



The Relationship between Adaptive / Maladaptive Cognitive Emotion Regulation Strategies and Cognitive Test Anxiety among University Students

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Abstract

The purpose of this study was to investigate the role of adaptive / maladaptive cognitive emotion regulation strategies in the prediction of cognitive test anxiety among university students . The study employed the descriptive survey method. The sample of the study comprised of 150(130 females. 20 males ,Mean age= 19.8 years , SD = .89) fourth year undergraduate students attending Faculty of Specific Education in Cairo University for the academic year 2017/2018 . The study utilized questionnaires and instruments to measure psychosocial adaptive / maladaptive cognitive emotion regulation strategies, and cognitive test anxiety. The correlation coefficient results revealed significant positive relationship between cognitive test anxiety and self-blame ($r = .532$) , blaming others ($r = .281$) , rumination ($r = .412$) and catastrophizing ($r = .565$) while the correlation coefficients were negative for acceptance ($r = -.387$) , refocus on planning ($r = -.356$), positive refocusing($r = -.323$), positive reappraisal ($r = -.344$), and putting into perspective($r = -.289$). Multiple regression was performed where relative contribution of the independent variables to the prediction were observed. Findings were discussed and conclusion was included.

Keywords. Adaptive / Maladaptive Cognitive Emotion Regulation Strategies, Cognitive Test Anxiety ,University Students

Introduction

Test anxiety is a psychological condition in which students experience extreme distress and anxiety in test situations. A such ,it can be regarded as the most important problem that students in all stages of the educational ladder face in their learning all over the world. Test anxiety is a two-factor construct, consisting of the cognitive (often referred to as “worry”) and emotional (or affective) components(Jerrell & Ronald, 2001). Test anxiety is defined as a “set of phenomenological, psychological, and behavioral responses that accompany concern about possible negative consequences or failure of an exam or similar evaluation situations” (Zeidner, 2007).

Those with test anxiety may have difficulty in concentrating in test settings and they are easily distracted and may have difficulty in recalling of information as a result of exhausted cognition. There are some physiological symptoms of test anxiety . This may be due to activation of the autonomic system . The physiological symptoms of test anxiety may include perspiration, headache, tachycardia and ,in advanced cases, severe gastrointestinal disturbances . However ,human beings have the ability to deliberately alter their emotional experience; that is, they have the ability to self-regulate their emotional states (Tice & Bratslavsky, 2000).

Cognitive emotion regulation has a key role in normal and abnormal processes and it is efficient against negative stimuli and unpleasant emotional experiences (Duarte, Ana Catarina, Matos, Ana Paula, & Marques, Cristiana,2015).). Nine cognitive coping approaches can be evaluated by The CERQ : (1) self-blame; (2) blaming others; (3) acceptance; (4) refocus on planning (refers to the required steps that need to be taken to deal with the situation); (5) positive refocusing (focus on positive experiences); (6) rumination; (7) positive reappraisal (attributing some kinds of positive importance to the

event); (8) putting into perspective (lowering the significance of the event); and (9) catastrophizing.

There is a paucity of that investigated the role of adaptive / maladaptive cognitive emotion regulation strategies on test anxiety among students. so, the purpose of this study is to investigate the role of adaptive / maladaptive cognitive emotion regulation strategies in the prediction of cognitive test anxiety among university students.

Research Questions and Hypotheses of the Present Study

The following two research questions were posed and investigated in the study:

- Are there correlation between adaptive / maladaptive cognitive emotion regulation strategies and cognitive test anxiety among university students ?

What is the relative contribution of adaptive / maladaptive cognitive emotion regulation strategies to cognitive test anxiety among university students?

The following hypotheses were tested:

H1: there correlation between adaptive / maladaptive cognitive emotion regulation strategies and cognitive test anxiety among university students

H2: Adaptive / maladaptive cognitive emotion regulation strategies have a relative contribution to cognitive test anxiety among university students.

Materials and Methods

The study employed the descriptive survey method to describe academic overload, self-efficacy and perceived social support as predictors of academic adjustment among first year university students.

Sample: The sample of the study comprised of 150(130 females. 20 males ,Mean age= 19.8 years , SD = .89) fourth year undergraduate students attending Faculty of Specific Education in Cairo University for the academic year 2017/2018 .

Measures :The study utilized questionnaires and instruments to Cognitive emotion regulation strategies, and cognitive test anxiety.

1- *Cognitive emotion regulation strategies*(Garnefsky and Kraaij,2007): Cognitive emotion regulation strategies were measured by the Cognitive Emotion Regulation Questionnaire (CERQ). The Questionnaire was translated into Arabic by using the translation-back-translation method. The CERQ is a self-report questionnaire assessing what people think after the experience of threatening or stressful events. The CERQ consists of 36 items and has nine conceptually different subscales: Self-blame, Other-blame, Rumination, Catastrophizing, Putting into perspective, Positive refocusing, Positive reappraisal, Acceptance, and Planning. Each subscale consists of 4 items. Answer categories range from 1 (never) to 5 (always). A subscale score can be obtained by adding up the four items (range: from 4 to 20), indicating the extent to which a certain cognitive emotion regulation strategy is used. It has been shown that the alpha-reliabilities of the subscales range from .77 to .89. The validity of the questionnaire found out by finding the inter-item consistency which proved to significant at the 0.01 level for all items.

2- *Cognitive Test Anxiety scale* (Jerrell & Ronald ,2002). A 27-item scale which is generally completed by undergraduate students in 8 to 15 min. The Scale follow 4 point Likert scale (Not at all typical of me, Only somewhat typical of me, Quite typical of me, and Very typical of me.)

The test-re-test reliability of the questionnaire was found out to be 0.92, The validity of the questionnaire found out by finding the inter-item consistency which proved to significant at the 0.01 level for all items.

Procedure . Prior to data collection, a written informed consent was obtained from the participants. Six participants withdrew from the study.

Data Analysis .After checking the retrieved questionnaires to determine their suitability for analysis, and discarding those with missing information, the data were collated and analyzed using IBM SPSS Statistics 20. Computations for descriptive statistics, correlations, and regression were done.

Results

Correlation analysis

Prior to carrying out the regression analysis it was first necessary to conduct bivariate correlation analysis to ascertain the relationships between subscales of adaptive / maladaptive cognitive emotion regulation strategies and cognitive test anxiety.

The correlation coefficient results revealed significant positive relationship between cognitive test anxiety and self-blame ($r = .532$) , blaming others ($r = .281$) , rumination ($r = .412$) and catastrophizing ($r = .565$) while the correlation coefficients were negative for acceptance ($r = -.387$) , refocus on planning ($r = -.356$), positive refocusing($r = -.323$), positive reappraisal ($r = -.344$), and putting into perspective($r = -.289$).

Table 1. Pearson correlation coefficients between subscales of Adaptive / maladaptive cognitive emotion regulation strategies and cognitive test anxiety

subscales of Adaptive / maladaptive cognitive emotion regulation strategies	cognitive test anxiety
self-blame	.532**
blaming others	.281*
acceptance	-.387*
refocus on planning	-.356*
positive refocusing	-.323*
rumination	.412**
positive reappraisal	-.344*
putting into perspective	-.289*
catastrophizing	.565**

Regression analysis

Multiple regression was performed to investigate the ability of subscales of adaptive / maladaptive cognitive emotion regulation strategies to predict cognitive test anxiety. As shown in Table 2, the results indicated that the following beta weights which represented the relative contribution of the independent variables to the prediction were observed. self-blame ($\beta = .313$, $t = 2.010$), blaming others($\beta = .327$, $t = 2.273$),

acceptance($\beta = -.244$, $t = -2.098$), refocus on planning($\beta = -.287$, $t = -2.143$), positive refocusing($\beta = -.255$, $t = -2.164$), rumination($\beta = .323$, $t = 2.119$), positive reappraisal($\beta = -.411$, $t = -3.09$), putting into perspective($\beta = -.253$, $t = -2.103$), and catastrophizing($\beta = .444$, $t = 3.223$).

Table 2. Results of multiple regression for prediction of cognitive test anxiety

Variables	R ²	F	β	t	Sig(p)
	.330	6.541 ^{**}			
self-blame			.313	2.010	.047 [*]
blaming others			.327	2.273	.025 [*]
acceptance			-.244	-2.098	.039 [*]
refocus on planning			-.287	-2.143	.021 [*]
positive refocusing			-.255	-2.164	.025 [*]
rumination			.323	2.119	.038 [*]
positive reappraisal			-.411	-3.09	.020 [*]
putting into perspective			-.253	-2.103	.023 [*]
catastrophizing			.444	3.223	.00 [*]

Discussion

The purpose of this study was to investigate the role of adaptive / maladaptive cognitive emotion regulation strategies in the prediction of cognitive test anxiety among university students. Results revealed significant positive relationship between cognitive test anxiety and self-blame ($r = .532$), blaming others ($r = .281$), rumination ($r = .412$) and catastrophizing ($r = .565$) while the correlation coefficients were negative for acceptance ($r = -.387$), refocus on planning ($r = -.356$), positive refocusing($r = -.323$), positive reappraisal ($r = -.344$), and putting into perspective($r = -.289$). As shown in Table 2, the results indicated that the following beta weights which represented the relative contribution of the independent variables to the prediction were observed. self-blame ($\beta = .313$, $t = 2.010$), blaming others($\beta = .327$, $t = 2.273$), acceptance($\beta = -.244$, $t = -2.098$), refocus on planning($\beta = -.287$, $t = -2.143$), positive refocusing($\beta = -.255$, $t = -2.164$), rumination($\beta = .323$, $t = 2.119$), positive reappraisal($\beta = -.411$, $t = -3.09$), putting into perspective($\beta = -.253$, $t = -2.103$), and catastrophizing($\beta = .444$, $t = 3.223$).

It can be inferred from these results that overuse of self-blame, blaming others, rumination, and catastrophizing strategies as maladaptive reactions are accompanied by higher intensification and continuation of cognitive test anxiety. The negative relationship between cognitive test anxiety, in one hand, and planning, positive refocusing, positive reappraisal strategies, on the other hand, has also been reported in several other studies. The relevant research suggests that in encountering with stressful events, such as test situation, students who apply adaptive (planning, positive refocusing, positive reappraisal and putting into perspective) strategies experience less test anxiety (Chan et al., 2015; Martin & Dahlen, 2005) and catastrophizing and personalization have been shown to predict manifest anxiety (Weems, Berman, Silverman, & Saavedra, 2001). That is, using more rumination and catastrophizing strategies as well as fewer acceptance and positive refocusing strategies would lead to higher scores in cognitive test anxiety.

Conclusions

In this study, the relationships between adaptive and maladaptive emotion regulation strategies and cognitive test anxiety have become clear. Adaptive strategies relate to lower scores on cognitive test anxiety. Maladaptive strategies relate to higher scores on cognitive test anxiety. This means that emotion regulation is important in people who struggle with cognitive test anxiety, and emotion regulation should be a part of the assessment and treatment these people receive.

We can clearly say that any of the student's problems result from test anxiety and using negative and inefficient emotional cognitive strategies while being evaluated at the university level. This negative and inefficient strategy highly affect the result of their academic achievement.

In conclusion, the present study found indications for relationships between cognitive emotion regulation strategies and cognitive test anxiety among university students in Egypt. This provides possible targets for interventions to improve cognitive test anxiety. However, because this was the first study that focused on such relationships in Egypt, further research is necessary.

I hope that that this study will be of some benefit to students and teachers in developing cognitive emotion regulation strategies for effective learning.

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