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Personality and health: The mediating role of Trait Emotional Intelligence and Work Locus of Control

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ABSTRACT

Research has started to examine mediators between personality traits and health. The current research aims to investigate the roles of Trait Emotional Intelligence (Trait EI) and Work Locus of Control (WLC) as mediators of the paths between the Big Five personality traits and General Health in a sample of 328 university students (160 male). Structural Equation Modelling and mediation analyses, demonstrated as hypothesised, that Trait EI and WLC mediated the paths between personality and health. Direct effects on health were observed for Trait EI, WLC, Emotional Stability and to a lesser extent Openness to Experience. The study provides further evidence for the role of mediating variables in the path between personality traits and health.

1. Introduction

There is a long history in psychological research which has examined the relationships between personality traits and health outcomes (Furnham & Heaven, 1999; Smith, 2006). Early research focused on specific health-related personality factors (Friedman & Rosenman, 1959) while modern studies have examined relationships between the Big Five model of personality and health (Korotkov & Hannah, 2004). More recently research has started to examine mediators between personality traits and health (Greven, Chamorro-Premuzic, Arteche, & Furnham, 2008). There have been few empirical mediation studies (Smith, 2006), therefore further research has been called for to examine potential mediating variables (Greven et al., 2008).

The current research aims to investigate the roles of Trait Emotional Intelligence (Trait EI; Petrides & Furnham, 2003) and Work Locus of Control (WLC; Spector, 1988) as mediators of the paths between the Big Five personality traits (Saucier, 1994) and General Health as assessed by a self-report measure of general mental health and well-being (General Health Questionnaire: GHQ; Goldberg & Williams, 1988).

The Big Five personality traits (Emotional Stability, Extraversion, Openness, Agreeableness and Conscientiousness) were employed in this study as they are firmly entrenched within the nomological network (Cronbach & Meehl, 1955) of psychological theorists and are posited to be the highest order of personality traits (John & Srivastava, 1999). Further, the relationship between the Big Five and health has been comprehensively explored (Goodwin & Friedman, 2006; Hampson, Goldberg, Vogt, & Dubanoski, 2006; Korotkov & Hannah, 2004). This allows greater confidence during the exploration of mediation models. The research generally finds significant positive relationships between health and Emotional Stability (Smith, 2006).

Emotional Intelligence can be broadly defined as the ability to perceive, control, and evaluate emotions. Individuals high in Trait EI have been found to demonstrate the ability to monitor, communicate and manage their emotions in addition to efficacious stress management (Petrides, 2001). There are different conceptualizations of Emotional Intelligence in the research literature including: ability approaches which examine relatively discrete mental abilities that process emotional information (Mayer, Roberts, & Barsade, 2008); and Trait approaches where Trait EI is postulated to be a personality trait occupying the lower levels of the personality hierarchies (Petrides, Pita, & Kokkinaki, 2007). In line with the Trait hypothesis, researchers have demonstrated consistent relationships between Trait EI and the Big Five personality traits (Petrides et al., 2007), such that direct relationships between Trait EI and the Big Five could be anticipated. Studies have yielded negative relationships between Trait EI and mental health (Dawda & Hart, 2000; Mavroveli, Petrides, Rieffe, & Bakker, 2007) as well as General Health (Greven et al., 2008; Saklofske, Austin, Galloway, & Davidson, 2007). Trait EI has also been demonstrated to act as a mediating variable in the path between personality and health (Greven et al., 2008).

Locus of control is defined as a generalised expectancy that rewards or outcomes in life are controlled either by one's own actions (internality) or by other forces (externality). Domain specific measures of locus of control have subsequently been developed from this initial conceptualisation of general locus of

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control (Rotter, 1966). The Work Locus of Control Scale (WLC; Spector, 1988) contains items specifically concerned with the work domain and measures generalised control beliefs towards a work setting. There is no direct evidence in the literature of relationships between TEI and WLC. However, links have been demonstrated between TEI and both self-efficacy and stress (Mikolajczak & Luminet, 2008) and coping (Mikolajczak, Nelis, Hansenne, & Quiodbach, 2008). Further, there are known relationships between self-efficacy, stress and Locus of Control (Berg, Hem, Lau, Håseth, & Ekeberg, 2005; Spector et al., 2002). Therefore, it follows that WLC should likely be directly related to TEI.

Work Locus of Control has been demonstrated to be related to attitudinal outcomes like Job Satisfaction (Muhonen & Torkelson, 2004) and Intention to Quit (Siu & Cooper, 1998) as well as health outcomes like stress (Berg et al., 2005; Botha & Pienaar, 2006) and general well-being (Spector et al., 2002). Furthermore, WLC has been identified as an important "third variable" between predictor and criterion variables (Zapf, Dormann, & Frese, 1996) making it an ideal mediating variable to examine in the paths between personality, Trait EI and health.

In considering the role of Trait EI as a mediator of the path between personality and health, it may be suggested that Trait EI integrates the affective components of personality into a single trait (Petrides & Furnham, 2001). Given that it is these affective components that will have a significant impact upon health, through the way life events are appraised, prioritised and managed, it is anticipated that TEI will fully mediate the relationship between personality and self-reported General Health. However, given that Emotional Stability is by definition focused upon affective components of personality (Costa & McCrae, 1992) and is known to possess strong relationships to health (Smith, 2006), a direct effect between Emotional Stability and Health can be expected.

Further, it may be hypothesised that Trait EI will mediate the relationship between the Big Five and WLC. On the basis that key facets of Trait EI are perceived control and regulation of emotions (Petrides & Furnham, 2001). This perceived control over emotions may play a fundamental role in perceived control over other issues, including control at work.

1.1. Hypotheses

H1: Emotional Stability, Extraversion, Openness to Experience, Agreeableness and Conscientiousness will have a direct positive impact upon Trait EI.

H2: Trait EI will negatively and directly impact upon Work Locus of Control.

H3: Work Locus of Control, will positively and directly impact upon General Health.

H4a: The relationship between the Big Five and General Health will be fully mediated by Trait EI, with the exception of H4b; Emotional Stability which in addition to possessing a mediating effect, will directly impact upon General Health.

H5: The relationship between the Big Five and Work Locus of Control will be fully mediated by Trait EI.

H6: The relationship between Trait EI and General Health will be partially mediated by Work Locus of Control.

2. Method

2.1. Participants

The participants were 328 undergraduate students (160 male, 167 female, 1 not reported) taking an introductory psychology course at The University of Manchester. The students were aged between 17 and 26 years (M = 18.7, SD = 1.14 years). Sixty seven percent of students were white; 14% Chinese; and 19% members of other ethnicities. Where English was not the first language participants achieved a minimum score of 7.0 on the IELTS, a recognised test of English language.

2.2. Measures

Personality was measured by *FFM Minimarkers* (Saucier, 1994) a list of 40 adjectival traits. Participants were asked to describe themselves using a 9-point scale (1 = 'extremely inaccurate' to 9 = 'extremely accurate'). The scale possesses excellent reliability (Dwight, Cummings, & Glenar, 1998).

Trait EI was assessed by the *Trait EI Questionnaire* (TEIQue, Petrides & Furnham, 2003) using a 7-point scale (1 = 'completely disagree' to 7 = 'completely agree'). The 30-item measure can be scored to produce a total Trait EI score. Norms and evidence for reliability can be found in Petrides and Furnham (2006).

Work Locus of Control was assessed by the *Work Locus of Control Scale* (Spector, 1988), a 16-item measure on a 6-point scale (1 = 'disagree very much' to 6 = 'agree very much'). Evidence for reliability can be found in Spector (1988).

General Health was assessed by the 12-item General Health Questionnaire (GHQ-12; Goldberg & Williams, 1988). Respondents indicate how well their health has been 'over the past few weeks' on 4-point scales (e.g. 1 = 'more so than usual' to 4 = 'much less than usual'). The GHQ12 was selected for this study as it is a widely used, reliable and validated scale of mental health and well-being (Hardy, Shapiro, Haynes, & Rick, 1999). Furthermore, the brevity of the GHQ12 makes it ideal for use where time taken to complete is a consideration.

Demographic information: Participants were asked to indicate their age, gender, ethnicity.

2.3. Procedure

Administration of the pen and paper questionnaires took place within regular psychology seminars (consisting of 20–25 people) as part of a course assignment. Informed consent was obtained. The questionnaires were completed sequentially, in the order above, and participants debriefed.

3. Results

3.1. Preliminary analyses

Inspection of the dataset revealed a small number of randomly distributed missing items (n = 64), these were replaced with the median item value. Negative items were recoded and factor scales computed through the summing of items. Means, Standard Deviations and Cronbach Alpha values were calculated for each scale, see Table 1. All were within acceptable levels. Scale intercorrelations was also computed, see Table 2.

The correlation matrix revealed that the Big Five personality factors Emotional Stability and Extraversion were strongly related to General Health. Conscientiousness was also related to General Health but to a lesser extent. In all cases higher scores on the personality factors were related to better health.

Trait EI positively correlated with each of the personality factors, indicating higher scores on the personality factors related to higher levels of Trait EI. Trait EI negatively correlated with Work Locus of Control (higher levels of Trait EI relate to an internal locus of control), and General Health (higher levels of Trait EI relate to better health).