0.78, 0.79, 0.78, 0.79 and 0.79. Thus was excellently approved the reliability of the questionnaire for each dimension.

Each of the items within the questionnaire were responded with a five options spectrum; very low, low, medium, high and very high which were rated with numbers from 1-5, respectively.

The score of each scale were computed by summing over questions associated with that scale. Thus was assigned scores for the scales of psychological needs (including 8 questions and the range of 8-40), safety (including 8 questions and the range of 8-40), belonging (including 8 questions and the range of 8-40), esteem (7 questions and the range of 7-35) and self-actualization (including 10 questions and the range of 10-50).

Based on Maslow's Theory five categories of human needs are included physiological, safety, belonging, esteem and self-actualization needs, respectively as the hierarchy of needs Maslow (1943, 1954). In addition to scales defined by Maslow's Theory were also collected in the survey a checklist of demographic variables including gender, age, marital status, education and work experience.

Statistical analysis: Data for the qualitative and quantitative variables was reported respectively as mean (SD) and frequency (percent). To check the reliability (internal consistency) was used Cronbach's alpha. Values >0.7, >0.6, >0.5 and <0.5 of the alpha shows optimal, moderate, poor and unacceptable reliability (Tinsley and Brown, 2000).

The normal distribution of data was evaluated utilizing skewness and kurtosis measures. Absolute values <1.5 and 2, respectively provide evidence of normal distribution of the scales (Munro, 2005).

For investigating the factor structure of the questionnaire in whether it consists of Maslow's Theory accurately or not was used exploratory factor analysis in two levels (with regard to the aim of study). In the first level was examined whether the questions corresponding to each scale could make it reasonably. Based on the results from the first level, scores were calculated and it was investigated whether or not can be loaded the efficiency by the Mqslow's scale. Principal axis factoring extraction and the Varimax Rotation Method (with KaseR normalization) was used for extracting the components. In addition were used KMO (Kaser-Meier-Olkin) index an Bartlett's test of sphericity to examine the adequacy of the model and the percentqge of varianbe explained was used to show how much the model was fitted (Tinsley and Brown, 2000).

To test and verify the structure extracted from the two-level exploratory factor analysis and to evaluate the research hypothesis of the study was fitted confirmatory factor analysis model to determine the whether the presented theoretical model is adequate, based on verified data and whether the coefficients for the model are significant. For the former case was used goodness of fit indices (Tinsley and Brown, 2000) and for the latter case

and to evaluate the significancy of relationships was used t-values and their associated p-values (Schumacker and Lomax, 2004).

Values <0.1 for the SRMR, <0.08 for RMSEA and values >0.9 for fit indices of CFI, NFI, NNFI, IFI and RFI confirm the fit adequacy of model (Tinsley and Brown, 2000).

Positive and negative sign show the direct and reversed relationship between. Correlations between 0.1 and 0.3, between 0.3 and 0.5 and >0.5 were considered as small, moderate and strong, respectively (Cohen, 1988). Maximum likelihood estimation method was used to fit the model and was entered the variance and covariance matrix as input data into the model.

By confirming the results of exploratory and confirmatory factor analyses would be confirmed the construct validity of questionnaire. The MIMIC Model provided a criterion for determining the significancy and the priorities of the dimensions in efficiency measure which answered the research hypothesis. In this model in addition of the dimensions defined in Maslow's Model, were entered the demographic variables. In addition to the adjustment of the relationship between Maslow's dimensions and efficiency was also evaluated the relationship between these variables and the efficiency.

Theoretical model for the CFA and MIMIC was fitted by Lisrel 8.8 Software. For other analysis was used SPSS17 Software and for all analysis $p<0.05$ was considered significant.

RESULTS AND DISCUSSION

In this study, 173 (84.4%) males and 32 females (15.6%) attended; a number of 56 (28.8%) were married and the rest of them were single including 146 persons. Education levels of 42 (20.5), 107 (52.2), 34 (6.16) and 22 (10.7%) of study participants were the Diploma and Upper Diploma, B.Sc., M.Sc. and Ph.D., respectively. Among those in the study, 79 persons (38.5), 91(44.4), 26(12.7) and 9(4.4%) were respectively in the 30-20, 40-30, 50-40 and >50 years age categories. The research experience of 73 persons (35.6), 98 (47.8) and 34 (16.6%) were in the categories below 10, 20-10 and >20 years, respectively.

Results of exploratory factor analysis in two levels: The KMO index were obtained for the first and second level model equal to 0.900 and 0.849 and was confirmed the adequacy of fitted model based on the Bartlett test for both levels ($p<0.001$ for both levels). The percentage of variance explained was for the first and second level models 92.55 and 96.56%, respectively and showed the good fit of the model at both levels. The factor loading results also confirmed that the extracted structure of each scale (first level) and in the efficiency (second level) was a reasonable structure in addition, showed the high correlation between questions and scales at first level and between scales and efficiency in the second level (Table 1). It was necessary to confirm the significance of this relationship by confirmatory factor analysis which was done.

Based on findings were the mean score of psychological equal to 25.98 (SD = 8.92) (out of 40), safety equal to 31.23 (SD = 8.14) (out of 40), belonging equal to 33.33 (SD = 6.99) (out of 40), the esteem equal to 29.60 (SD = 5.66) (out of 35) and self-actualization equal to 41.83 (SD = 8.21) (out of 50).

Also provide the skewness (absolute value <1.5) and kurtosis (absolute value <2) evidence of normal distribution in data of scales.

The floor effect (the percentage of people responding to the smallest possible score) and ceiling effect (percentage of individuals with the highest possible response) were observed between 0.5-1% and between to 39.5%, respectively (Table 2).

Results of confirmatory factor analysis in two levels: Adequacy of the model was confirmed in both levels, (Table 2), SRMR value for each of the models was <0.1 and were the values of fit indices, CFI, NFI, NNFI, IFI and RFI >0.9, respectively (Table 3).

After confirming the adequacy of the model was provided the results to examine the relationships in this model; the results of this study showed that for both the first and second level, the relationship between questions and scales and the relationship between scales and efficiency, respectively were all statistically significant ($p<0.05$ for all cases).

Thus, the first level model, the items defined in the questionnaire showed a significant relationship with the scales of Maslow's Theory which confirmed the construct validity of questionnaire in line with the results of exploratory factor analysis.

At this level, the values of model standard parameters ranged between 0.94 and 1.00 which suggests a high correlation between the questions and scales. Moreover, were the values of R^2 (in line with values of standard coefficients) in the range of 0.71 and 0.98 which also confirmed that the intensity of the relationship of questions with their corresponding scales.

Table 1: Factor loadings of exploratory factor analysis (n = 205)

			1st order factor			2nd order factor
Variables	Physiological	Safety	Belonging	Esteem	Self-actualization	Efficiency
Physiological1	0.981	-	-	-	-	-
Physiological2	0.889	-	-	-	-	-
Physiological3	0.949	-	-	-	-	-
Physiological4	0.944	-	-	-	-	-
Physiological5	0.941	-	-	-	-	-
Physiological6	0.923	-	-	-	-	-
Physiological7	0.921	-	-	-	-	-
Physiological8	0.936	-	-	-	-	-
Safety1	-	0.964	-	-	-	-
Safety2	-	0.969	-	-	-	-
Safety3	-	0.967	-	-	-	-
Safety4	-	0.975	-	-	-	-
Safety5	-	0.959	-	-	-	-
Safety6	-	0.966	-	-	-	-
Safety7	-	0.955	-	-	-	-
Safety8	-	0.956	-	-	-	-
Belonging1	-	-	0.951	-	-	-
Belonging2	-	-	0.971	-	-	-
Belonging3	-	-	0.960	-	-	-
Belonging4	-	-	0.944	-	-	-
Belonging5	-	-	0.984	-	-	-
Belonging6	-	-	0.982	-	-	-
Belonging7	-	-	0.943	-	-	-
Belonging8	-	-	0.972	-	-	-
Esteem1	-	-	-	0.990	-	-
Esteem2	-	-	-	0.931	-	-
Esteem3	-	-	-	0.988	-	-
Esteem4	-	-	-	0.985	-	-
Esteem5	-	-	-	0.988	-	-
Esteem6	-	-	-	0.981	-	-
Esteem7	-	-	-	0.971	-	-
Self-actualization1	-	-	-	-	0.986	-
Self-actualization2	-	-	-	-	0.985	-
Self-actualization3	-	-	-	-	0.976	-
Self-actualization4	-	-	-	-	0.966	-
Self-actualization5	-	-	-	-	0.974	-
Self-actualization6	-	-	-	-	0.978	-
Self-actualization7	-	-	-	-	0.975	-
Self-actualization8	-	-	-	-	0.959	-
Self-ctualization9	-	-	-	-	0.977	-
Self-actualization10	-	-	-	-	0.923	-
Physiological	-	-	-	-	-	0.954
Safety	-	-	-	-	-	0.986
Belonging	-	-	-	-	-	0.994
Esteem	-	-	-	-	-	0.983
Self-actualization	-	-	-	-	-	0.995

Table 2: Summary statistics and floor and ceiling effects in Maslow's dimensions (n = 205)

Dimensions	Mean	SD	Skewness	Kurtosis	N (%) floor	N (%) ceiling
Physiological	25.98	8.92	-0.11	-0.91	2 (1.0)	17 (8.3)
Safety	31.23	8.14	-0.73	-0.17	1 (0.5)	56 (27.3)
Belonging	33.33	6.99	-0.94	0.48	1 (0.5)	79 (38.5)
Esteem	29.60	5.66	-0.83	0.32	1 (0.5)	81 (39.5)
Self-actualization	41.83	8.21	-0.79	0.30	1 (0.5)	79 (38.5)

Dimensions of psychological needs (including 8 questions and the range of 8-40), safety needs (including 8 questions and the range of 8-40), needs to belong (including 8 questions and the range of 8-40), need for power and status (including 7 questions range from 7-35) and the need for self-discovery or development (including 10 questions and the range of 10-50)

Table 3: Goodness of fit indices for evaluation of model adequacy in CFA and MIMIC models

Models	χ^2	df	SRMR	CFI	NFI	NNFI	IFI	RFI
1st order CFA	8441.45*	758	0.033	0.95	0.95	0.95	0.95	0.94
2nd order CFA	1.02	2	0.001	1.00	1.00	1.00	1.00	1.00
MIMIC	106.85*	16	0.058	0.98	0.97	0.94	0.98	0.93

χ^2: Chi-square; df: degrees of freedom; GFI: Goodness of Fit Index; RMSR: Root Mean Square Residual; CFI: Comparative Fit Index; NFI: Normed Fit Index; NNFI: Non-Normed Fit Index; IFI: Incremental Fit Index; RFI: Relative Fit Index *:p<0.01

In addition at second level, scales of Maslow's Theory and Model efficiency showed a significant relationship (all p<0.05). Values of model standard parameters ranged within 0.84 for the smallest value (between the physiological and efficiency) to 0.99 for the largest value (between belonging and self-actualization with efficiency).

Table 4: The results of testing the relationships among items and dimensions in the first order CFA and among dimensions and efficiency in the second order CFA (n = 205)

Items	SEB	Standardized parameter	R^2	t-value	p-value
First order CFA					
Physiological1	1.14 (0.064)	0.93	0.87	17.77	<0.001
Physiological2	0.89 (0.060)	0.84	0.71	14.98	<0.001
Physiological3	1.28 (0.079)	0.88	0.78	16.14	<0.001
Physiological4	1.19 (0.075)	0.87	0.76	15.80	<0.001
Physiological5	1.04 (0.066)	0.87	0.75	15.67	<0.001
Physiological6	0.90 (0.048)	0.96	0.93	18.81	<0.001
Physiological7	1.02 (0.053)	0.97	0.94	19.04	<0.001
Physiological8	1.13 (0.059)	0.98	0.95	19.27	<0.001
Safety1	1.06 (0.056)	0.97	0.94	19.05	<0.001
Safety2	1.09 (0.056)	0.98	0.95	19.24	<0.001
Safety3	0.97 (0.051)	0.97	0.94	18.99	<0.001
Safety4	1.06 (0.057)	0.96	0.92	18.66	<0.001
Safety5	1.06 (0.058)	0.95	0.90	18.23	<0.001
Safety6	1.09 (0.059)	0.95	0.91	18.39	<0.001
Safety7	0.85 (0.046)	0.95	0.91	18.47	<0.001
Safety8	0.91 (0.048)	0.97	0.94	19.01	<0.001
Belonging1	0.79 (0.043)	0.95	0.90	18.33	<0.001
Belonging2	0.98 (0.051)	0.97	0.94	18.99	<0.001
Belonging3	1.06 (0.058)	0.95	0.90	18.30	<0.001
Belonging4	0.80 (0.044)	0.95	0.90	18.29	<0.001
Belonging5	0.84 (0.043)	0.98	0.97	19.56	<0.001
Belonging6	0.83 (0.042)	0.99	0.98	19.76	<0.001
Belonging7	0.80 (0.044)	0.95	0.90	18.35	<0.001
Belonging8	0.86 (0.045)	0.97	0.94	19.01	<0.001
Esteem1	0.82 (0.041)	0.99	0.98	19.84	<0.001
Esteem2	0.85 (0.046)	0.95	0.90	18.25	<0.001
Esteem3	0.82 (0.042)	0.98	0.96	19.49	<0.001
Esteem4	0.80 (0.041)	0.98	0.96	19.36	<0.001
Esteem5	0.81(0.0410)	0.99	0.97	19.66	<0.001
Esteem6	0.77 (0.039)	0.98	0.97	19.51	<0.001
Esteem7	0.77 (0.040)	0.97	0.94	18.96	<0.001
Self-actualization1	0.83 (0.044)	0.96	0.93	18.75	<0.001
Self-actualization2	0.81 (0.043)	0.96	0.91	18.54	<0.001
Self-actualization3	0.82 (0.044)	0.96	0.91	18.55	<0.001
Self-actualization4	0.79 (0.044)	0.93	0.87	17.67	<0.001
Self-actualization5	0.81 (0.041)	0.99	0.98	19.79	<0.001
Self-actualization6	0.81 (0.044)	0.95	0.89	18.18	<0.001
Self-actualization7	0.83 (0.042)	0.99	0.98	19.74	<0.001
Self-actualization8	0.78 (0.040)	0.98	0.97	19.59	<0.001
Self-actualization9	0.88 (0.048)	0.95	0.91	18.40	<0.001
Self-actualization10	0.74 (0.040)	0.95	0.89	18.17	<0.001
Second order CFA					
Physiological	8.38 (0.470)	0.94	0.88	17.94	<0.001
Safety	7.89 (0.420)	0.97	0.94	18.98	<0.001
Belonging	7.00 (0.350)	1.00	0.99	20.26	<0.001
Esteem	5.58 (0.280)	0.99	0.97	19.66	<0.001
Self-actualization	8.24 (0.410)	1.00	0.99	20.33	<0.001

And were within this range the values of 0.97 (between the esteem and efficiency) and 0.94 (between the safety and efficiency). They all reflect the high correlation between scales of Maslow's Theory and efficiency. In the line with standardized coefficients, R^2 values also confirmed the above mentioned relationship (Table 4).

Results of MIMIC Model for second level: The results of MIMIC Model showed that (Fig. 1), form background variables, sex, education level, marital status and working experience were significantly related to the efficiency (all $p<0.05$), except for age whose relationship with efficiency was not significant ($p>0.05$). Also, the R^2 for this part of the equation showed that 82% of the efficiency would be determined by background characteristics. After adjusting for these variables, similar results to those of by second order CFA were found for the second part of MIMIC model; all the relationships were significant (All $p<0.05$) and the strongest relationships were observed for belonging and self-actualization with efficiency and the smaller value of the parameter was observed between physiologic and efficiency.

In order to evaluate the efficiency of strategic-based organization of Alborz University of Medical Sciences, the Hierarchical Theory of Human Motivation based on the physiological, safety, belonging, esteem and self-actualization needs (Maslow, 1943) and their relationship with the organization's efficiency was presented results of this study in two parts: first assessing the validity and reliability of the instrument and second testing relationships and determining priorities of Maslow's scales in 205 managers and employees.

Content validity of the instrument was approved using a panel of experts and the construct validity using the exploratory and confirmatory factor analyses (in two levels). Results of exploratory and confirmatory factor analyses suggest the strong relationship of the scales with questions (first-level model) and the relationship between efficiency and scales (second-level model), respectively. Reliability (internal consistency) of the questionnaire in each scale was confirmed by Cronbach's alpha index (all values >0.7).

After confirming the validity and reliability, results of the second level model for the second aim of the study showed significant relationships of all scales in Maslow's Theory with efficiency. All hypotheses of this study demonstrating the relationship between physiological, safety, belonging, esteem and self-actualization and efficiency was approved. The findings of standard parameters from second part of the model in line with MIMIC Model adjusting for demographic variable also revealed that priorities of relationships with efficiency were belonging, self-actualization (first), esteem (second), safety (third) and physiologic (fourth) needs. In addition were observed significant relationships with efficiency for sex, education level, marital status and working experience but not for age.

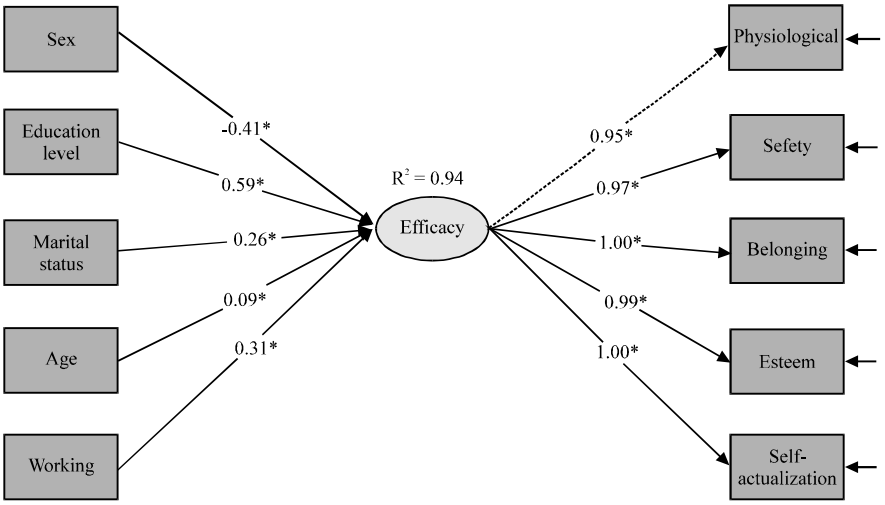

Fig. 1: Standardized parameters of MIMIC Model and the results of testing the relationship (*p<0.001)

The results showed that all the motivational factors significantly affect the efficiency, adapting with Maslow's Theory and this means that all aspects of motivation should be considered to increase the efficiency (Benson and Dundis, 2003; Duma, 2003).

With regard to the focus of motivation on four main factors including individual, job and work environment characteristics and features of the external environment and individual attitudes specially those attitudes that they have brought to the work environment have affect their motivation.

There were four distinct features of self-actualization in the form of tending to have personal responsibility, finding ways to solve problems, accomplish tasks and determining relatively difficult goals, making risk and having strong desire to receive feedback from determined duties were other notable points of this study according with the McGregor Y Theory (Grigor and Grifin, 2002).

Moreover, given that these organizations are changing and because employees typically expose to the problems linking their different characteristics with these changes, results of Maslow's Theory could be used in this case recognizing the needs and making suitable viewpoint and thus to fix the problem (Benson and Dundis, 2003).

By the content factors of the job profile model, considering the social status of employees, making opportunities for promotion, employees sense of being important, well being and success, responsibility and growth and in the other word considering all internal and external factors are the main underlying factors (Cheng and Robertson, 2006) affecting the staffs motivation according to the priorities and consequently can lead to the self-actualization of employees and organization (Fischer and Muller, 2000; Smith, 1994). Based on research results, regarding the social status of employees was the most important job profile factor and afterwards was the opportunity and possibility for promotion factor.

Although, the needs for success and responsibility and growth would affect the employee's efficiency in addition diversifying and making the sense of being important could have a significant impact on employee's motivation (Romero and Kleiner, 2000).

For the belonging factor, appreciating for the work, encouraging and rewarding based on merit and quality of work, respect for individual dignity according to the priorities would have great impact on increasing the employee's service motivation and consequently the efficiency.

Regarding to the Herzberg Theory (Herzberg *et al*., 1959) this study showed that job turning and then job diversifying, providing facilities for promotion and career developing and having work ethic and social discipline is more important in improving the staff's service motivation which is consistent with Alderfer (1969) associated with the levels of motivational factors (Alderfer, 1969). Based on the results of this study and according to the Potter Model, making a friendly and sincere environment and having lovely contact of the manager with staffs as the external motivational factors (Potter *et al*., 1974) would affect the employee's service motivation and consequently the efficiency.

Creating suitable conditions for continuing education and division of work based on specialty and responsibility would affect motivation of employees which is consistent with Maslow's Theory. Sense of being important in staffs involving them in decision

making and manager characteristics can have impact on staff's motivation. These results are in the line with those found by Latham and Yukl (1975) about the importance of director consultation with employees and their involvement in decision making and determining objectives for employees which lead to the raising and motivating them and consequently in their efficiency (Latham and Yukl, 1975).

Resulting first priority for self-actualization, suggests that managers should pay attention to this point as a major factor, since based on the theory by Alderfer (1969), failure to satisfy the needs at this level causes persons attempting to satisfy their needs of lower levels in the hierarchy (Alderfer, 1969; Latham and Yukl, 1975) and because of the essential biological needs based on Maslow's Theory, people would pay too much attention to the biological needs such as their salary. This leads the staffs to consider this as the lack of sincere relationship with managers, supervisors and colleagues and would know this as the lack of earn the respect. Therefore, the biological requirements for staff act as a rational associated with their inability to satisfy their high-level needs and would be too much paid attention (Cheng and Robertson, 2006). Based on the results from this study in accordance with Herzberg's Strong Motivation Theory (Herzberg *et al*., 1959) and Mc Cleland's Theory of needs (McClelland, 1978), it is inferred that the from the beginning of life, human needs is influenced by events person experiencing and they are often called need to the success, power, belonging and independence and theses create the individual desires and inclinations and consequently would have its impact on work (Alshallah, 2004; Willis-Shattuck *et al*., 2008).

In this study the need for esteem, leads to the challenging behavior to achieve higher levels of motivation and this make individuals to enhance their efforts for achieving personal goals and raising their efficiency. Paying no attention to the challenging behavior would cause to suppressing needs and damage the efficiency.

CONCLUSION

It could be concluded that for directing staff motivation what the manager should consider is the fundamental nature of work that a manger must consider in the organization in the other words, being motivated for progress would affect the success of employees more than other factors.

Progressing motivation is not effective in monotonous and repetitive jobs. Results showed that the incentive for group cohesion and social communications would lead to the success of these employees in their jobs.

Results derived from the study confirmed good efficiency and effectiveness in the research population and therefore, the managers must maintain this status.

Developing an equal and fair rewards system, job softy, through identifying and measuring employees' needs in addition creating work incentives inspirations, upgrades and promotions would result in the maximum efficiency for the organization and it should be used to increase efficiency (Benson and Dundis, 2003).

Appointments according to certain criteria, existence of the possibilities for promotion and career advancement, effective operating system of promotion increasing production and boosting employee morale, the exact dependence and interaction between staff and thoughtful interaction with the environment, leads to enhanced efficiency (Latham and Yukl, 1975).

Enormous problems in access to high levels managers and lack of co-working of some managers, being long and time-consuming to answer questionnaires and using examples just from Alborz university was the limitations of this study.

Application of hierarchical theory of human needs about motivation for the organization of Alborz University of medical sciences resulted in dimensions of belonging and self-actualization in first priority, the esteem in the second priority, safety in the third priority and physiological in fourth priority with regard to the efficiency.

It should be noted that regarding and using of all motivational factors is impossible in practice. Since, the values and beliefs of people in the organization would arise by social and cultural interactions, appropriate motivational factors should be used based on individual preferences, needs and demands.

RECOMMENDATIONS

It is recommended that the administrators and managers schedule to eliminate barriers of service motivation. Specifically, to provide the necessary conditions for employees' job advancements, service training courses and training of personnel, clarifying all tasks instructions, rules and regulations for employees, giving sufficient authority to employees to involve them in decision making and developing goals and plans, should have serious plans. This might leads to self-actualization of staff in the organization.

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