

Original Article

Assessment of Entrepreneurial Skills and Its Association with Social Intelligence in Students of Kermanshah University of Medical Sciences

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(Received: 5 Jan 2013 Accepted: 19 Oct 2013)

Abstract

Introduction: Social intelligence and entrepreneurship are among features leading to the academic and career achievements. Due to the importance of this issue, the present study was performed to determine the level of entrepreneurial skills in students of Kermanshah University of Medical Sciences and its association with social intelligence.

Methods: In this descriptive cross-sectional study by using systematic random sampling method, we selected 350 students at Kermanshah University of Medical Sciences. Data were collected using entrepreneurial skills standard and social intelligence questionnaires. Reliability and validity of two questionnaires have been already assessed in previous studies. Results analyzed by descriptive statistics and Pearson correlation coefficient test.

Results: Students' entrepreneurial skill was totally 255.69 which is assessed at poor scores range. Research findings also indicated the presence of a statistically significantly positive association between social intelligence and risk-taking ($r=0.14$, $P=0.035$), locus of control ($r=0.72$, $P=0.019$), need to achievement ($r=0.54$, $P=0.012$), mental health ($r=0.53$, $P=0.033$), pragmatism ($r=0.45$, $P=0.04$), ambiguity toleration ($r=0.58$, $P=0.029$), positive thinking ($r=0.72$, $P=0.019$), and challenging ($r=0.29$, $P=0.016$).

Conclusion: Given the students' poor entrepreneurial skills and the correlation between social intelligence and entrepreneurial components, it is recommended to strengthen social intelligence and consequently promote entrepreneurial skills.

Keywords: Entrepreneurial skill, Social intelligence, Students, Medical sciences

Citation: Safari Y, Tahmasby F, Karamafrooz MJ. Assessment of entrepreneurial skills and its association with social intelligence in students of Kermanshah University of Medical Sciences. *Educ Res Med Sci*. 2013; 2(2): 59-63.

Introduction

Social intelligence is a set of cognitive abilities allowing us to understand the world around us and learn how to solve the problems (1). Social intelligence includes the ability of controlling your emotions and others, distinguishing between them, and using this information to direct thinking and action (2).

On the other hand, world economic recession and increased in its effects on the economy of developing countries including our country have made current economic issues in the focus of experts and governors more than ever (1). To solve active manpower unemployment, society needs entrepreneurial managers in various aspects to establish new businesses and conse-

quently create new job opportunities by using their social intelligence (3).

Today's world is full of changes associated with the rapid advancement of knowledge and science. Due to these changes, students are continually facing with new and various problems. Solving these problems depends on other factors than IQ that has been attributed to social intelligence (4). On the other hand, entrepreneurship is a process in which the person with creative ideas while identifying new opportunities tries to establish new business; this activity is associated with risk acceptance and introduces a new product or service to society (5).

Meanwhile, successful entrepreneurs make the best decisions by self-innovation in the worst conditions, and are aware of circumstances, opportunities, and threats and they may begin innovating by recognizing their own emotions and others, and controlling them by maintaining inner peace. In fact, social intelligence helps entrepreneurs dominate their emotional life while correcting past mental habits, and reduce internal challenges in order to develop and direct organizational strategies with insight and wisdom (6). In this regard, there is some evidence that shows personality involves in creation and introduction of entrepreneurship (7). Social intelligence has a high social origin as a set of behavioral tendencies and individual perceptions related to person's ability in identifying process and applying information. As a result, it has been considered more as a kind of personal characteristic than diagnostic awareness ability (8).

Regarding the problem of predicting behavior of individual entrepreneurs in organizational environment, social intelligence has the key advantage toward the ability criterion. Findings of new study demonstrate that emotions of the managers perceived by their staff affect staffs' tendencies to act entrepreneurially (9). Some of these studies suggest that students with high levels of social intelligence tend to control their emotions more. Therefore, while acting more confidently, they have better control over their workplace needs. This enables them to act more entrepreneurially (10).

Empirical studies also indicated that a manager's ability in controlling his emotions and thoughts has a positive impact on existing entrepreneurial behavior in the organization (11). Research also shows entrepreneurship in organizational level and entrepreneurial behavior can be considered as a new competitive advantage (12). Therefore, entrepreneurial behavior in the organization refers to all activities related to discovery, evaluation and exploitation of opportunities done by members of the organization (13). Public institutions play a significant role in the growth of countries especially developing countries. But for some reasons, these organizations in

third world countries lose gradually their efficiency in meeting diverse and growing needs (14), which is not irrelevant to the process of entrepreneurial failure in individual. Every entrepreneur must be able to reach the intended goals through individuals; because manager's ability to achieve the goals has a direct association with their ability in personal motivation around them (15). Today, this issue has been emphasized, since the human problems, information, and relationships between entrepreneurs and staff have been more complicated (16).

The results of the studies conducted by Azizi (2003), Neqabi (2012) demonstrated a significant association between social intelligence and staff's entrepreneurial behavior in the university (17, 18), since staff with high levels of social intelligence were more interested in better arranging and controlling their emotions. Consequently, they were experiencing better behavior at workplace, the factor that enabling them to act entrepreneurially. Results of Gardner's research also showed a direct association between locus of control and social intelligence with entrepreneurship (19). In addition, Sohrabizadeh et al. (2010) found a positive significant association between organizational behavior and locus of control (20). Studies conducted by Samadi et al. (2007) indicated that providing proper environment leads to the growth of entrepreneurial spirit. They also found need to success as one of the entrepreneurial spirit indicators has been above the average and other entrepreneurial indicators will improve by the growth of this indicator (21).

Moreover, Arasteh et al. (2010) assessed need for achievement and need for power as the most important impressive indicators in faculty member's motivation (22). It seems need for achievement and progress has been an impressive factor in applying and implementing social intelligence. Also, results of the studies conducted by Pourdariani (2012) demonstrated that entrepreneurs have healthy mental health, high social intelligence, and desire for achievement motivation (23). Studies conducted by Postigo (2005) considered strengthening of their social intelligence as the most significant feature for entrepreneurs in tolerating and removing ambiguity (24).

Considering the importance of entrepreneurship and advantages of social intelligence skills as a new component and necessary for students, we performed this research to assess entrepreneurial skills and its association with social intelligence in students of Kermanshah University of Medical Sciences.

Methods

This correlative study was performed in a cross-sectional descriptive method. Statistical population includes all students of Kermanshah University of Medical Sciences

in 91-92 academic year including 3470 students (60% female and 40% male). We selected a sample of 350 students by systematic random sampling.

Data were collected using two questionnaires; the first questionnaire was the standard entrepreneurship questionnaire validated by Kordnaeig et al. (2007), they reported Cronbach's Alpha of questionnaire equal to 0.92 (25). This questionnaire includes 83 questions which is scored based on Likert scale (strongly agree, agree, disagree,

strongly disagree). The minimum score for this questionnaire is 95, and the maximum score is 380. Evaluation criteria for entrepreneurial scores and its components are illustrated in table 1. The second instrument was social intelligence questionnaire which has already been validated by Fathi et al. in 2011 (26).

This questionnaire consists of 42 questions including two parts; personal questions and specific questions. The questionnaire was of true- false type. Its reliability was

Table 1: The criteria of entrepreneurial skill assessment based on component separation

Categories	Very poor	poor	Good	Very good
Risk-taking	18-43	44-51	52-57	58-72
Locus of control	17-49	50-55	56-60	61-68
Need for achievement	15-44	45-48	49-53	54-60
Mental Health	13-34	35-38	39-43	44-52
Pragmatism	8-25	26-28	29-30	31-32
Ambiguity toleration	11-18	19-22	23-26	27-44
Positive thinking	7-19	20-21	22-23	24-28
Challenging	6-16	17-19	20-21	22-24
Entrepreneurial skills in total	95-248	249-283	284-303	304-380

calculated 0.82 using the test-retest method. The face validity of questionnaire was confirmed by 10 specialist professors in this field.

Data analyzing method in this study was conducted at two descriptive and inferential statistics levels. In descriptive level, the average and standard deviation and in inferential statistics level, Pearson correlation coefficient was used. For this purpose, SPSS software (version 20) was used.

Results

We found low of entrepreneurial components among students indicating relative weakness in benefiting from each of the entrepreneurial components. Scores of entrepreneurial skill of students of Medical Science University were in low level not only in risk-taking (54.49 ± 1.09), ambiguity toleration (54.49 ± 5.17), and challenging (20.04 ± 5.83), but also in other components. These findings are shown in table 2.

Collected data on social intelligence and entrepreneurial components were analyzed using Pearson correlation coefficient. The results indicated a statistically significantly association between these two variables. These finding are illustrated in table 3.

Table 2: The average and standard deviation of the students' scores in each of the entrepreneurial skill components

entrepreneurial skills components	M \pm SD	Assessment
Risk-taking	54.49 \pm 1.09	Good
Locus of control	37.98 \pm 1.43	Very poor
Need for achievement	36.64 \pm 1.29	Very poor
Mental health	35.44 \pm 1.14	Poor
Pragmatism	23.34 \pm 6.03	Very poor
Ambiguity toleration	25.91 \pm 5.17	Good
Positive thinking	19.85 \pm 4.68	Poor
Challenging	20.04 \pm 5.83	Good
Entrepreneurial skills in total	255.69 \pm 7.55	Poor

Table 3: Correlation coefficient and significance level between social intelligence and entrepreneurial skill components

Entrepreneurial skill components	Social intelligence	
	P_value	correlation coefficient (r)
Risk-taking	0.035	0/14
Locus of control	0.019	0.72
need for achievement	0.012	0.54
Mental Health	0.033	0.53
Pragmatism	0.04	0.45
Ambiguity toleration	0.029	0.58
Positive thinking	0.019	0.72
Challenging	0.016	0.29

Discussion

The average of entrepreneurial components among students indicated their weakness in benefiting each of the entrepreneurial components except in risk-taking, ambiguity toleration, and challenging. The results of the studies conducted by Rahnavard et al. (2008) showed that social intelligence is the ability of controlling one's emotions and feelings and others; therefore, person's entrepreneurship in society in business form will not succeed without receiving cooperation and successful leadership (27). Furthermore, there was a significant positive relationship between social intelligence and entrepreneurial behavior and pragmatism in students. The results of this study are similar to ones conducted by Azizi (2003) and Neqabi et al. (2012) representing a significant relationship between social intelligence and entrepreneurial behavior of the staff in the university (17, 18). The results of this study were similar to those of Gardner (2006), since his study results demonstrated a direct relationship between locus of control and social intelligence (19). In addition, Sohrabizadeh et al. (2010) found the presence of a significant positive meaning between organizational behavior and locus of control (20).

Related results of the relationship level between social intelligence and student's need for achievement indicated that there is a statistically significant meaning between these two variables. The results of this research correspond with studies of Samadi et al. (2007) found that providing proper environment results in the growth of entrepreneurial spirit and need for achievement as one of the indicators of entrepreneurial spirit in the society under study has been more than average and by growth of this indicator, other indicators of entrepreneurial spirit will improve (21). Arasteh et al. (2010) also assessed the most important impressive indicator in faculty members' motivation is need for achievement and need for power, respectively (22). It seems that need for progress and achievement is an impressive factor in applying social intelligence and activating its role as well as existence of a mutual relationship between them. Findings associated with the relationship between social intelligence and mental health as an entrepreneurial component demonstrated a significant positive relationship between these two variables. It corresponds with the study results of Pourdariani (2012) indicating the presence of mental health, social intelligence, and desire for progress motivation in entrepreneurs (23).

Concerning the relationship between social intelligence and student's ambiguity toleration, it is shown the existence of a relationship between the two variables corresponding with Postigo's study (2005). He considers the strengthening of their social intelligence for tolerating

and removing work ambiguities as the most important characteristic of entrepreneurs, and that ambiguity toleration is among creativity and innovation categories (24). In addition, studying the relationship between social intelligence and student's positive thinking showed the presence of a relationship between the two components. There was no research available directly done in this case, but it can generally be said that the results of this study correspond with the obtained results of the study conducted by Azizi, Neqabi and Gardner (17, 18, 19).

Conclusion

The average of the student's scores in each of the entrepreneurial components was at a poor level, except in risk-taking, ambiguity toleration, and challenge. It seems entrepreneurship is among essential skills for students of Medical Science. With regard to the presence of relationship between entrepreneurial skills and social intelligence, on the one hand, and poor entrepreneurial skills on the whole, it seems necessary to teach entrepreneurial skills and take the required measures to promote the student's social intelligence. In line with increasing the entrepreneurial skill and social intelligence, it is suggested to formulate courses in schools and universities that can help increase the people's entrepreneurial skills and social intelligence. It is also recommended to provide written resources along with enforceable and practical instructions about teaching the components related to entrepreneurial skills and social intelligence.

Acknowledgment

This article originated from a M.A thesis and there is no conflict of interest in this work.

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