EMOTIONAL INTELLIGENCE TEST OF PATIENTS WITH MAJOR DEPRESSIVE DISORDER

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ABSTRACT

The purpose of this study was to examine the abilities of emotional intelligence among 51 inpatients aged 18-60 years (20 male, 31 female) with a DSM-5 diagnosis of a major depressive disorder. The methods used were The Emotional Intelligence Self-Assessment and The Beck Depression Inventory, 2nd Edition (BDI-II). The result showed that female patients had higher scores than male patients in the five abilities of emotional intelligence; Self-motivation's average score was the lowest, while an average score of Social-awareness was the highest. In performance of abilities, there were differences between males and females, and severity levels of depression. Extroverted abilities showed lower level of emotional intelligence than introvertive abilities.

Keywords: emotional intelligence, depression, awareness, competence, social

TÓM TẮT
Trắc nghiệm trí tuệ cảm xúc ở bệnh nhân trầm cảm chủ yếu

Nghiên cứu nhằm khảo sát trí tuệ cảm xúc ở nhóm 51 bệnh nhân được chẩn đoán là trầm cảm chủ yếu theo DSM-5, trong độ tuổi từ 18 đến 60 (20 nam và 31 nữ). Các phương pháp nghiên cứu đã được sử dụng: Thang tự đánh giá trí tuệ cảm xúc và thang trầm cảm Beck – BDI-II. Kết quả nghiên cứu cho thấy nhóm bệnh nhân nữ có điểm trung bình cao hơn bệnh nhân nam ở cả 5 năng lực trí tuệ cảm xúc, năng lực tự thúc đẩy có điểm trung bình thấp nhất, còn năng lực Nhận thức xã hội có điểm trung bình cao nhất. Năng lực có tính hướng nội thể hiện tốt hơn năng lực có tính hướng ngoại.

Từ khóa: trí tuệ cảm xúc, trầm cảm, nhận thức, năng lực, xã hội

1. Introduction

Depression, the most common of the affective disorders is characterised by persistent sad mood, anxiety, anhedonia (inability to experience pleasure or reward) and irritability. Depression is rated by the World Health Organization as the 4th largest cause of global disease burden in term of its impact on the individual sufferer, the family and society in general in terms of lost productivity.

Emotional Intelligence (EI) is generally defined as a set of abilities concerned with the regulation, management, control and use of emotions in decision-making. Recent studies show that EI opens a new approach for mental health to establish an indicator of healthy mental functioning, support diagnostics and treatment by deve ing appropriate assessment tools, and contribute to improving quality of life and labour pr ductiveness for patients. Recent studies suggest that higher levels of EI lead to greater feelings of emotional well-being, reduced psychological stress, higher positive mood, higher self-esteem, higher optimism and greater life satisfaction.

Because emotional aspect is disturbed pressed patients, many authors are interested in studying EI in depressed patients. These studies have confirmed that the severity of depression is inversely related to the EI level (Downey, et al., 2008; Fernandez-Berrocal, et al., 2012; Tannous, Matar (2010).

In Vietnam there have been some studies of EI (Nguyễn Hồi Loan, 2007; Trần Thị Thu Mai, 2013). But no study has evaluated EI in patients with depression. So we conducted the assessment of EI in depressive patients for the purpose of determining the existence of a reliable predic tor for depression.

2. Research Methods
2.1. Data collection

The sample included 51 inpatients (31 females) aged 18-60 (38 ± 13.50) with DSM-5 di agnosis of a major depressive disorder. Patients

who were depressed and had psychotic symptoms, past manic or psychotic symptoms, mental retardation, or brain damage were excluded from the study. Patients were randomly recruited from inpatient Department of Psychiatry – Military Hospital 103 – Vietnam Military Medical Academy. All participants were informed about the research objectives and voluntarily signed the research agreement made in accordance with the Institutional Review Board within Military pital 103. Respondents must complete Emotional Intelligence Self-Assessment, and The Beck Depression Inventory: 2nd Edition (BDI-II).

2.2. Data analysis

EI scale

The EI scale was developed on the basis of the Goleman EI model. The scale consists of 50 items distributed across five sub-components in two fields of of EI. The first field is Personal Competencies and includes Self Awareness, Self Regulation and Motivation. The second field is Social Competencies and includes Social Awareness (Empathy) and Social Skills. Each item represents a daily circumstance aimed to examine the frequency of the respondent's thoughts and actions. Each item accepts a response on a five-node Likert scale across a 10-point spread: 2 points for rarely, 4 points for occasionally, 6 points for sometimes, 8 points for usually, and 10 points for always. Scores are summed across each sub-component and for the total. Scores correspond directly with emotional intelligence, a higher score predicts a higher EI. (Full scale reliability Cronbach's Alpha = 0.74 > 0,6).

EI rating ranges are assigned Rating Labels, Very high (90-100), High (80-89), Medium (70-79), Low (60-69), Very low (under 60).

Beck's Depression Inventory (BDI)

The BDI, Beck's Depression Inventory, measures severity of depression. BDI is a self-report scale of 21 items including cognitive, emotional, physical, and behavioral symptoms of depression. Each item is scored from 0 to 3 depending on the severity of the symptoms. The total score ranges from 0 to 63 points. The higher the score, the more depressed.

Statistical analysis was performed using SPSS, the Statistical Package for the Social Sciences, version 24.0 for Mac (SPSS Inc., Chicago, IL, USA).

3. Results

In Table 1, there are some socio-demographic characteristics of the group of depressive patients. The number of female patients was 1.55 times as many as male patients.

Table 1. Socio-demographic characteristics

Characteristics		N	(%)
Gender	Male	20	(39.22)
	Female	31	(60.78)
Age (years)	18-20	6	(11.7
	21-40	22	(43.14)
	41-60	23	(45.10)
	38 ± 13.50		
Marital status	Never married	12	(23.53)
	Married	38	(74.51)
	Divorced, Separated, Widowed	01	(1.96)
Education level	Under high school	17	(33.33)
	Highschool	13	(25.49)
	Above high school	21	(41.18)
Employment status	Full-time job	25	(47.06)
	Soldier	12	(23.53)
	Student, home duties, retired, freelance	15	(29.41)
Residential area	Urban	18	(35.29)
	Rural	30	(58.82)
	Mountainous	03	(5.88)

This result corresponds well to the fact that the incidence of MDD in females tends to be 1.5 times to 3 times the incidence in males. The 40 - 60 age group had the largest number of inpatients, 23 (45.10%). The proportion of married patients was the largest at 74.51%. The military patients had biggest proportion among all types of occupation, 23.53%. The hospital mainly serves soldiers. The proportion of patients from rural areas was 58.82%, and that of patients from mountainous areas was 5.88%.

Table 2. Depression levels by gender

Level of Depression	Female (N=31)	Male (N=20)	Sample (N=51)
Mild	6 (19.35%)	6 (30,0%)	12 (23.53%)
Moderate	11(35.49%)	9 (45.0%)	20 (39.22%)
Severe	14 (45.16%)	5 (25.0%)	19 (37.25%)

Most patients were hospitalized at the level of moderate and severe depression. Table 1 and Table 2 show that the number of women in the sample is not high but that the rate of severe depression is higher than that of the male group.

Table 3. Depression levels by Beck scores

Level of Depression	Female (N=31)	Male (N=20)	Sample (N=51)
Mild	16.0 ± 2.0	15.83 ± 2.48	15.92 ± 2.15
Moderate	25.27 ± 2.57	24.67 ± 3.35	25.0 ± 2.88
Severe	38.57 ± 6.73	38.80 ± 7.09	38.63 ± 6.63

The results of BDI in Table 3 reveals that within each if the depression level groups, mild, moderate, and severe, the mean BDI scores of female patients tends to be lower than for male patients.

Table 4. Scores and rating of the five competencies of EI

Competencies Levels	Self Awareness	Self Regulation	Motivation	Social Awareness	Social Skills
	N (%)				
Very high	2 (3.92%)	1 (1.96%)	0 (0%)	1 (1.96%)	0 (0%)
High	4 (7.84%)	2 (3.92%)	4 (7.84%)	3 (5.88%)	3 (5.88%)
Medium	10 (19.61%)	7 (13.73%)	8 (15.69%)	15 (29.41%)	8 (15.69%)
Low	9 (17.65%)	14 (27.45%)	9 (17.65%)	10 (19.61%)	14 (27.45%)
Very low	26 (50.98%)	27 (52.94%)	30 (58.82%)	22 (43.14%)	26 (50.98%)
M ± SD	59.31 ± 15.59	58.33 ± 14.49	55.84 ± 17.0	60.80 ± 15.08	56.63 ± 15.40
Max;Min	92;26	94;26	88;22	92;32	84;24

Max: Maximum, Min: Minimum, M: Mean, SD: Standard deviation

Mean scores of the five competencies were at low or very low level. Social Awareness perform the best in the five competencies of EI (Table 4).

To find out whether there are differences in EI between men and women, we compared the EI results between the two groups of male and female patients. The comparison is shown in Table 5.

Table 5. The five competencies of EI by gender

Gender Competencies	Female (N=31)	Male (N=20)
Self Awareness	61.55 ± 13.27	55.85 ± 18.45
Self Regulation	58.55 ± 11.94	58.0 ± 18.08
Motivation	59.48 ± 14.89	50.20 ± 18.84
Social Awareness	63.06 ± 13.12	57.30 ± 17.48
Social Skill	56.63 ± 15.40	53.50 ± 17.18

Interestingly, Table 5 shows male patients' EI sub-scores in all five of the competencies to be somewhat lower than those of the female pa-tients, although the difference is s significant.

Table 6. The five competencies of EI by age groups

Age group (years) Competencies	18 – 20	21 – 40	41 - 60
Self Awareness	61.33 ± 19.87	62.41 ± 16.63	55.83 ± 13.2
Self Regulation	55.67 ± 23.44	61.05 ± 15.03	56.43 ± 11
Motivation	53.00 ± 21.79	59.73 ± 18.46	52.87 ± 14.04
Social Awareness	54.33 ± 14.56	65.27 ± 16.61	58.22 ± 12.91
Social Skill	55.67 ± 21.63	59.27 ± 14.07	54.35 ± 15.20

EI scores of the 21- 40 year old age group were the highest, and EI scores of 41- 60 year old age group were the lowest (Table 6). The highest scoring competencies by age group are Self Awareness for age group 18 - 20 (61.33), and Social Awareness for age groups 21- 40 (65.27), and 41- 60 (58.22).

Table 7. The five competencies of EI by disease duration

Competencies	Under 1 year	1 – 3 years	Above 3 years
Self Awareness	57.29 17.84	61.25 ± 14.16	60.14 ± 14.20
Self Regulation	59.86 ± 15.32	58.00 ± 15.07	56.43 ± 16.62
Motivation	17.28	56.75 ± 17.95	54.29 ± 16.62
Social Awareness	61.71 ± 15.51	60.69 ± 15.54	59.5 14.93
Social Skill	57.62 15.34	56.75 15.07	55.00 ± 16.84

In Table 7 we see that longer disease duration correlates to lower EI scores.

In Table 8 we show the distribution of EI competence scores across levels of depression, correlating BDI and EI.

Table 8. The five competencies of EIby depression levels

Depression levels	Mild (N=12)	Moderate (N=20)	Severe (N=19)
Competencies			
Self Awareness	67.92 ± 17.76	54.80 12.69	58.63 ± 15.48
Self Regulation	69.17 15.00	52.20 13.63	57.95 ± 11.37
Motivation	60.67 ± 18.00	50.00 16.04	58.9 16.35
Social Awareness	65.67 ± 16.51	54.50 ± 13.82	64.37 ± 13.78
Social Skill	62.33 ± 15.95	50.90 ± 15.18	59.05 ± 13.99

As expected, Mild depression levels correlated to higher EI sub-scores. But not quite as expected, the EI sub-scores of patients with Moderate depression were the lowest.

4. Discussion

In their article, Downey, et al. (2008) said that significant associations were observed between severity of depression and the EI scores. A similar picture was also observed in our study. However, in our study, the group reporting moderate depression had the lowest scores in EI. This should be clarified in the future.

Depressed females reported stronger depressive symptoms than did males. This results corresponds well to reports by Albert, (2015), at the same time, the female:male ratio of global disability from major depression remained u changed at 1.7:1. The Beck scales' standard deviation of female patients is higher than men at each level of depression. This means the severity of depression in females were less dispersive than in males.

The relative proportion of female patients reporting moderate and severe depression were significantly larger than among male patients. Severe depression was reported by 27.45% of the females, but only 9.8% of the males.

Dispersion clearly of EI score among patients were represented by high standard deviation. The very wide range of EI scores indicated that EI rates were dissimilar and diffuse in patients.

Based on classification of levels of depression, depressed patients with very low EI score were the largest proportions accounted for 58.82% (Motivation) and 43.14% (Social Awareness). The numbers of patients having high or very high EI scores were very small (u der 10%). This result is corresponds well with reports by Batool and Khalid (2009) that depressive patients are prone to lower emotional intel ligence.

In the five EI abilities, Motivation's mean score was the lowest (55.84 ± 17.0), and Social Awareness's mean score was the highest (60.80 ± 15.08). Self Awareness performed better than Self Regulation. Therein Self Awareness is comprised of emotional awareness, self confident, self assessment about strengths and deficiencies; Self Regulation is comprised of self control, trustworthiness, conscientiousness, adaptability, innovation. This result is corresponding to Tran Thi Thu Mai (2013).

Self Awareness (59.31 ± 15.59) and Social Awareness (60.80 ± 15.08) got higher score than Self Regulation (58.33 ± 14.49) and Social Skills (56.63 ± 15.40). This result is in agreement with Tran Thi Thu Mai (2013) and Nguyen Hoi Loan (2007), strategic area score is lower than experiential area score. Therein, strategic EI area is similar with Social Skills and Self Regulation which is extroversive, directed toward others, self control, self regulation in relationships with others. Experiential EI area is similar with Self Awareness and Social Awareness which includes introversion, identifying what emotions is going on in oneself, understanding other's feelings, the

cause of those emotions, to developing oneself and others. These results can be explained by the fact that depressed patients tend to restrict their communication with colleagues in the workplace; their major relationships are within the family; focusing on emotion they become more sensitive. Therefore, they recognize and understand easily the different levels of their emotions, relatives, as well as the cause of those emotions. In addition, patients with depression create a distance to avoid strange factors, complex situations in social life that may make them confused and which they may find difficult to resolve effectively. Patients also have difficulty in self control of emotions and motivation to extract themselves from negative thoughts.

Males showed lower EI as compared to female in all of the five components. Dispersion of EI score of females were lower than that of male. This shows that female EI scores are more concentrated and even. For male patients, Self Regulation competence was the best (58.0 ± 18.08) indicating that they likely adapt easily to change and can more easily establish their emotions. For female patients, Social Awareness competence was the best (63.06 ± 13.12) and their worst competence was Social Skills (56.63 ± 15.40) indicating that they are sensitive in understanding other people's emotions, and recognize the strength of their relationships. This result is consistent with Tannous and Matar J. (2010), who said that depressed women score higher than depressed men on EI measures. The process of socialization may also cause gender differences across EI measures, as females are usually encouraged to express or share their positive emotions, while males are not supposed to share their feelings and emotions. But some authors, for example, Fernandez-Berrocal, et al. (2012) argue that there is no gender difference in EI; it's rather a mediating effect of age.

5. Conclusion

There clear differences in the emotional abilities of males and females. Female patients showed stronger competencies than male patients. Depression levels were correlated with emotional intelligence scores. There were differences among the five EI abilities. The introversive competencies were expressed more strongly than extroversive competencies.

Conflicts of Interest:

The authors declare no conflict of interest

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