The role of positive and negative affectivity, optimism, Pessimism, and information processing styles in student psychological adjustment

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Abstract

Aim: The aim of this study was to investigate the role of positive and negative emotion, pessimism and optimism, and information processing styles in student psychological adjustment. Method: The research sample consisted of 400 students of Tabriz University that were selected by multi-stage cluster sampling method. Positive and negative affect scale (PANAS), Life Orientation-Revised (LOT-R), California Psychological Test (CPI), and Perceive Modes of Processing Inventory (PMPI) scales were used for collecting of data. The data were analyzed by multiple regression and Pearson’s correlation coefficient methods. Results: Findings showed that Optimism, positive emotions, rational information processing style and experimental information processing style can significantly predict the psychological adjustment respectively. Conclusion: These results suggest that student's psychological adjustment is significantly influenced by their emotional, attributive, and cognitive factors.

Keywords: positive and negative emotion; optimism; pessimism; processing styles; psychological adjustment.

1. Introduction

Since the cognitive turn in psychology three decades ago (Dember, 1974), cognitive models of psychological adjustment have proliferated in the empirical literature (Dobson & Kendall, 1993). Although there is still no consensus on a universal cognitive model of psychological adjustment, one model that has come to stand out in recent years is the one associated with the works of Seligman (1975); for a review, see Gillham, Shatte’, Reivich, and Seligman (2001).

Over the past several decades, researchers, scholars, and practitioners have become increasingly interested in studying optimism and pessimism. According to Scheier and Carver (1985), optimism and pessimism, defined as generalized positive and negative outcome expectancies, respectively, are believed to represent important predictors of adjustment. Specifically, these investigators have argued that optimism is associated with and leads to securing...
positive outcomes, whereas pessimism is associated with and leads to incurring negative outcomes (Scheier & Carver, 1985). Consistent with this view, numerous studies have found that optimism is associated with greater positive psychological outcomes, whereas pessimism is associated with greater negative psychological outcomes. For example, optimism has been found to be associated with greater life satisfaction (Chang, Maydeu-Olivares, & D’Zurilla, 1997), whereas pessimism has been found to be associated with greater depressive symptoms (Chang et al., 1997). A series of studies have also shown that these constructs have implications for the manner in which people cope with stressful experiences, and the success with which they cope in their lives. For example, higher scores on optimism have been associated with less psychological maladjustment, including higher perceived stress, and greater life satisfaction (Chang, 2002). In contrast, there is a good deal of evidence that links pessimism to lower life satisfaction, greater perceived stress (Chang, 2002) and higher depressive symptoms (Chang, Sanna, & Yang, 2003).

However, recent findings have made clear that the study of cognitive concomitants of psychological adjustment must also consider the role of mood. According to Watson and Clark (1984; Watson, Clark, & Tellegen, 1988), mood is also composed of two distinguishable dimensions, namely positive and negative affect. Whereas positive affectivity reflects the extent to which individuals generally feel active, alert, and enthusiastic, negative affectivity reflects the extent to which individuals generally feel upset or unpleasantly aroused (Watson et al., 1988). Noteworthy, findings from recent studies have shown that measures of psychological adjustment (e.g. depression and life satisfaction) are strongly associated with both negative and positive affectivity (e.g. Chang et al., 1997). According to Burns and D’Zurilla (1999), rational information processing style involves the use of logical reasoning, creative thinking and the use of problem solving methods to cope with stressful situations, whereas experiential processing style involves the use of feeling and emotions to guide coping behaviour. In addition to these two dimensions, Burns and D’Zurilla (1999) also found evidence for a third information-processing style that was automatic and related to, but not redundant with, both rational and experiential information-processing styles. In contrast to the other two styles, automatic processing style involves the use of post coping experience which can result in fast and efficient coping responses. Consistent with the view that these cognitive styles are important determinants of adjustment, Burns and D’Zurilla (1999) found significant associations between the different PMPI scales and measure of psychological adjustment, including life satisfaction and depressive symptoms. Accordingly, there has been growing interest in examining the influence of optimism and pessimism, positive affectivity and negative affectivity and information processing styles on psychological adjustment.

2. Method

2.1. Sample

In this descriptive and correlation study, 400 college students of Tabriz University were selected by multi-stage cluster sampling method as sample.

2.2. Data collection instruments

2.2.1. California Psychological Inventory (SPI)

The California Psychological Inventory As described in Section 1, the CPI (Gough & Bradley, 1996) is a broadband psychological measure designed to assess personal attributes relevant to everyday life. The most recent version of the CPI includes 434 true-false items, and is most frequently scored using 23 folk and vector scales. Gough and Bradley (1996) summarized evidence that the standard CPI scales correlate in meaningful ways with other psychological measures, with peer-reports, and with a variety of outcome variables.

2.2.2. Positive and Negative Affect Schedule (PANAS)

The PANAS (Watson et al., 1988) is a 20-item self-report measure of positive and negative affect, with 10 items assessing for positive affect or PA (e.g. “enthusiasm”) and 10 items for negative affect or NA (e.g. “irritable”). Respondents are asked to rate how they feel for each item across a 5-point Likert-type scale ranging from 1 (very slightly) to 5 (extremely). For the present study, instructions asked how respondents felt in general (i.e. “Indicate to what extent you generally feel this way, that is, how you feel on the average.”). Evidence for the construct validity of the PANAS PA and NA scales has been reported in Watson et al. (1988).

2.2.3. Revised Life Orientation Test (LOT-R)

The LOT-R (Scheier et al., 1994) is a six-item measure (plus four filler items) of individual differences in optimism or OPT (e.g. “In uncertain times, I usually expect the best”) and pessimism or PESS (e.g. “If something can go wrong, it will”). Respondents are asked to rate the extent to which agreement to these items across a 5-point Likert-type scale ranging from 0 (strongly disagree) to 4 (strongly agree). The LOT-R is a brief modified version of the original Life Orientation Test (LOT; Scheier & Carver, 1985) and has been found to correlate 0.95 with the latter (see Scheier et al., 1994). Support for the construct validity of the LOT-R has been reported in Scheier et al. (1994).
2.2.4. Information-processing styles

Information-processing styles were measured by the PMPI (Burns & Zurrlla, 1999). The PMPI is a 32-item measure of individual differences in information-processing styles. Twelve items assess for Rational Information-processing style (PMPI-R e.g. I often think about my stressful situation and then try to find new ways to resolve them), then items assess for Experiential Information-processing style (PMPI-E, e.g. To cop, I usually go with my instincts rather than trying to reason thing out), and the remaining then items assess for Automatic Information-processing style (PMPI-A, e.g. I am often aware of how to cope with a stressful situation even before I review all its aspects). Respondents are asked to rate the extent to which each item is generally true for them across a 5-point Likert-type scale ranging from I (not at all true of me) to 5 (extremely true of me). Higher t a greater tendency to engage in that mode of information processing in dealing with stressful situations.

3. Results

Table 1 shows the means, standard deviations and correlations among the measures employed in this study. The results showed that there were significant correlations among variables. Psychological adjustment was positively correlated with PMPI-R and PMPI-E, LOT-R-OPT, PA whereas negatively correlated with PN and LOT-R-PESS.

| Psychological adjustment | PMPI-R | PMPI-E | PMPI-A | LOT-R-OPT | LOT-R-PESS | PA | PN |
|-------------------------|--------|--------|--------|-----------|-----------|----|----|
| Psychological adjustment | -      | 0.35*  | 0.26*  | -0.08     | 0.61**    |    |    |
| M                       | 65/5   | 41/2   | 35/8   | 31/2      | 19/5      | 14/5| 30/2| 25/9 |
| S.D.                    | 7/2    | 5/2    | 4/3    | 3/8       | 3/1       | 2/8 | 4/5 | 3/8  |

Note. N= 400, *p<.05,**p<.01

Further analysis on understanding students’ Psychological adjustment were conducted using a standard multiple regression analysis incorporating students’ PMPI-R, PMPI-E and PMPI-A, LOT-R-OPT and LOT-R-PESS, PA and PN and as predictor variables. Multiple regression analysis for the total sample results revealed that predictor variables explained 50% of the variance.

| Model  | Mean Square | Df | Mean Square | F     | Sig. | R   | R²  |
|--------|-------------|----|-------------|-------|------|-----|-----|
| 1      | 1979/28     | 8  | 247/41      | 100/57| 0/01 | 0/71| 0/50 |
| Residual | 965/22   | 392 | 2/46        |       |      |     |     |
| Total  | 52944       | 399|             |       |      |     |     |

a. Predictors (constant): optimism and pessimism, positive affect and negative affect, information-processing styles.
b. Dependent variable: Psychological adjustment.

Finally, Stepwise Regression Analysis was performed to determine the predictive optimism and pessimism, positive affect and negative affect, information-processing styles., as independent variables, school students’ Psychological adjustment. According to the results obtained from regression analysis; optimism explained %37, positive affect %43, PMPI-R %47 and PMPI-E %50 of variance in Psychological adjustment. Moreover, PMPI-E was the best predictor of the Psychological adjustment. PMPI-R, positive affect and optimism contributed to model, respectively. Other variables which were negative affect, pmpi-a and pessimism did not make any contribution to this model (see Table3)

| Model  | F    | R   | R²  | F    | Sig |
|--------|------|-----|-----|------|-----|
| Stepwise | optimism | 0/61 | 0/37 | 170/9 | 0/01 |
|         | positive affect | 0/66 | 0/43 | 151/01 | 0/01 |
|         | PMPI-R | 0/69 | 0/47 | 132/26 | 0/01 |
|         | PMPI-E | 0/71 | 0/50 | 115/16 | 0/01 |
4. Discussion

As data analysis showed, the optimism is the most important predictors of psychological adjustment among the studied variables and this variable has a significant share in the determination of psychological adjustment. This finding is consistency with other researchers finding like Peterson et al. (2004), Seligman, (2000), and Carver (1985). In explaining and interpreting this finding, we can point the theories of cognitive psychologists such as Seligman, (2000). He is pointed out the optimism as cognitive factors that affects the psychological adjustment; because it strengthens the body’s immune and protection system. This means that people with optimistic attribute have positive life events to their own abilities and efforts, and have high control over their life events. In other hand, these people attribute negative events to external transient and specific factors. Also findings showed that positive emotions among the predictive variables in the psychological adjustment are significant. This finding is consistency with other researchers finding like fredickson , (2002) and Watson, (2000). In explanation of this finding, fredickson , (2002) stated that positive emotions and feelings make human self-efficacy perception better and make them ready to deal with life changes. In other words, having feelings and positive emotions, will direct persons attitude and the world in the positive direction. And these changes in attitudes, make more ready to meet the challenges of life. In other hand findings showed that the rational and experimental information processing have a positive role in psychological adjustment. In order to explain this findings, dezorilla,(2002) stated that coping with challenging situations, requires a wise and intelligent approach to the issues. And having a rational style, causes the person avoids of enter the unprogramed challenging situations. And has embodied various solutions in his mind, and to solve problems that may occur in Applying the methods to be focused, and destroyed a variety of solution, those more advantageous solution. Results also showed that negative emotions and pessimism have a negative relationship with psychological adjustment. In explain this finding can also point velman,(1998) view, that he explains negative emotions are being blocked and disrupts higher level processing. And in proportion of this results, the field of immature and avoidance defense reaction will be more prepared.

The present study contains some limitations that must be acknowledged. Firstly, it was not possible to examine gender differences due to the uneven distribution of males and females in our study. Secondly, to measure the research variables of self-report instruments were used, there is the possibility of bias in response to questions.Thus; we recommend to studying this research in other grades and among students at other universes. In conclusion, the present findings add support to the importance of optimism/pessimism, positive and negative affectivity and information-processing styles in understanding psychological adjustment.

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