Emotional Intelligence and Basic Psychological Needs: Highlights from a Teachers' Survey in Iran

Firouzeh Spehrianazar[1], Kaivan Ghasemi[1], Marina Carvalho[2,3], Catia Branquinho[4,5] , Thaysa Molina[6], Margarida Gaspar de Matos[4,5,7, *]

[1]Faculty of Literature and Humanities
Urmia University, Iran

[2]Centre for Research in Psychology
ISMAT, Portugal

[3]Psychiatry and Mental Health Department of CHA, Portugal

[4]/Faculty of Human Kinetics
University of Lisbon, Portugal

[5]/Medical School/ISAMB
University of Lisbon, Portugal

[6]Medical Faculty Foundation, Brazil

[7]ISPA/WJCR, Portugal

[*]*Corresponding author's email: mmatos [AT] fmh.ulisboa.pt*

_____

ABSTRACT---
Purpose: *Psychological needs, as the foundation for a wide range of human behaviors, provide requirements for psychological growth, psychological integrity and well-being. Emotional intelligence is also a general structure that can be the related to success in various aspects of life. The present study examined the relationship between emotional intelligence with the dimensions of basic psychological needs (autonomy, competence and relatedness).* ***Participants:*** *The population of this research consisted of all teachers of Urmia city (n= 6441). To achieve our aim, 365 teachers of Urmia city were selected using stratified random sampling methods.* ***Results:*** *In general, a significant relationship was obtained between the components of emotional intelligence and the components of basic psychological needs. Canonical analysis presented a significant set of relationships between emotional intelligence and basic psychological needs: problem-solving, happiness, independence, stress tolerance, self-actualization, emotional self-awareness, realism, interpersonal relationship, optimism, self-esteem, assertiveness, flexibility and social responsibility showed positive relationships with sense of autonomy, competence and relatedness (p <0.05); however, the relationship between empathy and these needs was negative.* ***Conclusion****: The results showed that components of emotional intelligence are able to predict basic psychological needs.*

Keywords---- Autonomy, Competence, Emotional intelligence, Relatedness, Self-determination
_____

1. INTRODUCTION

Based on empirical support that all human beings have basic psychological needs related to competence, autonomy, and connectedness to others (Deci & Ryan, 2012), and that needs satisfaction promotes motivation and well-being in all cultures, Theory of Self-determination is considered relevant between different cultures, political and economic systems, and values (Deci, Ryan, Gagné, Leone, Usonov & Kornazheva, 2001). In a study conducted in Belgium, China, United States and Peru, the effects of needs satisfaction are found to be equivalent across countries, and are not moderated by individual differences in the desire of needs satisfaction, reinforcing the universality that Basic Psychological Needs Theory is essential for optimal functioning between cultures and individual differences (Chen et al., 2015).

Fundamental for the individual's self-organization and for a healthy development and effective operation, the need for competence, autonomy and relatedness still plays an important role in social contexts, in particular: a) to maintain or increase intrinsic motivation; b) to foster more autonomous and regulatory motivations; and c) to promote or reinforce aspirations or life goals that continually incite the satisfaction of basic needs (Deci & Ryan, 2000).

At school, a context in which motivation plays an important role in students' learning and performance, due to intrinsic motivational orientation, the approaches of Self-Determination Theory and satisfaction of basic psychological needs are also relevant. According to these theories, the motivational style of the teacher seems to be a relevant educational construct, appearing as a significant source of influence for students' performance, motivation and emotions in school contexts (Guimarães & Boruchovicth, 2004). If we consider that, when a person achieves success in a given area, there are beneficial adaptive consequences and rewarding experiences which, in turn, contribute to reinforce a certain behavior, seeking new challenges and satisfactions within that domain (Sheldon, Elliot, Kim & Kasser, 2001), the teacher emerges as an important promoter of students' personal development and academic success.

With such a prominent role in the academic success of students, emotional intelligence arises. A study coordinated by Sepehrian (2012), revealed the importance of some components of emotional intelligence in the forecast of academic performance, problem solving, reality test, responsibility, assertiveness and relationships with other ones. According to the same author (2013), emotional intelligence, beyond the significant effect on academic success, also has a direct effect on the task-oriented coping style.

Relevant to all people, insofar as it allows the individual to manage himself and to promote a consistent relationship with others, emotional intelligence acquires special importance among teachers, responsible for the academic success of the students (Bhattacharjee, 2016). Of great usefulness for students, if well educated in agreement with a continuous and organized method (Sepehrian, 2008), teachers' emotional intelligence can further improve their professional quality of life (Ahmadjad, Hassani, Spehrianazar & Shojaiee, 2012). Supporting students in the development and use of their emotional intelligence may not only increase students' academic success but also, in university settings, be effective in expanding curricula and improvement of school success (Sepehrian, 2012).

Therefore the purpose of the present study was to examine the relationship between emotional intelligence and components of basic psychological needs (autonomy, competence and relatedness) among teachers.

2. METHODS

Procedure
The method of this study is a descriptive (non-experimental) one and its design is correlational.

Participants
The population of this research consisted of all the teachers (n = 6441) who work for the Ministry of Education in Urmia city, Iran. Within this study, 380 teachers were randomly chosen after stratified sampling from primary school, middle school and high school. The final sample of the study included 365 teachers; 15 participants were excluded due to incomplete answers.

The included participants were aged between 25 and 51 years old and with 1-30 years of job experience; 50.1% were females. Most participants held a BA degree (65.2%); most of them were primary school teachers (42.4%).

Instruments

In the present study, Bar-on Emotional intelligent Scale (EQ-i), and LaGuardia, Deci and Ryan (2000) basic psychological needs inventory were used to gather data.

The Bar-on Emotional intelligent Scale (EQ-i) is a self-report tool composed of 117 items which has been translated to 22 languages and normed in 5 countries (Bar-on, 1997, cited by Sepehrianazar, 2012). It was translated to Persian and normed in Isfahan, Iran by Samuey (2002, cited by Sepehrianazar, 2011) and was reduced to 90 items. It has 15 subscales of emotional self-awareness, assertiveness, independence, self-esteem, self-actualization, empathy, social responsibility, interpersonal relationships, reality testing, flexibility, problem solving, stress tolerance, impulse control, optimism and happiness. This test has been designed for individuals within the age range of 16-25 years old. The test can be administered to both individuals and groups. The majority of respondents need 30-40 minutes to respond. The items have been organized on the basis of a 5-degree Likert scale from "strongly disagree =1" to "strongly agree =5". Ahmadjad, Hassani, Sepehrianazar and Shojaee (2011) reported Cronbach alphas between 0.68 to 0.89. In the present study, the reliability coefficient for the total score was 0.90.

The Psychological Needs Scale was developed by Guardia, Deci and Ryan (2000) and assesses the level of support of autonomy (7 items) competence (6 items) and relatedness (8 items) needs. The items have been organized on the basis of a 5-degree Likert scale from "totally disagree =1" to "totally agree =5". Deci and Ryan (2001) reported a Cronbach alpha for the total score equal to 0.83.

3. STATISTICAL ANALYSIS

The descriptive indicators of the studied variables are reported in Table 1. To assess the relationships between emotional intelligence and basic psychological needs dimensions, a canonical correlation method was used.

Table 1 – Descriptive statistics of the sub-scales from Bar-on Emotional intelligent Scale (EQ-i) and sub scales from Psychological needs Scale

Variable	minimum	maximum	Mean	SD	Skewness	kurtosis
Need for autonomy	1.20	5	3.71	0.71	-0.73	**0.48**
Need for competence	1.50	5	3.90	0.65	-0.60	**-0.03**
Need for relatedness	2.13	5	4.08	0.53	-0.56	**0.21**
Problem-Solving	2.40	5	4.89	0.48	-0.08	**-0.01**
Happiness	1.83	4.33	4.23	0.53	-0.16	**-0.24**
Independence	1.50	5	3.53	0.60	-0.11	**0.02**
Stress Tolerance	1.50	5	3.32	0.58	-0.05	**0.34**
Self-Actualization	2	4.23	3.50	0.45	-0.55	**0.33**
Emotional Self-Awareness	2	5	3.62	0.54	-0.07	**0.35**
Realism	1	5	3.43	0.62	-0.23	**0.05**
Interpersonal Relationship	2.17	5	4	0.56	-0.36	**-0.27**
Optimism	2.33	5	3.88	0.53	0.03	**-033**
Self-esteem	2.33	4	3.60	0.41	-0.37	**0.20**
Impulse control	1.83	4	2.96	0.42	-0.28	**-0.28**
Assertiveness	1.83	5	3.22	0.58	0.24	**-0.09**
Flexibility	1.83	5	3.19	0.56	0.30	**0.15**
Social Responsibility	2.17	4.67	3.67	0.44	-1.10	**3.60**
Empathy	1.17	4	3.26	0.40	0.39	**1.01**

According to Table 1 the mean values for all variables except for Empathy (2.26) were around 3, pointing to a proper distribution of the data. The standard deviation indicators showed that the variance of all variables is near the mean values. Skewness and kurtosis for all variables indicated a normal distribution.

Table 2 presents the results of the correlation matrix for emotional intelligence and basic psychological needs. According to these results, the highest correlations between the components of emotional intelligence and basic needs were the correlations between Interpersonal Relationship and Autonomy (0.42), Interpersonal relationship and Competence (0.41) and Self-actualization and Relatedness (0.53).

Table 2 – Correlation matrix of the sub-scales from Bar-on Emotional intelligent Scale (EQ-i) and sub scales from Psychological needs Scale

Variable	Need for autonomy	Need for competence	Need for relatedness
Problem-solving	0.23**	0.29**	**0.33****
Happiness	0.32**	0.29**	**0.32****
Independence	0.15**	0.22**	**0.21****
Stress tolerance	0.27**	0.34**	**0.25****
Self-actualization	0.32**	0.36**	**0.33****
Emotional self-awareness	0.33**	0.38**	**0.33****
Realism	0.35**	0.33**	**0.34****
Interpersonal relationship	0.42**	0.41**	**0.53****
Optimism	0.31**	0.38**	**0.37****
Self-esteem	0.30**	0.34**	**0.28****
Impulse control	0.11**	0.17**	**0.11****
Assertiveness	0.23**	0.21**	**0.20****
Flexibility	0.18**	0.20**	**0.12****
Social responsibility	0.21**	0.27**	**0.28****
Empathy	-0.27**	0.26**	**0.33****

** $p < 0.01$

Due to the theoretical relationships between basic psychological needs and emotional intelligence, and also to the multivariate nature of the variables, a canonical correlation analysis was performed to explore the relationship between basic psychological needs (need for autonomy, competence and relatedness) and emotional intelligence (problem-solving, happiness, independence, stress tolerance, self-actualization, emotional self-awareness, realism, interpersonal relationship, optimism, self-esteem, impulse control, assertiveness, flexibility, social responsibility, and empathy). The groups of predictors were defined according to the dimensions of the basic psychological needs and we tested the assumption that basic psychological needs would predict the dimensions of emotional intelligence. The results of the canonical correlations can be observed in table 3.

Table 3 – Chi-square Tests with Successive Roots Removed

Set	Canonical R	Overlapping variance	Wilks Lambda	Bartlet X^2	df	p
1	0.55	0.30	0.62	166.59	45	**0.001**
2	0.25	0.06	0.90	36.14	28	**0.14**
3	0.19	0.04	0.92	12.82	13	**0.46**

According to Table 3, Bartlet qui-square for the first set of independent and dependent variables (or predictor and criterion) is 166.59 and significant (p≤ 0.001), but it is not significant for the second and third set. The correlation of this first set is 0.55. With both canonical variates entered to the test, the second and the third set of predictor and criterion variables were removed, leaving only the first canonical variate, X^2 (45) = 166.59, p≤ 0.001. Therefore, according to this finding, there was one significant set of relationship between independent and dependent (or predictor and criterion) in the data, with a correlation value equal to 0.55. The correlation of the second and third set was not significant.

In order to investigate which variables were included in the first set of independent and dependent variables and how they relate to each other, the results of the analysis of the first set are reported (see Table 4) only loadings above 0.30 were interpreted.

Table 4 – Canonical correlation analysis of relationship between the Emotional intelligence and Basic Psychological Needs

Canonical variable	Variable	Canonical coefficients		Standardized Canonical coefficients	Canonical loading
	Need for autonomy	0.35		0.25	0.81
Psychological needs	Need for competence	0.71		0.46	0.90
	Need for relatedness	0.79		0.42	0.89
Percent of variance			0.75		
Redundancy			0.23		
	Problem solving	0.16		0.08	0.61
	Happiness	0.21		0.16	0.52
	Independence	-0.34		-0.21	0.41
	Stress tolerance	0.26		0.15	0.61
	Self-actualization	0.51		0.24	0.69
	Emotional self-awareness	0.38		0.21	0.73
	Realism	0.29		0.23	0.57
EQ	Interpersonal relationship	0.32		0.22	0.59
	Optimism	0.43		0.23	0.75
	Self-esteem	0.23		0.10	0.65
	Impulse control	0.44		0.19	0.28
	Assertiveness	-0.02		-0.01	0.43
	Flexibility	-0.47		-0.27	0.35
	Social responsibility	0.13		0.10	0.41
	Empathy	-0.17		-0.12	-0.40
Percent of variance			0.31		
Redundancy			0.09		

According to Table 4, the canonical variable of Basic Psychological Needs includes the Need of Autonomy (0.81), the Need of Competence (0.90) and the Need of Relatedness (0.89). The significant components of the Emotional Intelligence variable include Problem – Solving (0.61), Happiness (0.52), Independence (0.41), Stress Tolerance (0.61), Self-Actualization (0.69), emotional Self-awareness (0.73), Realism (0.57), Inter-personal Relationship (0.59), Optimism (0.75), Self-esteem (0.65), assertiveness (0.43), Flexibility (0.35), Responsibility (0.41) and Empathy (-0.40).

The first canonical correlation is relating Need of Autonomy on the Basic Psychological Needs side to the Emotional Intelligence side (r =.17; p <.05).

The results of the redundancy analysis have shown that Emotional Intelligence explained 31% of the variance and Basic Psychological Needs explained 9% of the variance of Emotional Intelligence.

4. DISCUSSION

The results obtained through canonical correlation analysis showed that all the dimensions of emotional intelligence, except for impulse control, were able to predict basic psychological needs, explaining about 23% of the variance. To answer the first question of the research based on whether there was a relationship between the dimensions of the emotional intelligence and teachers' basic psychological needs, the findings of the present study showed positive

significant correlations of Problem-Solving, Happiness, Independence, Stress Tolerance, Self-dehiscence, Emotional Intelligence, Self-Awareness, Realism, Inter-personal Relationships, Optimism, Self-respect, Self-expression Flexibility, Responsibility and Impulse Control with Need of Autonomy, Competence and Relatedness. Also, these variables correlated negatively and significantly with Empathy. This findings showed that the dimensions of emotional intelligence were related with Need of Autonomy, meaning that persons with high emotional intelligence tend to be more proficiency in their personal and professional life planning; therefore the personal and professional life tend to be more enjoyable for them, which is in line with the results of the study carried out by Eslamian, JafariSani, Goodarzi, and Eslamian (2014) who reported that there is a significant relationship between emotional intelligence components and the employment of effective teaching components.

The present study also showed that the dimensions of emotional intelligence correlated with the dimensions of basic needs related to competence and relatedness, which is in line with the results obtained by Hassan and Al- Jubari (2015), who pointed out that satisfaction and frustration for autonomy, competence and relatedness in undergraduate students (n = 438 in Malaysia) can affect their ability to start a job; taking into account that internal and external factors (as need and responsibility) are necessary for initiate a job, the satisfaction of the basic psychological needs is also important.

The findings of the present study on the relationship between the components of emotional intelligence and the need of relatedness are also in line with Costa and colleagues (2015) study. According to these authors, satisfaction of psychological needs is a strong predictor of ability and competence in interpersonal relationships. Moreover, not being aware of psychological needs is dangerous and harmful for interpersonal relationships. These findings suggest that the need to relatedness has two aspects: need for intimacy and approval.

It may, therefore, be concluded that need of intimacy and need of approval is of utmost importance for warm, friendly, mutual and durable relationships. People who have a high ability in these skills act effectively in anything that is related to mutual gentle action with the others. On the other hand, the control and proper expression of emotions leads to the decrease of behavioral problems and, thus, more acceptance from others. The mentioned properties are seen in people with high emotional intelligence because they have a high ability in understanding people's emotional needs, so they can have a close intimate relationship with people. Finally human's basic need of relationship would be satisfied in these persons. Petrovici and Dobrescu (2014) have studied the role of emotional intelligence in the development of communication and relational skills. They showed that the level of emotional intelligence is essential for building efficient communication, intellectual and emotional development. These results showed that emotional intelligence is very important in workplace, and are skills which are necessary in addition to the professional capability of job.

It should be noted that, in the present study, questionnaires were used to collect data, which can be accounted as a limitation of this study. Also, the methodology used to collect the sample does not allow generalization. Despite of the above mentioned limitations, with due attention to the results of the study, it is suggested to perform similar researches in other geographic regions and different cultures in order to study the reason for the negative correlation of empathy and the need of communication.

5. REFERENCES

- Ahmadjad, M., Hassani, M., Spehrianazar, F., & Shojaiee, K. (2012). Surveying the relationship between emotional intelligence and working life quality with job adjustment of registered and unregistered teacher in elementary level of Sardasht. *Journal of Science & Research*, 9(5), 123- 136. [persian]

- Bhattacharjee, B. (2016). Emotional Intelligence and Teachers. *International Education & Research Journal*, 2(5), 83-84.

- Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E.L., Van der Kaap-Deeder, J., Duriez, B., Lens, W., Matos, L., Mouratidis, A., Ryan, R.M., Sheldon, K.M., Soenens, B., Petegem, S.V., & Verstuyf, J. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motiv Emot*, 39, 216-236. DOI 10.1007/s11031-014-9450-1

- Costa, S., Ntoumanis N., & Bartholomew, K.J. (2015). Predicting the brighter and darker sides of interpersonal relationships: Does psychological need thwarting matter? *Journal of Motivation and Emotion*, 39, 11-24.

- Deci, E.L., & Ryan, R.M. (2000). The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, 11(4), 227-268.

- Deci, E., & Ryan, R. (2012). Motivation, Personality, and Development within Embedded Social Contexts: An Overview of Self-Determination Theory. *In The Oxford Handbook of Human Motivation*, p. 1-26. United States of America: Oxford University Press.

- Deci, E.L., Ryan, R.M., Gagné, M., Leone, D.R., Usonov, J. & Kornazheva, B.P. (2001). Need Satisfaction, Motivation, and Well-Being in the Work Organizations of a Former Eastern Bloc Country: A Cross-Cultural

Study of Self-Determination. *Personality and Social Psychology Bulletin*, 27(8), 930-942. DOI: https://doi.org/10.1177/0146167201278002

- Eslamian, H., Jafari, Sani, H., Goodarzi, Z. & Eslamian, Z. (2014). Study the relationship between emotional intelligence and how to apply the standards of effective teaching by faculty Medical Sciences. *Iranian Journal of Medical Education*, 14 (8),685-694

- Guimarães, S.E.R., & Boruchovitch, E. (2004). O Estilo Motivacional do Professor e a Motivação Intrínseca dos Estudantes: Uma Perspectiva da Teoria da Autodeterminação [The Teacher's Motivational Style and Students' Intrinsic Motivation: A Perspective of Self-Determination Theory]. *Psicologia, Reflexão e Crítica*, 17(2), 143-150.

- Hassan, A., Al-Jubari, I. (2015). Basic Psychological Needs Satisfaction, Need Frustration and Entrepreneurial Intention. *OUM International Journal of Business and Management*; 1(1), 1-11.

- La Guardia, J., Ryan, R. M., Couchman, C., & Deci, E.L. (2000). Within-person variation in security of attachment: A self-determination theory perspective on attachment, need fulfillment and well-being. *Journal of Personality and Social Psychology*, 79, 367-384.

- Petrovici A, Dobrescu T. (2014). The Role of Emotional Intelligence in Building Interpersonal Communication Skills. *Procedia-Social and Behavioral Sciences*, 116, 1405-10.

- Sepehrian, F. (2008). The effect of instruction emotional intelligence skills on coping strategies. *Journal of Modern Psychological Researches*, 2(8), 65-81. [persian]

- Sepehrianazar, F. (2011). Comparing the Efficacy of Cognitive Therapy, Systematic Desensitization and Study Skill's Training on Decreasing Test Anxiety and Improving Academic Achievement of High School Female Students. Journal of Psychology, 6(23), 75-94.

- Sepehrian, F. (2012). Emotional Intelligence as a predictor of academic performance in university. *Journal of Educational Sciences & Psychology*, II(2), 36-44.

- Sepehrianazar, F. (2013). The relationship of emotional intelligence, IQ, coping styles with Academic performance in Pre-College students. *Journal of Clinical Psychology & Personality*, 20(9), 23-32.[persian]

- Sheldon, K.M., Elliot, A.J., Kim, Y., & Kasser, T. (2001). What Is Satisfying About Satisfying Events? Testing 10 Candidate Psychological Needs. *Journal of Personality and Social Psychology*, 80(2), 325-339. Doi: 10.1037//O022-3514.80.2.325