Relation between emotional intelligence and perceived stress among female students

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Abstract

The trait emotional intelligence (TEI) refers to individual differences in the perception, processing, regulation and utilization of emotional information. Several investigations have showed relation between TEI and health factors. The purpose of this study was to examine whether emotional intelligence is associated with perceived stress. Participants were 150 volunteer female students. All participants were asked to complete Bar-on Emotional Intelligence Inventory (Bar-on, 1997) and Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983). The results indicated a significant association between emotional intelligence and perceived stress (p ≤ 0.01). Regression analysis also revealed multiple correlations between TEI and perceived stress. Regression coefficient showed that emotional intelligence significantly predicted perceived stress.

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Selection and/or peer-review under responsibility of the 2nd World Conference on Psychology, Counselling and Guidance.

Keywords: Emotional intelligence; Perceived stress; Psychological health

1. Introduction

According to the World Health Organization (WHO), health is defined as the bio- and psycho-social well-being of the individual (Landa, Lopez-Zafre, Martos, & de Carmen Aguilar-Luzon, 2008). A growing body of empirical evidence suggests that emotional intelligence (EI) correlates robustly with a variety of outcomes that signal social-emotional success, including more frequent positive affect, higher self esteem, greater life satisfaction, social engagement, and well-being (Zeidner, Olnick-Shmesh, 2010).

The trait emotional intelligence (TEI) refers to individual differences in the perception, processing, regulation and utilization of emotional information. Bar-On (1997) defined emotional intelligence as “an array of non-cognitive capabilities, competencies and skills that influence one’s ability to succeed in coping with environmental demands and pressures”. The emphasis on “non-cognitive” factors was a departure from more traditional conceptualizations of intelligence that reflect the importance of cognitive factors (Newsome, Day, Catano, 2000). Bar-on model is a mixed model that define EI as a mixture of emotion-related competencies, personality traits and dispositions. Self-report measures pertaining to mixed models (e.g. the Bar-On Emotional Quotient Inventory, Bar-On EQ-i; Bar-On,1997 ) have been described as embedded within the personality framework, and to assess cross-situational consistencies in behaviour (Palmer, Manocha, Gignac, & Stough, 2002). Several investigations have
showed relation between TEI and health factors. (Mikolajczak, Roy, Luminet, Fillee, & de Timary, 2005) TEI is conceptualized as a personality trait located at the lower levels of personality hierarchies. A number of studies have shown that trait EI is a protective factor with respect to mental health and psychological well-being, showing for instance a negative association with depression (Greven, Chamorro-Premuzic, Arteche, & Furnham, 2008, Tannous, & Matar, 2010), subjective fatigue (Brown, Schutte, 2006), chronic diseases, chronic pain, substance abuse, anxiety and somatic symptom reporting (Saklofske, Austin, Galloway, & Davidson, 2007).

Slaski and Cartwright (2002) found that people who scored higher in emotional intelligence scale suffered less subjective stress, experienced better health and well-being, and demonstrated better management performance. The link between EI and stress is also well established in the academic literature (Ciarrochi, Dean, & Anderson, 2002; Gohm, Corser, & Dalsky, 2005). High trait EI individuals exhibit good stress management skills and an ability to appraise, express and manage their emotions (Greven, Chamorro-Premuzic, Arteche, & Furnham, 2008). Perceived stress can be conceptualized as the degree to which a situation in one’s life is appraised as stressful (Cohen, Kamarck, & Mermelstein, 1983) and therefore as an outcome of primary and secondary appraisals. In other words, perceived stress is a state outcome reflecting the global evaluation of the significance and difficulty in dealing with personal and environmental challenges. Research evidence indicates that perceived stress is associated to both anxiety and depression (Spada, Nikcevic, Moneta, & Wells, 2008). The purpose of this study is examining relationship between EI and its subscales based on Bar-on model and perceived stress.

2. Method

2.1. Participant
Participants were 150 volunteer female students from a university in Esfahan. The mean age of group was 22.67 years with standard deviation of 1.54. All participants were asked to complete Bar-on Emotional Intelligence Inventory (Bar-on, 1997) and Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983). The present research is a descriptive study of correlation type, and to analyze its data statistical indices and methods including mean, standard deviation, correlation coefficient and regression analysis were used.

2.2. Measures

The Bar-On Emotional Quotient Inventory has 90 test that is based on Bar-On’s (1997a) model of EI that comprises 15 sub-scales pertaining to the 15 components of the model, which render 15 sub-scale scores, five EQ composite scale scores and an overall or total EQ score. Psychometric analyses of the EQ-i reported in the technical manual (Bar-On, 1997a), indicate that it has good internal reliability and test–retest reliability. Across seven population samples, the 15 sub-scales are reported to have average-to-high internal consistency coefficients with Cronbach alpha’s ranging from $\alpha=0.69$ for RE to $\alpha=0.86$ for SR. with Iranian samples Cronbach Alpha has been 0.73 to 0.93.

The perceived stress scale (PSS; Cohen, Kamarck, & Mermelstein, 1983) This scale consists of 14 items that are designed to tap the degree to which respondents find their lives unpredictable, uncontrollable, and overloading over the course of previous month. The PSS has been used in a range of settings and has been shown to relate to a number of psychological responses, including anxiety and depressive symptoms (Spada, Nikcevic, Moneta, & Wells, 2008). The internal consistency reported for the PSS from 0.84 to 0.86.

3. Results

The aim of this study was examining relationship between emotional intelligence and perceived stress. Pearson’s Correlation Coefficient were conducted. Table 1 shows correlation TEI and its subscales with perceived stress. As
can be seen from this table, most of subscales and total score of TEI was significantly negatively correlated with perceived stress.

**Table 1.** Correlation of emotional intelligence and sub scales of perceived stress

|        | PS   | HA   | IN   | ST   | SA   | ES   | RT   | IR   | OP   | SR   | IC   | FL   | RE   | EM   | AS   | EI   |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| **Perceived Stress** | -0.414 | -0.378 | -0.436 | -0.558 | -0.359 | -0.463 | -0.201 | -0.278 | -0.336 | -0.376 | -0.491 | -0.201 | -0.182 | -0.445 | -0.634 |
| **Sig.** | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.017 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |

Table 2 showed variance analysis and regression among the score of perceived stress with the subscales of emotional intelligence. According to the results emotional intelligence explained 58% of the variance in perceived stress ($p \leq 0.01$). In the stepwise multiple regression, Emotional intelligence and then Interpersonal relationship, Reality testing, Stress Tolerance, Flexibility entered. Significant regression coefficients showed that showed emotional intelligence and subscales predict perceived stress meaningfully.

**Table 2.** Stepwise Multiple Regression of Significant Predictors of Perceived stress

|        | Multiple R | R²     | SD  | Sig.  |
|--------|------------|--------|-----|-------|
|        | 0.766      | 0.587  | 5.74| 0.01  |

**4. Discussion**

The result of this study showed a significant negative relationship between emotional intelligence and perceived stress. With respect to the influence of EI on health, Ciarrochi, Deane, & Anderson (2002) indicate that EI has a mediating role in the relationship between psychological health and stress. It means people with high EI are able to deal with environmental demands better than people who score low in this variable. A number of links between coping and health have been established. Emotion-focussed coping has been found to be related to distress and worry (Saklofske, Austin, Galloway, & Davidson, 2007). Successful students scored significantly higher on total emotional intelligence, and on the sub-scales of Self-Actualization, Problem Solving, Reality Testing, Stress Tolerance, Happiness, and Optimism. (Newsom, Day, & Catano, 2000). Regression analysis indicated that interpersonal relationship subscale was a strong predictor of perceived stress. A number of related mechanisms have been hypothesized to account for the nexus of relationships between EI and perceived stress. First, high EI individuals are more aware of their emotions and also better able to regulate them, they should experience lower levels of distress and stress-related emotions, and concomitantly, experience higher levels of well-being. Second, given the working assumption that high EI individuals have an advantage in terms of greater social competence, richer social networks, and more effective coping strategies, this should serve to experience low stress. Third, because emotions provide information about one’s relationship to the environment and others, interpreting and responding to that information can direct action and thought in ways that enhance or maintain well-being (Zeidner, & Olnick-Shmesh, 2010). How ever, the results showed the relationship between emotional intelligence and
perceived stress, this study had some limitation such as sampling. We suggest in future research, this relationship compare among different sex and age groups.

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