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The stress process, self-efficacy expectations, and psychological health

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Abstract

In this study the effects of the stress process after a stressful encounter, that is an examination period, on university students' psychological health, as well as certain factors that play a significant role in this relationship are being examined. Two hundred and ninety-one (291) students at the University of Athens participated in our study. They completed a series of questionnaires concerning (a) psychological symptoms; (b) self-efficacy expectations; (c) threat, challenge and stakes; (d) coping strategies, and (e) a cognitive self-schema concerning personal examination abilities. The questionnaires were completed in three phases: three months and one week before an examination period, and one week after completion of this period. According to the findings, psychological symptoms are predicted by prior health, appraisal variables, and certain coping strategies. Self-efficacy expectations play a significant role in shaping threat, challenge, and stakes. These appraisal categories in turn exert influence upon psychological health, even after controlling for prior psychological health and coping strategies. Self-efficacy serves as the key variable in the appraisal process, as well as a mediator between inner cognitive structures and stress outcomes.

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Keywords: Stress process; Self-efficacy expectations; Cognitive structures; Coping; Psychological health

1. Introduction

The diverse perspectives from which the subject of psychosocial stress is approached vary along a number of dimensions. Therefore, many models try to define stress and describe its components. According to Sarafino (1999), who borrows ideas from several sources, stress is the condition that

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results when person–environment transactions lead the individual to perceive a discrepancy between the environmental demands and the person's resources. Lazarus (1966, 1991, 1993) and his co-workers (Lazarus, Averill, & Opton, 1970; Lazarus & Folkman, 1984a, 1984b) focus on cognitive appraisal as a key variable, and especially as a mediator between stimuli and stress reactions.

Cognitive appraisal includes two processes, primary and secondary appraisal. In primary appraisal, a situation is judged as being irrelevant, benign-positive, or stressful. Stressful appraisals conclude in three kinds of appraisal, namely, harm, threat, and challenge (Lazarus & Folkman, 1984a, 1984b). Harm represents damage already done. Threat refers to the potential for harm and it is experienced when the person anticipates future harm or loss. Finally, challenge refers to the potential for gain even under difficult situations. Threat and challenge are anticipatory appraisals.

In secondary appraisal the person evaluates coping resources and options. The individual evaluates his/her competence, material or other resources in order to cope with the stressful situation. Coping refers to the cognitive and behavioural efforts to manage (master, reduce, or tolerate) a troubled person–environment relationship (Folkman & Lazarus, 1985). According to Folkman and Lazarus (1980) coping has two major functions: the regulation of distressing emotions (emotion focused coping) and the undertaking of action in order to change for the better the problem causing the distress (problem focused coping). Coping and cognitive appraisal are interdependent. Each part exerts influence and determines the other.

Cognitive appraisal depends on the nature of the stressful situation or the environment and also on inter-person factors (Kaplan, 1996). Such influences interact in shaping the mediating process of appraisal, which in turn influences the choice of coping activity. There are many potential situation factors that play a significant role in this process, such as imminence and degree of harm, ambiguity about the degree of harm or coping options, duration, frequency and chronicity of the stressful encounter, etc. (Lazarus & Folkman, 1984a, 1984b). On the other hand, a variety of personal resources also appear especially important as appraisal determinants and coping resources, including self-efficacy, optimism, hardiness, sense of coherence, locus of control, beliefs about self and environment, values, etc. (Holahan, Moos, & Schaefer, 1996).

The appraisal and coping process has also been examined with studies conducted between undergraduate students that were dealing with examination stress. According to Zeidner (1995a), the coping process in test situations includes both problem and emotion focused strategies. Even though there is no consensus regarding which are the most effective and adaptive strategies, it seems that emotion focused (e.g., denial and use of drugs) are significant predictors of anxiety and other negative outcomes, while, on the other hand, problem focused coping moderates academic hassles and facilitates performance (Carver & Scheier, 1994; Folkman & Lazarus, 1985; Zeidner, 1994, 1995b). Cognitive appraisal and relevant factors are also of importance in evaluative situations. Zeidner (1994), for example, found that evaluation trait anxiety has a direct effect on anxiety during exams. Folkman and Lazarus (1985) found that, even controlling for grade received, appraisal and coping variables accounted for a large proportion of the variance in positive and negative emotions experienced by students. Raffety, Smith, and Ptacek (1997) also argue that challenge appraisals are related to a 'facilitating' form of anxiety, which is adaptive, while threat or harm appraisals are connected to a 'debilitating' anxiety, which is related to avoidance and low performance.

In recent years more and more emphasis has been put on the role that self-efficacy expectations play in the appraisal and coping process. According to Bandura (1977, 1982, 1997), self-

efficacy expectations are judgements about how well an individual can organise and carry out courses of behaviour necessary to cope with prospective situations involving ambiguous, unpredictable and stressful elements. Self-efficacy determines whether coping behaviour will be initiated, how long it will be sustained, and how much effort will be expended. Self-efficacy expectations are part of the broader cognitive appraisal that takes place in the stress process (O'Leary, 1992).

Bandura (1986, 1997) believes that self-efficacy expectations are one of the most important factors for the regulation of human behaviour. With respect to stress, it is mainly the perceived inefficacy that makes the person judge a situation as stressful, than the qualities of the situation per se (Bandura, Taylor, Williams, Mefford, & Barchas, 1985). A low sense of self-efficacy is associated with low self-esteem and pessimistic thoughts about self and abilities and accomplishments. Thus, people with low self-efficacy expectations avoid any action that, according to their opinion, exceeds their abilities. In contrast, a strong sense of efficacy enhances accomplishment and personal well-being. People with high efficacy approach any difficult tasks as challenges to be mastered. They also choose to perform more challenging tasks and they set themselves higher goals to which they adhere. Finally, they quickly recover their sense of efficacy and sustain their efforts in the face of difficulties (Bandura, 1997; Locke & Latham, 1990).

High self-efficacy has also been related to better health outcomes, and use of health protecting and health enhancing behaviours (Bandura, 1997). Low self-efficacy expectations are related to the use of emotion focused coping strategies, such as denial and self-blame (Terry, 1994), as well as to symptoms of high anxiety and distress, depression, psychosomatic symptoms, and negative well-being (Bandura, 1997; Holahan & Holahan, 1987; Kavanagh, 1992; O'Leary, 1992).

Besides self-efficacy, within the frame of cognitive theory, schemata are also an essential concept regarding cognitive processes and, consequently, regarding cognitive appraisals. Schemata are fundamental and enduring patterns that serve as basic, yet often unspoken, rules of life (Thase & Beck, 1993). Schemata serve as organising principles of human experience and they are shaped through the interaction with the environment (Guidano & Liotti, 1983). When a particular schema is activated by a threatening or otherwise stressful stimulus, it serves as a template against which past experience is retrieved and new experience is processed (Beck, Rush, Shaw, & Emery, 1979). Cognitive schemata refer to self (they organise personally relevant information), to the world and to the future (Beck et al., 1979). Cognitive theory posits an interactive relationship between schemata and emotional responses to adverse situations. Self-schemata also contribute to the formation of domain-specific self-efficacy judgements (Cervone, Jencious, & Shadel, 2002).

The examination of the relationships between inner cognitive structures, appraisal, coping, and health is important in terms of comprehending the broader person–environment interaction more effectively. The present study aims to test four hypotheses, namely (a) cognitive appraisal variables (i.e., self-efficacy, threat, challenge, stakes) are significantly related to psychological health and coping; (b) appraisal variables can predict psychological symptoms, even after controlling for prior psychological health status and coping; (c) self-efficacy expectations influence psychological health directly and indirectly, and also serve as a link between inner cognitive schemata and the appraisal process; (d) self-efficacy, stakes, threat and challenge serve as steps of an appraisal sequence in between cognitive schemata and psychological health.

2. Method

2.1. Participants

Two hundred and ninety one (291) university students participated in this study. Of these, 201 were females and 90 males. Their average age was 22.71 years ($SD = 2.31$). The participants came from the School of Philosophy and the School of Physics at the University of Athens.

2.2. Measures

Psychological health was assessed by the 28-item version of the General Health Questionnaire, as adapted in Greek (Moutzoukis, Adamopoulou, Garyfallos, & Karastergiou, 1990). GHQ is a well known and extensively validated screening questionnaire, and it provides a global index of psychological health. It consists of 28 items (e.g., 'have you felt ill?', 'are you constantly under strain?', 'do you have any death wishes?'), which were summed to give a total score. In general, higher scores indicate the presence of more symptoms.

Self-efficacy expectations for dealing with the examination period were measured by a 10-item questionnaire designed for the purposes of the present study. Students were asked to rate items across a Likert-type scale ranging from 0 (not at all) to 3 (a lot). A principal component factor analysis with varimax rotation revealed the presence of two factors that explained 54.9% of the total variance. The first factor, 'examination self-efficacy', assesses how capable the student thinks he/she is in order to deal effectively with an exam (43.1% of the variance, eigenvalue = 4.31, Cronbach $\alpha = 0.81$). Five items loaded on this factor (e.g., 'capable of achievement during an exam', 'capable of being relaxed during an exam', 'capable of expressing myself accurately'). The second factor, 'study self-efficacy', assesses the degree of capability in order to study effectively for the forthcoming examinations (11.8% of the variance, eigenvalue = 1.18, Cronbach $\alpha = 0.75$). Five items also loaded on this factor (e.g., 'capable of achieving a high performance', 'study adequately in order to achieve', 'high level of somatic and mental strength in order to deal with study'). In general, higher scores on both scales indicate higher self-efficacy.

Coping was measured by the Ways of Coping Checklist (Lazarus & Folkman, 1984a) as adapted to the Greek population (Karademas, 1998). The Checklist consists of 66 items covering a broad range of cognitive and behavioural strategies in order to deal with a stressful situation. Students were asked to rate items across a four point Likert-type scale (0 = does not apply/not used, 3 = used a great deal). Students were asked to assess how frequently they used each item regarding the difficulties they met during the last examination period. A principal component factor analysis with varimax rotation was performed and it revealed six factors that accounted for 41.9% of the total variance: (I) positive approach (10 items, 15.2% of the variance, eigenvalue = 8.51, Cronbach $\alpha = 0.78$). In this factor two components-strategies loaded, namely, problem solving (7 items, e.g., 'I knew what had to be done, so I doubled my efforts to make things work', 'I made a plan of action and followed it'), and positive appraisal (3 items, e.g., 'Changed or grew as a person in a good way'). (II) Denial/passive acceptance (9.4% of the variance, eigenvalue = 5.28, Cronbach $\alpha = 0.66$, 8 items, e.g., 'Tried to forget the whole thing', 'Went on as if nothing had happened', 'I felt that time would make a difference; the only thing to do was to wait'). (III) Social support (6.4% of the variance, eigenvalue = 3.59, Cronbach $\alpha = 0.80$, 5

items, e.g., ‘Talked to someone to find out more about the situation’, ‘I asked a relative or friend I respect for advice’). (IV) Self-isolation (4.3% of the variance, eigenvalue = 2.40, Cronbach $\alpha = 0.58$, 4 items, e.g., ‘Avoided being with people in general’, ‘Kept others from knowing how bad things are’). (V) Seeking help from God (3.6% of the variance, eigenvalue = 2.01, Cronbach $\alpha = 0.92$, 2 items, e.g., ‘I prayed’). (VI) Tension reduction (3.0% of the variance, eigenvalue = 1.67, Cronbach $\alpha = 0.55$, 3 items, e.g., ‘Didn’t let it get to me; refused to think too much about it’, ‘Got away from it for a while; tried to rest or take a vacation’). Scores were calculated by summing the ratings. Higher scores indicate more use of each strategy.

We also used the ‘low examination abilities’ scale as a self-schema regarding a global negative evaluation of personal study abilities. This is a subscale of a larger questionnaire (Study and Examination Abilities Questionnaire, Kalantzi-Azizi & Karademas, 1997) which refers to certain abilities that influence academic achievement (e.g., test anxiety, devotion to study). ‘Low examination abilities’ scale consists of seven items (e.g., ‘Other students study faster and more efficiently than I do’, ‘As a student I think of myself as being a failure’) (Cronbach $\alpha = 0.76$).

Appraisal was assessed by evaluating the degree to which participants felt threatened or challenged by examinations. They were asked to indicate on a five-point Likert-type scale (0 = not at all, 4 = a great deal) the extent to which they felt each of a series of six emotions regarding exams. These emotions are grouped into two appraisal categories (Folkman & Lazarus, 1985), that is, threat: worried, fearful, anxious (Cronbach $\alpha = 0.85$), and challenge: confident, hopeful, eager (Cronbach $\alpha = 0.62$). Scales were scored by summing the ratings for each emotion. Participants were also asked to evaluate the reasons why the forthcoming examinations might be stressful, that is the stakes they had to deal with. Stakes were measured with a five-point Likert-type scale (0 = does not apply, 4 = applies a great deal). The scale included six items (e.g., ‘not achieving the grade I want’, ‘loosing time to my graduation’, ‘appearing incompetent to others’) (Cronbach $\alpha = 0.78$).

Participants completed the questionnaires three times: in the middle of the spring semester (three months before the examination period), a week before exams, and one week after the completion of the examination period. At the first administration, students were asked to complete the GHQ, and the ‘low examination abilities’ scale. At the second, they were asked to complete the GHQ again, the self-efficacy questionnaire, and the threat, challenge and stakes scales. Ways of Coping with the problems raised in relation to the recent examination period and, once again, GHQ were assessed at the third administration. Participants were not aware of the purposes of the study until after the end of the third administration. We note that according to the Greek Higher Education system, failure in examinations has no major consequences for the student (e.g., leaving the School).

3. Results

Table 1 presents the means, standard deviations, and the correlation matrix between all variables included in the analysis. An inspection of the matrix reveals several interesting insights with respect to the relations of appraisal variables to health and coping (hypothesis (a)). First, regarding GHQ score at the examination period a series of significant and moderate to high correlations with appraisal variables, that is self-efficacy, threat, challenge and stakes, are found

Table 1
Means, standard deviations, and inter-correlations of the variables of the study

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. Prior GHQ score	1.00													
2. Exams GHQ score	0.57**	1.00												
3. Exams self-efficacy	-0.29**	-0.47**	1.00											
4. Study self-efficacy	-0.32**	-0.40**	0.60**	1.00										
5. Positive approach	-0.22**	-0.25**	0.29**	0.46**	1.00									
6. Denial/passive acceptance	-0.02	-0.07	-0.17*	-0.10	-0.07	1.00								
7. Social support	-0.02	0.12	-0.07	-0.01	0.29**	-0.04	1.00							
8. Self-isolation	0.10	0.15	-0.24**	-0.21**	-0.13	0.30**	0.08	1.00						
9. Help from God	0.06	0.11	-0.12	0.06	0.21**	0.04	0.17*	0.13	1.00					
10. Tension reduction	-0.23**	-0.32**	-0.23**	0.15	0.11	0.13	-0.03	0.02	-0.08	1.00				
11. 'Abilities' schema	0.28**	0.31**	-0.51**	-0.51**	-0.22**	0.22**	0.02	0.25**	0.08	-0.15	1.00			
12. Threat	0.32**	0.54**	-0.43**	-0.23**	-0.04	0.05	0.13	0.18**	0.27**	-0.25**	0.40**	1.00		
13. Challenge	-0.18*	-0.25**	0.35**	0.50**	0.31**	-0.09	-0.01	-0.14	0.08	0.08	-0.29**	-0.11	1.00	
14. Stakes	0.24**	0.38**	-0.47**	-0.45**	-0.19*	0.05	0.08	0.19**	0.01	-0.20**	0.40**	0.48**	-0.33**	1.00
Mean	29.95	25.95	10.12	8.61	19.04	6.26	8.91	3.49	2.49	4.84	9.88	5.57	5.01	9.10
Standard deviation	11.26	12.01	2.64	2.60	5.43	2.70	3.56	1.97	2.02	1.70	4.04	2.90	2.44	4.68

* $P < 0.01$.

** $P < 0.001$.

(Pearson $r = 0.25$ – 0.54 ; $P < 0.001$). With respect also to coping strategies, moderate correlations are identified with positive approach ($r = -0.25$; $P < 0.001$), and tension reduction ($r = -0.32$; $P < 0.001$). Between GHQ score before and after the examination period there is a Pearson $r = 0.57$, $P < 0.001$. Second, both examination and study self-efficacy expectations are positively related to positive approach ($r = 0.29$ and 0.46 , respectively; $P < 0.001$), and negatively to self-isolation ($r = -0.24$ and -0.21 , respectively; $P < 0.001$). Examination self-efficacy is also negatively related to denial/passive acceptance ($r = -0.17$; $P < 0.01$), and tension reduction ($r = -0.23$; $P < 0.001$). Self-efficacy expectations are highly related to threat, challenge and stakes ($r = -0.25$ to 0.50 ; $P < 0.001$). They are positively related to challenge and negatively to threat and stakes. Third, regarding the relationship between coping strategies and threat, challenge and stakes, we found that challenge is related positively to positive approach ($r = 0.31$; $P < 0.001$); stakes are related positively to self-isolation ($r = 0.19$; $P < 0.001$), and negatively to positive approach ($r = -0.19$; $P < 0.01$) and tension reduction ($r = -0.20$; $P < 0.001$); threat is related positively to self-isolation ($r = 0.18$; $P < 0.001$), and help from God ($r = 0.27$; $P < 0.001$), and negatively to tension reduction ($r = -0.25$; $P < 0.001$). Fourth, the ‘low examination abilities’ schema is related to almost all other variables in a low to moderate way.

In order to determine the size of the relationship between GHQ score and appraisal variables, after controlling for prior psychological symptoms and coping strategies (hypothesis (b)), we performed a forward stepwise hierarchical regression procedure of GHQ score at the examination period on prior GHQ score (entered on step 1), coping factors (entered on step 2), and threat, challenge, self-efficacy, and ‘low examination abilities’ schema (entered on step 3). The results are presented in Table 2. An overall 56% of the variance in GHQ score was explained. Prior GHQ score accounted for the 34% of the variance, and coping strategies for another 9% of the variance. An additional 13% was explained by two appraisal variables, that is, threat and examination self-efficacy.

Hypotheses (c) and (d) were examined by a covariance structural analysis, estimated by LISREL 8 (Joreskog & Sorbom, 1993). The chi-square was 22.14 (d.f. = 24, $P = 0.57$), indicating a very good fit between data and model. Goodness of fit index (GFI) = 0.99 and adjusted goodness of fit index (AGFI) = 0.96. In order to simplify the model, only positive approach, tension

Table 2
Regression of the GHQ score at the examination period on prior GHQ score, coping and appraisal variables

	β	T	R	R^2	ΔR^2	F	d.f.
Step 1			0.58	0.34	0.00	116.40**	1.228
Prior GHQ score	0.58	10.79**					
Step 2 (coping)			0.66	0.43	0.09	43.03**	4.225
Tension reduction	-0.24	-4.56**					
Social support	0.17	3.29*					
Positive approach	-0.14	-2.58*					
Step 3 (appraisal variables)			0.75	0.56	0.13	46.61**	6.223
Threat	0.27	5.10**					
Examination self-efficacy	-0.18	-3.35**					

* $P < 0.01$.

** $P < 0.001$.

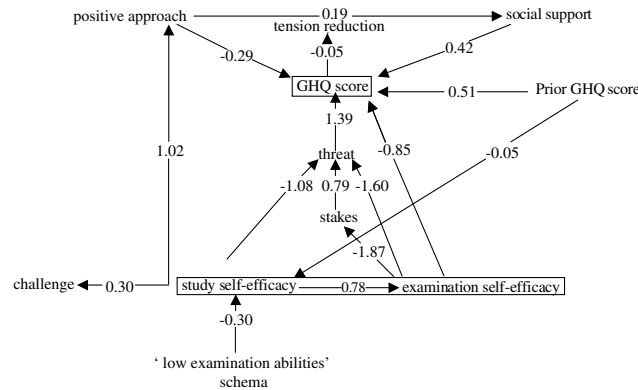


Fig. 1. Path analysis between ‘low examination abilities’ schema, self-efficacy, stakes, threat, challenge, prior GHQ score, examination GHQ score, and coping strategies, and β -coefficients.

reduction, and social support coping strategies were included. These strategies were the most important according to our previous findings. Fig. 1 provides the maximum likelihood estimates of the model. Non-significant estimates are not presented in the figure. GHQ score at the examination period was significantly and positively predicted by prior GHQ score, threat, and social support, and negatively by examination self-efficacy expectations and positive approach. Threat was negatively predicted by self-efficacy expectations and positively by stakes, while stakes were negatively predicted by examination self-efficacy. Prior GHQ score and the ‘low examination abilities’ schema predicted study self-efficacy negatively. Finally, challenge and positive approach were positively predicted by study self-efficacy, social support positively by positive approach, and tension reduction negatively by GHQ score.

4. Discussion

The present study focused on the relationships between several factors that play a significant role in the stress process. We examined the relationships between appraisal variables (self-efficacy, threat, challenge, and stakes), a relevant cognitive schema, coping strategies and psychological health during the impact of a stressful encounter, which is examinations, on a student population.

The cognitive-relational theory of stress (Lazarus, 1966, 1991, 1993; Lazarus & Folkman, 1984a, 1984b; Mechanic, 1976) emphasises the reciprocal nature of the person–environment interaction. Within this concept, of great interest are the cognitive-appraisal variables which mediate the stressor–health interaction as they determine the stressfulness of the situation, the options that a person has, and his/her resources in order to cope with it.

Data suggest that appraisal variables play an important role as they are strongly related to outcome variables (health and coping), confirming thus our first hypothesis. In general, challenge is positively related to self-efficacy and positive approach, and negatively related to GHQ scores and self-isolation. In other words, the more challenged a student reports to be by examinations, the stronger self-efficacy expectations he/she has, the less symptoms he/she reports, the more positive approach coping strategy he/she uses. On the contrary, the more threatened the student

reports he feels, the more symptom reports, weaker self-efficacy, more self-isolation and less positive approach and tension reduction strategies he uses. Self-efficacy expectations (both examination and study self-efficacy) are positively related to positive approach and tension reduction strategies, and negatively to psychological symptoms and self-isolation and denial/passive acceptance strategies.

The significance of the appraisal variables was also supported by the results of a hierarchical regression analysis. Examination self-efficacy and threat significantly contributed to the total explained variance in GHQ score, even after controlling for prior symptoms and coping strategies. This finding confirms our second hypothesis.

Furthermore, according to a path analysis an ‘appraisal sequence’ is revealed, confirming our fourth hypothesis. According to this ‘sequence’, GHQ score is predicted by prior psychological health, positive approach and social support, threat and self-efficacy. Threat is predicted by stakes and self-efficacy. Stakes are predicted by self-efficacy, which is predicted by a relevant cognitive schema.

Self-efficacy seems to be the base of this sequence (our third hypothesis), since (a) it exerts influence on psychological health both directly and indirectly, through stakes and threat, and (b) it exerts influence on positive approach, a significant coping strategy. Self-efficacy also serves as the link between inner cognitive structure (a self-schema) and the stress process, providing, therefore, an idea of how more ‘silent’ cognitive processes influence psychological well-being and functioning. These findings confirm the centrality of self-efficacy role in the stress process and especially as a part of the appraisal process. Self-efficacy plays a major role in determining behaviour and functioning, as it moderates perceived stressfulness of the situation, and, consequently, experienced emotions (i.e., threat, challenge), coping efforts, and psychological functioning and well-being.

According to the cognitive-relational theory of stress, both threat and challenge are essential parts of the appraisal process. However, data provides support only to the role of threat and not of challenge. The type of stressful encounter might be the cause of this finding, as it is possible that Greek students generally assess examinations rather as a threat than as a challenge.

With respect to the coping strategies used, three of them, namely, positive approach, tension reduction and social support, appear to be more related to health outcome. According to the correlations, the more frequent use of problem solving and positive appraisal, and the more frequent use of ways for reducing tension (such as, relaxation) are mentioned, the fewer symptoms are reported. However, path analysis revealed that only positive approach predicts psychological symptoms negatively. This finding is in accordance with other studies which also confirm that problem solving and positive appraisal are among those coping strategies that facilitate adaptation and functioning (Carver, Scheier, & Pozo, 1992; Carver, Scheier, & Weintraub, 1989; Zeidner & Saklofske, 1996). On the other hand, it was GHQ score that predicted tension reduction, and not vice versa. A possible explanation for this result might be that the more distressed students feel, the less they are able to make use of strategies that help reduce tension.

Surprisingly, social support predicted GHQ scores in a positive manner. Gottlieb (1996) supports that not all kinds of social support are helpful, depending on the nature of the stressor and the type of help offered. Asking for help from friends and fellow-students might be distressing, while exams are still in progress. What is noticeable is that the social support scale which we have used consists mostly of items referring to information and advice seeking and not to other types of

help, such as emotional support or co-working. This might be another reason for our finding. The type and/or timing of social support offered in interaction with the type of stressor might be the reason for its negative effect on psychological health.

Several limitations to this study must be mentioned. The present study refers to a particular type of stressful encounter (examinations), which concerns a specific population (university students). Furthermore, the study does not take into consideration other types of cognitive appraisal (such as harm or loss) or other significant factors (such as outcome expectancies, higher order schemata, commitments, valence of goals, personality characteristics etc.) which appear to be important in the stress process (Bandura, 1997; Cervone, 2000; Lazarus, 1991; Lazarus & Folkman, 1984a, 1984b). Finally, the Cronbach α coefficient for two of the coping subscales (i.e., self-isolation and tension reduction) was relatively low but tenable.

Nevertheless, we believe that the findings of this study are important since (a) they provide evidence for the direct relationship between psychological health and appraisal variables, (b) they confirm the centrality of role of self-efficacy expectations in the appraisal process, and (c) they picture the inner relations between appraisal factors, as well as between a cognitive schema and psychological health. The closer examination of these relationships will provide us with the opportunity to gain a better understanding of the ways that prior existing factors, stress variables, situational conditions, and current functioning and health status interact. The understanding of this interaction will help to conceive the whole person–environment relationship even more effectively.

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