Emotional Determinants of Test Anxiety and Academic Performance

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~ To our final promise ~

~ Will miss you always ~

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Abstract

The effect of test anxiety on academic performance has been studied extensively throughout the past few decades. Recent developments in test anxiety research have largely been based within the cognitive psychology framework, where different components of *working memory* were identified to mediate the relationship between test anxiety and test performance. Similarly, the field of educational psychology has expanded this area of research to identify the different pathways in which emotional states can serve both activating and deactivating roles towards learning and achievement. From the clinical psychology perspective, the connection between emotional experiences and thought processes is an integral part of assessment which then informs ways of intervention. However, there is limited research that explicitly examines the relationship between general emotional distress and more specific forms of test-related distress, such as the cognitive and physiological components of test anxiety.

The Tripartite Model of Emotions (TME) is used to explore the connection between general emotional distress and test anxiety. The model proposed that the experiences of depression and anxiety are predisposed by a combination of three high-order dimensions of emotional distress: positive affect (or lack thereof), negative affect, and physiological hyperarousal. While researchers have identified these tripartite factors to be significant predictors of various health and performance outcomes, the degree to which the tripartite model may account for the experience of test anxiety, as well as the level of academic performance, remains unclear.

In the present study, 642 secondary school students (aged 16-19) completed a questionnaire comprised of measures of test anxiety, depression, anxiety, and the tripartite dimensions. This enabled a cross-sectional investigation into the validity of the tripartite model of emotions, as well as how test anxiety may be predicted by the higher-order factors of emotional distress. The grade point averages of a sub-sample of 188 students were gathered, which enabled a prospective investigation

into how these emotional variables influenced academic performance. Structural equation modeling was employed to simultaneously test the relationships among the aforementioned variables, and to identify an explanatory model for academic performance.

There was support for the tripartite factors' hypothesized influence on depression and test anxiety. Specifically, low levels of positive affect (PA) and high levels of negative affect (NA) influenced the experience of depressive symptoms, while high levels of negative affect and physiological hyperarousal (PH) influenced test anxiety symptoms. Negative affect was not revealed to have a direct influence on test performance. Rather, its influence may be mediated by more specific factors, including the cognitive and affective features of test anxiety. In the presence of test-related worries, negative affect may indirectly impair test performance. However, in the absence of such worries, there is potential for negative affect or the sense of emotional apprehension to facilitate better performance.

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List of Acronyms

AFARS	-	Affect and Arousal Scale
AIC	-	Akaike Information Criteria
APA	-	American Psychiatric Association
CDI	-	Children's Depression Inventory
CFI	-	Comparative Fit Index
CR	-	Critical Ration
df	-	Degrees of freedom
ECVI	-	Expected Cross-Validation Index
EFC	-	Emotion-focused coping
GAD	-	Generalised Anxiety Disorder
GPA	-	Grade point average
n.d.	-	No date
(N)MAR	-	(Not) missing at random
NA	-	Negative affect
NCEA	-	National Certification of Educational Achievement
OCD	-	Obsessive Compulsive Disorder
PA	-	Positive affect
PET	-	Processing efficiency theory
PFC	-	Problem-focused coping
PGFI	-	Parsimony Goodness of Fit Index
PH	-	Physiological hyperarousal
PH-PANAS-C	-	Positive and Negative Affect Schedule for Children & Physiological Hyperarousal Scale for Children
PNFI	-	Parsimony Normed Fit Index
RADS-II	-	Reynolds Adolescent Depression Scale – Second edition
RCMAS	-	Revised Children's Manifest Anxiety Scale
RMSEA	-	Root Mean Square of Approximation
RTT	-	Reactions to Tests
SCARED-R	-	Screen of Children's Anxiety Related Emotional Disorders – Revised
SD	-	Standard deviation
SEM	-	Structural equation modeling
STAI-C	-	State Trait Anxiety Inventory for Children
TAI	-	Test Anxiety Inventory
TLI	-	Tucker-Lewis Index
TME	-	Tripartite Model of Emotions