Evaluation of Emotional Intelligence and its Dimensions among Residents and Physicians Working at Emergency Ward to Reduce Human Risks

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ABSTRACT

Emotional intelligence has effect on behavioral risks of human resource. In this research, regarding to the capability of emotional intelligence and significance of human resources risk, the relationship between emotional intelligence and human resources risk was Evaluation in emergency ward   of two Loghman Hakim and Imam Hossein Hospitals.108 personnel from two interest hospitals were selected randomly. They participated in present study and then completed the questionnaire. Its validity and reliability has been measured before. The software SPSS 22 was used in order to perform statistical tests on dada such as analysis of variance, Pearson and Spearman correlation and Kolmogorov-Smirnov tests. Equations were used to assess the conceptual model. Results indicated that there are almost all of risks in this research. Ranking of emotional intelligence dimensions represented that social skills such as sympathy, self-motivation, self-regulating, self-awareness have the highest to lowest mean among staffs, respectively. Also, there is a strongly positive correlation between all of variables of emotional intelligence and behavioral risk. Moreover, there are a significant relationship between self-awareness, self-regulating, social skills and health risk and occupational security. Furthermore, there has been a same trend between self-motivation and knowledge and skill risk, also, so is between sympathy and health risk, occupational security, knowledge risk and skill.

Keywords: Emotional intelligence, risk of human resource, emergency ward.

INTRODUCTION

John Mayer from Yale University, introduced the expression of emotional intelligence for the first time emphasizing on ability of one's and others' emotions and excitements restraint, acceptance of other people, control of relationship and social actions (Goleman, 1995). Daniel Goleman (1990) introduced the particular concept of 'emotional intelligence' to scientific community. In 2004, he developed fields of emotional intelligence in scientific community. Goleman revised those fields and explained that components of emotional intelligence could been explained into four sections including self-awareness, self-regulating, social awareness and relationship management (Daramadi, 2008). Despite of high consideration to human resources as a vital source of organizations' success (Pfeffer, 1994), there is considerable lack of academic research in field of human resources risks. Based on reports from institution of Ernst & Young in 2008, human resources risks were introduced as one of the first five risks and one of the three forthcoming risks of business (Ernst & Young, 2008). Furthermore, human capitals risks is the most important threat for business, according to the institution of human resources. Yet, history of organization readiness

against business risks suggests that few organizations are prepared to face risks related to human capitals (Mayer *et al.,* 2011). In working condition, staffs working in emergency ward need countless contacts and interactions with physicians, nurses, patients, patients' family, supervisors and several other staffs in hospital. Good relationship among service providers creates confidence among staffs, patients and patients' family members who are looking for a sufficient health care for their patient (Reader, 2007). Poor relationship causes misunderstood, disappointment, conflicts among doctors and nurses and ultimately leads to increase the rate of medical errors and subsequently, results to the lack of inappropriate patient treatment (Nasiripour, 2011). On the other hand, emergency ward as one of most important yards of hospital is often known as the first base for patients with emergencies, thus, staffs are influenced under high level of stress and tension in this ward , therefore, emotional intelligence is important in this ward .

Also, human capital risk is high in this section. So, examination of emotional intelligence phenomenon and human resource risk in health domain could provide appropriate information for health decision-makers and policy-makers to make health system more effective and sufficient. However, according to research background, lack of research is noticeable in two fields of human resources risk. Firstly, lack of internal research and secondly, lack of frameworks and models to identify the relationship between emotional intelligence and human resource. This study was aimed at human resource risk considering to emotional intelligence variables including self-awareness, self-regulating, self-motivation, sympathy and social skills that was carried out by vast studying of research literature and interview with specialists. In the other words, the main question of this research is "what are the emotional intelligence dimension, effective factors contributing in reduce of human resources risk and effect of emotional intelligence in reduce of human resources risk in emergency ward ?"

Review of Literatures
Emotional Intelligence

Emotional intelligence has been defined as ability of using unknown skills, abilities and competencies to face demands and environmental pressures which totally affects individual skills (Dulewicz, 2003). There are two approaches in emotional intelligence:

1. Ability approach of emotional intelligence: according to ability model of Mayer, Salovey, Crusao (2000) emotional intelligence mentions abilities which are used in information process of one's and others' excitements. In this pattern, there are four branches: current emotional perception, ability to facilitate thinking by excitements (ability to assimilation emotional experiences with understanding), understanding of emotion concepts and emotion management.

2. Combined approach of emotional intelligence: the difference between these two theories is the difference between the concept "adjective" and "information process" in emotional intelligence. In combined approach, there is a connection between the concept of "adjective" and positioning indicators such as sympathy, encourage and optimism. "Adjective" which has a root in personality framework, is measured by self-measuring questionnaires (that measures particular behavior) while ability approach is the concept of "information process" related to abilities such as determination, expression and regulation of emotion. Among all theorists worked on this approach, "Bar-An" and "Goleman" are worth mentioning (Nouri Emamzadeyi, 1384).

Dimension of emotional intelligence model are defined in the following:

Self-awareness: It is defined as understanding of self-emotions and applying them in confident decisions.

Emotions management: It is explained as not displaying reaction regarding to individual states and focus on results and emotion expression (not being passive).

Self-motivation: It has been defined as postponement of pleasure and lack of the sense of

insecurity to achieve goals and also utilization of concentration and maximum performance.

Sympathy: It has been explained as understanding of others' emotions and having close feeling to them, ability to solve conflicts, ability to manage the group, ability of negotiation and transactions and repressing tensions.

Social skills: It is described as ability to help other people to achieve mutual goals, to help others in learning, to improve and encourage social harmony, to conduct affairs based on honesty and ability to communicate social relationship with others, as well.

Goleman interpreted concept of emotional intelligence based on two general dimensions which were known as individual and social skills. Individual skills include self-awareness, self-motivation and excitement management which could create motivation and commitment in a person by one's recognition, reasoning, facilitating and understanding of internal emotions. This step is effective to enter to next step, known as communications. Social skills include sympathy and social skills. These skills are associated to other people's perception, understanding, recognition, understanding of emotions, motivations and internal states, knowing that, we can establish healthy and more effective relationship with others.

Human Resources Risk

Institution of Ernst & Young consider human resources risk as programs and processes risk related to institution staffs, which were been a proper management, organization would be among the market leaders (Ernst & Young, 2008). Secretariat of Canada conference describes human resources risk in this way: "uncertainty caused by changes in the whole range of human resource management issues, which affects the organization`s ability to achieve its strategic and operational objectives" (Yung and Hexter, 2011). Human resources risk has been explained as "any type of humanistic, cultural or governmental factors that would cause to lack of uncertainty in business and have a negative effect on organization`s operations (Mayer et al. 2011). Which makes human

resource risk different of other business risks, is its relationship to human and culture`s behavior, demographic factors, cognitive and social values of different countries as well as its complexity. The general understanding which was widespread about human resources risk in the past and even nowadays, which has been traditionally seen in many organizations, is that the staffs who are violating from firm`s politics; however, human sources risk has an extended dimensions. And it has been incorporated into today business as it would have significant opportunities and threats (Ernst & Young, 2008). So far, the detailed, clear and accurate definition of human resources risk has not been provided. Although there have been some tested models for financial risks such as cost risk, it could not been found any theoretical and practical studies for rate of interest and costs in terms of human resources risk systems in literatures of this field (Paul and Mitchler, 2008). But what can be argued is that human resources risk contains wide ranges of concepts including economic, political, cultural, strategic, environmental, process, psychological and operational risks; so, it is necessary to define a base to classify these risks and then to recognize present risks at each class.

Human resources risk includes behavioral risk, health and occupational security risk and knowledge and skill risk.

Research Hypothesis

According to theoretical principles and to examine relationship between emotional intelligence and human resources risk among personnel working in emergency ward of two Imam Hosseinand Loghman Hakim Hospitals, and regarding to this conceptual research nature, some hypothesis were provided as they are presented below:

Main hypothesis: there is a relationship between emotional intelligence and human resources risk in emergency yard.
Sub hypothesis:

There is a relationship between variables of emotional intelligence dimensions and behavioral risk.
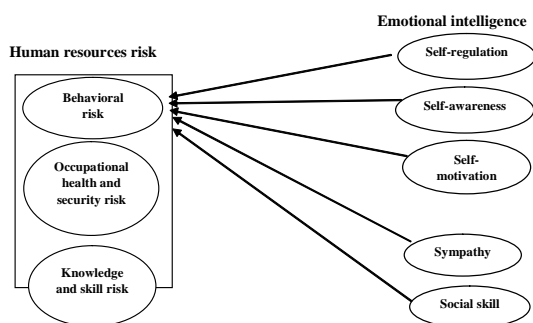
Conceptual Model of Research

There is a relationship between variables of emotional intelligence dimensions and occupational health and security risk.

There is a relationship between emotional intelligence dimensions and knowledge and skill risk.

Research method

This is a practical research in terms of its aim which its data were collected by survey descriptive method. Statistical community in this research are all of staffs working in emergency ward of two Imam Hosseinand Loghman Hakim Hospitals.

The questionnaire had two sections including general questions and specific questions. General questions were associated to demographic features of participants and in second section, 39 questions were provided to measure variables. In this research, the reliability of this questionnaire was 0.85.

Statistical Community and Sample

The statistical community of this research were staffs working in emergency ward of two Imam Hosseinand Loghman Hakim Hospitals. The sample size was 108 using Cochran formula.

Data Analysis

The descriptive statistics were used to explain the states of examined demographic variables in statistical community and in analytical statistics, Kolmogorov – Smirnov test was used to test whether distribution of community is normal or

not, and to examine relationship between studied variables, Pearson correlation coefficient was applied, as well.

Research Findings
Descriptive Statistics

There were 30% men and 70% women among all of staffs in statistical community. In terms of age, the highest frequency was related to age group 31-35 (36%) and the lowest frequency was related to groups over 41 years old (3.2%).

Analytical Statistics

In this part, normality of eight of research's variables was investigated. The results indicated that social skill and sympathy variables do not follow a normal distribution, therefore, the non-parametric tests were used to compare means of emotional intelligence variables and human resources risk (Sarmad and Bazargan, 1387).

The Friedman test was used in order to classify the variables of human resources risk. As there was not a significant difference at level 0.07, null hypothesis was accepted. In other words, there are variety of human resources risks at the same degree in studied hospital.

The Spearman correlation coefficient was used in order to study the correlation between variables of research, to determine relationships between variables of research regardless of casual relations. The results are listed in the Table 2.

According to table 2, there is a strongly positive correlation between all variables of emotional intelligence and behavioral risk. Also, there are a significant relation between variables self-awareness, self-regulating, social skills and occupational health and security; between self-motivation and knowledge and skill risk; and so is between sympathy and occupational health and security risk. There is also a significant relation between sympathy and knowledge and skill risk.

Next, structural equations modelling was used in two forms to validate the conceptual model: 1- to examine the measurement model of human resources risk and emotional intelligence in form of analysis of confirmatory factor, 2- to analyze the

casual effect of emotional intelligence on human resources in form of general model.

Examination of the measurement model of human resources risk and emotional intelligence: this research examined how much required questions to measure the human resources risk as a dependent variable and emotional intelligence as an independent variable have essential accuracy. Afterwards, variables were entered into software SPSS and the initial model were run. Given that fitness indicators and RMSEA value of initial model was 0.13, and since in the fitted model, this value must be lower 0.08, so, the approach of adding extra parameters were used in the modified section of research model. Then, the K-square test was applied to investigate whether the modified model has made a significant change or not, and finally, the human resources risk model after three stages of correction and emotional intelligence model after four stages modification were accepted. Results of k-square test, after modification of considered models, were shown in tables 3 and 4.

After modifying models, examination of fitness of measurement model of human resources

Table1: Values of Friedman test for ranking the human resources risk

Statistical Indicators	Calculated Values
N	105
K-square	271.5
Degree of freedom	2
Sig.	0.072

Table 2 : Correlation between Variables of Research

Variable 1	Variable 2	N	r	P-value
Self-awareness	Behavioral Risk	108	0.93	0.00
Self-regulating	Behavioral Risk	108	0.91	0.00
Self-motivation	Behavioral Risk	108	0.145	0.04
Social skills	Behavioral Risk	108	0.72	0.00
Sympathy	Behavioral Risk	108	0.213	0.017
Self-awareness	Occupational Health and security Risk	108	0.53	0.00
Self-regulating	Occupational Health and security Risk	108	0.52	0.00
Self-motivation	Occupational Health and security Risk	108	0.135	0.113
Social skills	Occupational Health and security Risk	108	0.875	0.00
Sympathy	Occupational Health and security Risk	108	0.63	0.00
Self-awareness	Knowledge and Skill Risk	108	- 0.012	0.46
Self-regulating	Knowledge and Skill Risk	108	- 0.017	0.89
Self-motivation	Knowledge and Skill Risk	108	0.91	0.00
Social skills	Knowledge and Skill Risk	108	0.02	0.837
Sympathy	Knowledge and Skill Risk	108	0.37	0.00

Table 3: Difference of K-Square Values and Modified Values of Initial Model of Human Resources Risk

Fitted Models	X^2	$\ddot{A}x^2$	df	RMSEA Value	P-value
First Model	686.50	0.00	249	0.113	0.00
Second Model	469.05	217	233	0.095	0.00
Third Model	418.4	51.05	228	0.09	0.00
Fourth Model	367.61	51	220	0.09	0.00
Fifth Model	365.06	2.55	218	0.07	meaningless

Table 4: Difference of K-Square Values in Determination of Modification of Initial Model of Emotional Intelligence

Fitted models	X²	Äx²	df	RMSEA Value	P-value
First Model	1249.85	0	454	0.13	0.000
Second Model	909.42	340.43	445	0.1	0.000
Third Model	645.39	264.03	438	0.067	0.000
Fourth Model	604.56	40.83	431	0.062	0.000
Fifth Model	486.36	118.2	423	0.038	0.000
Sixth Model	484.30	2.06	420	0.038	meaningless

Table 5: Fitness Indicators of Confirmatory Factor Analysis Model of Emotional Intelligence and Human Resources Risk

K-square		367.61 df 221	486.36 df 423
Root Mean Squared Residual (RMR)	0-1	0.09	0.13
Normed Fit Index (NFI)	0.9	0.95	0.90
Non-Normed Fit Index (NNFI)	0.9	0.91	0.97
Incremental Fit Index (IFI)	0.9	0.91	0.98
Comparative Fitness Index (CFI)	0.9	0.91	0.98
Root Mean Square Error of Approximation (RMSEA)	0.08	0.08	0.03

Table 6: Fitness Index of General Model

Index	Basic Value	Reported Value
K-square	70.70 df 12	
Root Mean Squared Residual (RMR)	0-1	0.069
Normed Fit Index (NFI)	0.9	0.90
Incremental Fit Index (IFI)	0.9	0.90
Comparative Fitness Index (CFI)	0.9	0.90
Root Mean Square Error of Approximation (RMSEA)	Under 0.08	0.06
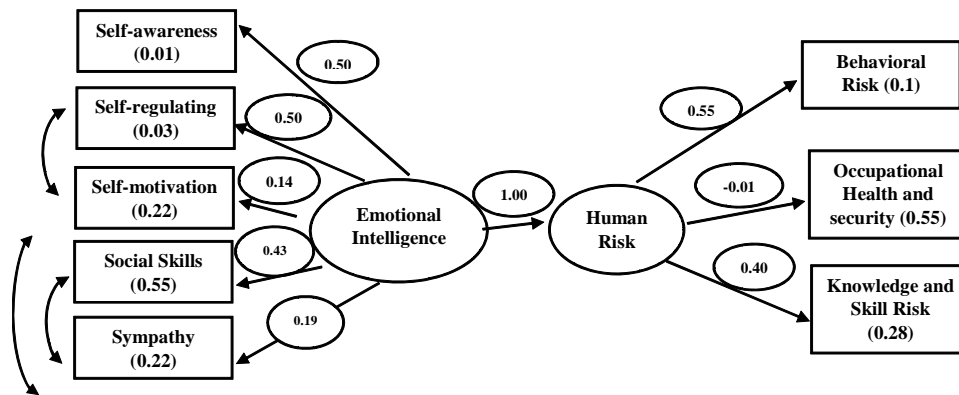
K-square= 70.70, df= 12, P-value=0.325, RMSEA=0.06

Fig. 1: General Model for Examination of Effect of Emotional Intelligence on Human Resources Risk

risk and emotional intelligence were carried out. In this research, the fitness indicators were used to assess the confirmatory factor analysis models. The K-square test is referred as a success indicator. This indicator simply shows that whether the structural model describes the relation between observed variables or not. The more K-square value would be, the better. Results has been shown in tables 5 and 6.

CONCLUSION

This research examined the relation between emotional intelligence and human resources risk in the emergency ward of two Imam Hossein and Loghman Hakim Hospitals. Results represented that the emotional intelligence has a significant influence on Residentsand physicians human resources risk at the level of 99% and 39% of variance of human resources risk are fulfilled by emotional intelligence. Hence, the hypothesis related to significant relation between emotional intelligence and human resources risk in emergency ward is confirmed. Also, the hypothesis related to significant relation between dimensions of emotional intelligence and dimensions of human resources risk which has been shown in table 2, indicated that there is a strongly positive correlation between all variables of emotional intelligence and behavioral risk. Additionally, there are a significant relationship between self-awareness, self-regulating, social skills and health risk and occupational security. Furthermore, there has been a same trend between self-motivation and knowledge and skill risk, also, so is between sympathy and health risk, occupational security, knowledge risk and skill.

Finally, studies show the effect of emotional intelligence on human resources risk. So, according to this, not only have the training of emotional intelligence skills (self-awareness, self-regulating, social skills, self-motivation and sympathy) and improvement of its dimensions among physicians and Residents working in emergency ward a positive impact on increase of effectiveness and higher efficiency of physicians and Residents, but also it will made the hospital environment free of stressful conditions and increase the staffs' job satisfaction and thus we face lower human resources risk. Based on this, it is suggested that are taken the training courses serious in sanitation and health centers by sanitation ministry, and also, are placed on the agenda the creating and improvement of facilities and conditions requiring for running these courses by policy-makers of this field.

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