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The relationship between self-efficacy and its subscales with mental health in university students

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ABSTRACT

Purpose of this study was to investigate relationship between self-efficacy and its subscales with general health compare general health in university students. Research method was descriptive correlation study. In so doing, 321university students randomly selected. Measurement devises were Goldberg's general health questionnaire and General Self-Efficacy Scale. Data analyzed by Pearson's correlation coefficient and Regression. Results showed that self-efficacy has a positive correlation with general health and social functions; and have a negative correlation with somatic symptoms, anxiety and sleep disorder, and depression symptoms.

Key words: self-efficacy, general health, university students.

INTRODUCTION

The World Health Organization defines mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community".

Wissing and Fourie [1] state that mental health has an effective role in self-acceptance, positive communication with others, self-direction, domination on environment, setting some goals for life and personal development. One of factors affecting mental health is self-efficacy. It has a valuable role in different aspects of life and health [2, 3] and main role in individuals' thinking modes, their decision-making, the quality of their encounter with problems, their depression and anxiety status and so on [4]. Individuals with high self-efficacy have ability to modify their negative mental modes [5, 6].

Researchers showed that general self-efficacy is negatively related to depression and anxiety, as two main components of mental health, and positive self-efficacy beliefs have an effective role in the treatment of mental diseases.

Results of researches [7, 8] indicated that generalized self-efficacy and problem solving orientation are related, but are not redundant with each other. Moreover, results indicated that although generalized self-efficacy is on Psychology, Counseling and Guidance an important predictor of psychological and physical functioning, problem orientation, specifically, negative problem orientation added incremental validity in predicting additional unique variance in measures of functioning [9].

Self-efficacy has been defined as the belief that one is capable of performing in a certain manner to attain a certain set of goals [10]. It is believed that our personalized ideas of self-efficacy affect our social interactions in almost

every way. Understanding how to foster the development of self-efficacy is a vitally important goal for positive psychology because it can lead to living a more productive and happy life.

Self-efficacy is domain-specific and multidimensional, and beliefs vary according to strength and robustness in the face of perturbing events, level of task challenge, and generality across wide ranges of activities.

People generally avoid tasks where their self-efficacy is low, but will engage in tasks where their self-efficacy is high. People with high self-efficacy in a task are more likely to make more of an effort, and persist longer, than those with low efficacy. The stronger the self-efficacy or mastery expectations, the more active the efforts [11]. On the other hand, low self-efficacy provides an incentive to learn more about the subject. Since Self-efficacy is developed from external experiences and self-perception and is influential in determining the outcome of many events, it is an important aspect of social cognitive theory. According to Bandura's theory, people with high self-efficacy—that is, those who believe they can perform well—are more likely to view difficult tasks as something to be mastered rather than something to be avoided. Self-efficacy represents the personal perception of external social factors [12-15].

Self-regulatory self-efficacy and academic self-efficacy have a negative correlation with moral disengagement (making excuses for bad behavior, avoiding responsibility for consequences, blaming the victim) [16]. Social Self-Efficacy has a positive correlation with prosaically behavior. On the other hand, moral disengagement and prosaically behavior have a negative relationship [17].

Self-efficacy influences the way individuals feel, think, self-motivate and behave. These beliefs are influential in four ways: cognitive, motivational, and emotional and selection processes [18]. Individuals who believe that they may control threats cannot imagine a destructive thought pattern but those who believe the reverse experience a higher anxiety provoking stimulus. They look upon with anger on many aspects of their environment as threats and cause distress for themselves and harm their level of performance [18].

Self-efficacy expectations have a positive relationship with positive attitude and stress reducing strategies and a negative relationship with psychological symptoms and self-isolation and passive emotional acceptance /avoidance strategies [19]. Self-efficacy can reduce a sense of loneliness, shame, avoidance of social risks, self-depressing, low self-esteem and the weakness of social skills and in turn, promote the mental health.

However, an important point about the relationship between self-efficacy and health is that social anxiety may have a negative effect on social self-efficacy in a socially threatening situation as well as on the sense of curiosity and feelings. Therefore, the relationship between self-efficacy and some of the variables of mental health seems to be more complicated than commonly imagined.

Therefore, the present research aims to investigate the role of self-efficacy in predicting mental disorders like anxiety, depression and so on.

MATERIALS AND METHODS

Participants

The method of this research was a correlation one. Participants were 321 students were randomly selected. GSES (Generalized Self-Efficacy Scale) and GHQ (General Health Questionnaire) were used in order to measure the variables and collect the data. The reliability questions according to Alfa Cronbach for GSES were 0.76 and 0.86, and for GHQ was 0.84.

Statistical procedures involved in analyzing questionnaires included regression analyses were conducted to assess the relationship between Self-efficacy and mental disorders. Analysis of research data was performed using SPSS.

Materials

The Generalized Self-Efficacy Scale (GSES): The GSES [20] consists of 23 items to which subjects respond on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). 17 item assess general self-efficacy and 6 item, assess specific self-efficacy. The scale has been used in many studies and its reliability (Cronbach's alpha) was reported to be .76 and .86, thus, the adequate psychometric properties of English (e.g., Sheerer & Maddux, 1982) and Farsi versions of the scale have been reported.

General health questionnaire (GHQ): The General Health Questionnaire (GHQ) is a measure of current mental health and since its development by Goldberg in the 1970s it has been extensively used in different settings and

different cultures. The questionnaire was originally developed as a 60-item instrument but at present a range of shortened versions of the questionnaire including the GHQ-30, the GHQ-28, the GHQ-20, and the GHQ-12 is available. The scale asks whether the respondent has experienced a particular symptom or behavior recently. It serves as a self-administered tool for assessment of general mental health and mental distress in four areas of depression, anxiety, somatic symptoms, and social dysfunction. GHQ-28 asks about the presence of a range of symptoms during the past month in four relevant areas. Responses are evaluated on 4-point likert scale ranging from 0 ('not at all') to 3 ('much more than usual'). The higher the score, the lower the well-being reported.

Procedure

All participants were asked to complete ***GSES*** and GHQ.

Table 1 Correlations between subscales

		Somatic sy.	anxiety and sleep disorder	social function	depression symptoms	general health	self efficacy	general self efficacy	specific self - efficacy
somatic symptoms	Pearson Correlation	1	.673**	-.236**	.446**	.807**	-.260**	-.261**	-.163**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.003
	N	321	318	320	321	317	321	321	321
anxiety and sleep disorder	Pearson Correlation	.673**	1	-.138*	.547**	.890**	-.305**	-.316**	-.163**
	Sig. (2-tailed)	.000		.014	.000	.000	.000	.000	.003
	N	318	321	320	321	317	321	321	321
social function	Pearson Correlation	-.236**	-.138*	1	-.184**	.050	.402**	.432**	.178**
	Sig. (2-tailed)	.000	.014		.001	.371	.000	.000	.001
	N	320	320	323	323	317	323	323	323
depression symptoms	Pearson Correlation	.446**	.547**	-.184**	1	.716**	-.260**	-.275**	-.127*
	Sig. (2-tailed)	.000	.000	.001		.000	.000	.000	.023
	N	321	321	323	324	317	324	324	324
general health	Pearson Correlation	.807**	.890**	.050	.716**	1	-.210**	-.213**	-.125*
	Sig. (2-tailed)	.000	.000	.371	.000		.000	.000	.026
	N	317	317	317	317	317	317	317	317
self efficacy	Pearson Correlation	-.260**	-.305**	.402**	-.260**	.210**	1	.964**	.727**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000
	N	321	321	323	324	317	324	324	324
general self efficacy	Pearson Correlation	-.261**	-.316**	.432**	-.275**	.213**	.964**	1	.517**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000
	N	321	321	323	324	317	324	324	324
specific self - efficacy	Pearson Correlation	-.163**	-.163**	.178**	-.127*	.125*	.727**	.517**	1
	Sig. (2-tailed)	.003	.003	.001	.023	.026	.000	.000	
	N	321	321	323	324	317	324	324	324

***. Correlation is significant at the 0.01 level (2-tailed).*
**. Correlation is significant at the 0.05 level (2-tailed).*

RESULTS AND DISCUSSION

Results

The results of Pearson's correlation (table 1) showed that there is a significant positive correlation between somatic symptoms with anxiety, sleep disorder (r= .673, p= .0001) depression symptoms (r= .446, p= .0001) and general health (r= .807, p= .0001) and negative correlation with social function (r= -.236, p= .0001), self-efficacy (r= -.260, p= .0001), general self-efficacy (r= -.261, p= .0001), specific self-efficacy (r= -.163, p= .0001)

Anxiety and sleep disorder have a positive correlation with depression symptoms (r= .547, p= .0001) and general health (r= .890, p= .0001) and negative correlation with social function (r= -.138, p= .01), self-efficacy (r= -.305, p= .0001), general self-efficacy (r= -.316, p= .0001), specific self-efficacy (r= -.163, p= .003).

Social function has a positive correlation with self-efficacy (r= .402, p= .0001), general self-efficacy (r= .432, p= .0001), specific self-efficacy (r= .178, p= .001) and negative correlation with somatic symptoms, anxiety, sleep disorder and depression symptoms.

Then relationship general self-efficacy, self-efficacy and specific self-efficacy were analyzed as predictor variables and general health and subscales as criterion variable in regression equation. The results of analysis of regression between somatic symptoms with general self-efficacy are presented in table 2 and 3. According to these results, the amount of observed F is significant (p< 0.0001) and 26% the variance of somatic symptoms is explained by general self-efficacy.

Table 2. Results of the regression analysis (model summary)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.261[a]	.068	.065	4.11462
a. Predictors: (Constant), general self efficacy				

Table 3. Results of ANOVA analysis

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	393.823	1	393.823	23.262	.000[a]
	Residual	5400.706	319	16.930		
	Total	5794.530	320			
a. Predictors: (Constant), general self efficacy *b. Dependent Variable: somatic symptoms*						

The results of analysis of regression between anxiety and sleep disorder with general self-efficacy are presented in table 4 and 5. According to these results, the amount of observed F is significant (p< 0.0001) and 31.6% the variance of anxiety and sleep disorder is explained by general self-efficacy.

Table 4. Results of the regression analysis (model summary)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.316[a]	.100	.097	4.60096
a. Predictors: (Constant), general self efficacy				

Table 5. Results of ANOVA analysis

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	749.746	1	749.746	35.417	.000[a]
	Residual	6752.871	319	21.169		
	Total	7502.617	320			
a. Predictors: (Constant), general self efficacy *b. Dependent Variable: anxiety and sleep disorder*						

The results of analysis of regression between social functions with general self-efficacy are presented in table 6 and 7. According to these results, the amount of observed F is significant (p< 0.0001) and 43.2% the variance of social functions is explained by general self-efficacy.

Table 6. Results of the regression analysis (model summary)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.432[a]	.186	.184	2.98189
a. Predictors: (Constant), general self efficacy				

The results of analysis of regression between depression symptoms with general self-efficacy are presented in table 8 and 9. According to these results, the amount of observed F is significant (p< 0.0001) and 27.5% the variance of depression symptoms is explained by general self-efficacy.

Table 7. Results of ANOVA analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	653.968	1	653.968	73.549	.000[a]
	Residual	2854.218	321	8.892		
	Total	3508.186	322			

a. Predictors: (Constant), general self efficacy
b. Dependent Variable: social functions

Table 8. Results of the regression analysis (model summary)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.275[a]	.076	.073	3.47385

a. Predictors: (Constant), general self efficacy

Table 9. Results of ANOVA analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	317.654	1	317.654	26.323	.000[a]
	Residual	3885.788	322	12.068		
	Total	4203.441	323			

a. Predictors: (Constant), general self efficacy
b. Dependent Variable: depression symptoms

The results of analysis of regression between general healths with general self-efficacy are presented in table 10 and 11. According to these results, the amount of observed F is significant (p< 0.0001) and 21.3% the variance of general health is explained by general self-efficacy.

Table 10. Results of the regression analysis (model summary)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.213[a]	.045	.042	10.28025

a. Predictors: (Constant), general self efficacy

Table 11. Results of ANOVA analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1576.766	1	1576.766	14.920	.000[a]
	Residual	33290.306	315	105.684		
	Total	34867.073	316			

a. Predictors: (Constant), general self efficacy
b. Dependent Variable: general health

DISCUSSION

The present study was conducted by the aim of comparing self-efficacy and its subscales with general health in university students. On the basis of this research, findings showed that subscales general self-efficacy could predict 21.6% variance of somatic symptoms, 31.6% anxiety and sleep disorders, 43.2% social functions, 27.5% depression symptoms and finally, 21.3% general health.

The results of this research conform with [5, 6, 15 and 16]. There Results revealed that self-efficacy and problem solving were the direct and indirect predictors of mental health, and 59% of variance of students' mental health can be predicted by their self-efficacy and meta-cognition.

Also researches [5, 6, 11 and17] showed that high self-efficacy, correlates with lower mental stress, higher adaptation and higher interest to health and care programs. Thus, high self-efficacy could power impact on general health.

Research showed that higher self-efficacy correlated with lower somatic symptoms, anxiety and sleeps disorder and depression; and could predict general health. Thus, in order to decrease probability of mental health should reinforce self-efficacy in any way. Low self-efficacy may lead to anxiety and depression. Self-efficacy has a positive relationship with mental health.

According to Bandura's theory, people with high self-efficacy—that is, those who believe they can perform well—are more likely to view difficult tasks as something to be mastered rather than something to be avoided. People with high self-efficacy in a task are more likely to make more of an effort, and persist longer, than those with low efficacy. The stronger the self-efficacy or mastery expectations, the more active the efforts. People with high self-efficacy often take a wider overview of a task in order to take the best route of action. Self-efficacy also affects how people respond to failure.

Health behaviors such as non-smoking, physical exercise, dieting, condom use, dental hygiene, seat belt use, or breast self-examination are, among others, dependent on one's level of perceived self-efficacy. Self-efficacy influences the effort one puts forth to change risk behavior and the persistence to continue striving despite barriers and setbacks that may undermine motivation.

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