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The relationship between emotional intelligence and depression in a clinical sample

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ABSTRACT – *Background and Objectives:* Although depression is a commonly occurring mental illness, research concerning strategies for early detection and prophylaxis has not until now focused on the possible utility of measures of Emotional Intelligence (EI) as a potential predictive factor. The current study aimed to investigate the relationship between EI and a clinical diagnosis of depression in a cohort of adults.

Methods: Sixty-two patients (59.70% female) with a DSM-IV-TR diagnosis of a major affective disorder and 39 aged matched controls (56.40% female) completed self-report instruments assessing EI and depression in a cross-sectional study.

Results: Significant associations were observed between severity of depression and the EI dimensions of Emotional Management (r = -0.56) and Emotional Control (r = -0.62).

The results show a reduced social involvement, an increased prior institutionalization and an increased incidence of "Schizophrenic Psychosis" and "Abnormal Personalities" in the sub-group of repeated admissions.

Conclusions: Measures of EI may have predictive value in terms of early identification of those at risk for developing depression. The current study points to the potential value of conducting further studies of a prospective nature.

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Depression; the most common of the affective disorders is characterised by persistent sad mood, anxiety, anhedonia (an inability to experience pleasure or reward) and irritability[1,2]. Depression is rated by the World Health Organisation) as the 4th largest cause of global disease burden in terms of its impact on the individual sufferer, the family and society in general in terms of lost productivity. The existence of reliable predictors of who is most likely to suffer from depression would represent a valuable step towards the development of prophylactic strategies for protecting individuals prior to disease onset. The emerging construct of Emotional Intelligence (EI) may constitute such a predictor[3].

Emotional Intelligence is broadly defined as a set of abilities concerned with the regulation, management, control and use of emotions in decision-making[4], particularly in relation to the promotion of healthy and adaptive mental functioning. As such, EI intuitively offers a window into mental health, since the ability of individuals to understand their own emotional states or emotional problems is considered an important indicator of healthy mental functioning[5]. Recent studies suggest that higher levels of EI lead to greater feelings of emotional well-being[6-9], reduced psychological stress[10], higher positive mood[11], higher self-esteem[12], lower depression[13,14], higher optimism[12] and greater life satisfaction[3,14-16].

Several models and measures of EI have been proposed in recent years, with the measures generally falling within one of two conceptions of the construct - ability or trait. Both the ability and trait measures of EI have been shown to have predictive validity in recent research[17]. Using factor analysis, Palmer & Stough[18] developed a self-report measure of EI – the Swinburne University Emotional Intelligence Test (SUEIT) - consisting of five subscales: Emotional Recognition and Expression (ERE), Understanding Emotions External (UEE), Emotions Direct Cognition (EDC), Emotional Management (EM), and Emotional Control (EC).

Whilst there has been the suggestion that the inability to control negative emotions can leave individuals vulnerable to stress[19] and depression[20], this has not yet been definitively established using objective measures of emotional management skills. Ciarrochi *et al.*[3] used such an objective measure of emotional management skill, and observed it to be associated with a tendency to maintain an experimentally induced positive mood. People who scored higher on measures of "managing the emotions of others" also reported lower levels of depression[3]. These findings suggest a potential relationship between specific components of EI and clinical depression, in particular EM and EC. To date, these relationships have only been investigated in the context of sub-clinical populations[3]. The current study aimed to investigate the relationship between EI and depression in a cohort of adults with DSM-IV-TR diagnosis of clinical depression using a cross-sectional sampling strategy.

Method

Participants

The clinical sample comprised 62 participants (59.70% female) aged between 26 and 83 years of age (M = 53.50, SD = 13.26). All participants met current or past criteria for DSM-IV-TR Major Depressive Episode but not for any other Axis I disorder. Twenty-eight participants (45.2%) were currently experiencing a Major Depressive Episode (MDE) and 34 (54.8%) had been diagnosed

with a MDE in the past (these patients could still possess depressive symptomatology, though not sufficient to meet the criteria for current depression). The control group comprised 39 (56.40% female) aged matched participants (M = 49.95, SD = 12.70; range 26 – 72. Control group participants were selected on the basis that they had never met current or past criteria for DSM-IV-TR Major Depressive Episode.

Materials

Swinburne University Emotional Intelligence Test (SUEIT)

The SUEIT is a self-report measure of EI comprising 64 items. Each item is presented as a statement (i.e. 'I can tell how others are feeling'). Respondents rate the degree to which each statement represents the way they typically think, feel or act. Items are scored on a five-point Likert-type scale where 1 equals 'never' and 5 equals 'always'. Scores are derived for five dimensions of EI: Emotional Recognition and Expression (ERE); Understanding Emotions External (UE); Emotions Direct Cognition (EDC); Emotional Management (EM); and Emotional Control (EC). In terms of the psychometric properties of the SUEIT, Palmer and Stough (2001) report a full-scale internal reliability of 0.91 and sub-scale internal reliabilities between 0.78 and 0.86. Significant test – retest reliabilities range between 0.82 and 0.95 for a one-month retest period[18].

The Beck Depression Inventory – 2nd Edition (BDI-II)

The BDI-II[21] was used to measure the severity of depressive symptoms in the study subjects. The BDI-II is a 21-item self-report instrument for measuring the severity of depression in adults and adolescents aged 13 years or older. The BDI-II has demonstrated excellent test-retest correlations, internal consistency, and convergent and discriminant validity[21], and is used in this study to provide an empirical measure of the levels of depression in both a clinically depressed and control populations.

Procedure

Inpatients and outpatients were recruited from The Melbourne Clinic, a private psychiatric facility in Melbourne, Australia, that receives referrals from various public and private medical institutions throughout Victoria. Each participant's treating psychiatrist facilitated data collection after conducting a clinical interview resulting in a diagnosis of depression according to DSM-IV-TR classification. Interested individuals were given information about the study by the researcher, and participants gave their consent to participate by signing an informed consent form. Participants were given instructions on how to complete each questionnaire, and any queries or concerns the participants had were addressed. Participants either completed the questionnaire immediately or took it home and returned it by mail once completed. Psychiatrists also provided information from the patient's file pertaining to their current diagnosis. Data was collated and de-identified, and analyses were performed using the SPSS statistical package.

Results

The means (M), standard deviations (SD) and internal reliabilities (a) of the SUEIT and BDI-II for both the clinical and control groups are presented in Table I. The clinical groups' mean BDI-II scores was significantly higher than the control groups as expected

[t (99) = 6.57, p < 0.001] and significant correlations were observed between the ERE, EM and EC dimensions of the SUEIT with total BDI-II scores. The clinically depressed group also scored lower than the control group on three dimensions of EI: ERE (F [1, 99] = 14.81, p < 0.001); EM (F [1, 99] = 26.48, p < 0.001); and EC (F [1, 99] = 12.92, p = 0.01).

Table I
Clinical and Non-Clinical Group Means, Standard Deviations, Internal Reliability for the SUEIT and BDI-II

		M	SD	α	R – BDI-II
BDI-II – Total score					1.00
	Clinical	23.02	15.21	0.95	
	Non-Clinical	6.31	5.70	0.89	
ERE					-0.37**
	Clinical	33.50	6.370	0.78	
	Non-Clinical	38.18	5.19	0.78	
UE					-0.18
	Clinical	67.68	9.35	0.85	
	Non-Clinical	69.19	6.89	0.85	
EDC					0.01
	Clinical	33.79	6.02	0.63	
	Non-Clinical	34.30	5.53	0.69	
EM					-0.56**
	Clinical	31.57	6.90	0.80	
	Non-Clinical	38.00	4.61	0.61	
EC					-0.62**
	Clinical	24.50	5.89	0.81	
	Non-Clinical	28.29	3.67	0.69	

Note: Significant group mean differences are indicated with bold.
M: Means; SD: Standard Deviation; a: Internal Reliabilities; BDI-II: The Beck Depression Inventory – 2nd Edition; ERE: Emotional Recognition and Expression; UE: Understanding Emotions External; EDC: Emotions Direct Cognition; EM: Emotional Management; EC: Emotional Control.

To determine the relative contribution of EI dimensions to the severity of depression in the overall sample, stepwise linear regression analysis was undertaken using the significantly related SUEIT dimensions as the independent variables, and BDI-II score as the dependent variable. When ERE, EM and EC were used as predictors for BDI-II score, the first regression model including EC was significant and accounted for 39% of the variance in BDI-II scores (R^2 = 0.39, F [1, 99] = 61.88, p < 0.001). The second model involved the addition of the EM dimension, which accounted for a further 4% of the variance (R^2 = 0.43, F [2, 98] = 36.83, p < 0.001), as such, the EC and EM scores accounted for 43% of the variance in BDI-II scores.

Discussion

The present study examined the association between a self-report measure of EI and a clinical diagnostic measure of depressive illness according to DSM-IV-TR criteria in a cohort of adults. Three of the dimensions

of EI measured by the SUEIT, ERE, EM and EC, were all significantly negatively correlated with BDI-II scores, however, there was no significant correlation between the other two dimensions (UE and EDC) and depression scores. In light of the existing literature, this is an interesting pattern of results. Ciarrochi and colleagues also observed a relationship between Emotional management skills and depression, and there is also some evidence concerning the existence of deficits in emotional recognition in depressed patients[22]. One possible explanation for these results may lie in the self-report nature of the instruments used in this research, or the particular patient population investigated within this study. Thus the utility of self-report EI measures may be supplemented by employing performance measures of EI (e.g. MSCEIT) in future studies. The current results indicated that in a clinical sample, the ability to manage and control emotions was related to severity of depression, and further reflected in significant deficits in the EI abilities to recognise and express emotions, manage positive and negative emotions adaptively and control strong emotions. This result further supports the notion that the lack of emotional control and the inability to regulate emotions are important factors associated with depression[6].

Evidence suggests that measures of EI in non-clinical populations are temporally stable[18], though EI practitioners attest that EI levels can be improved via focused EI development programs. Whilst we are reticent to ascribe causality on the basis of correlational data as presented herein; we believe that data presented here may offer tentative evidence for the possibility of using EI scores as a predictor of the incidence of depressive illness. To confirm this potential utility of EI measures, it would be necessary to conduct a fully prospective research project assessing the viability of using EI measures in sub-clinical/normal population(s) as predictors of clinical depression, and to also account for possible reductions in EI scores as a consequence of contracting a depressive illness.

Were this to prove successful it would have profound implications for early screening and identification of at-risk populations. It has been suggested that the emotional abilities of a client should be an integral part of their diagnosis and treatment[23]. Research into the predictive validity of EI in depression could also lead to the development of EI focused interventions to prevent clinical depression, since there is some evidence to suggest that emotional management skills are amenable to development[17].

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