

A Study of the Level of Self-Efficacy, Depression and Anxiety Between Accounting and Management Students: Iranian Evidence

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Abstract: The universities should provide numerous programs to assist students in successfully completing their degree and also help them to increase their self-efficacy. That's why the universities should be attended more attention to the physical, educational, emotional, rational, motivational and psychological aspects on the own students. The results of current study shows that management students in Iran have more depression, anxiety and stress and lower level of self-efficacy rather than accounting students.

Key words: Self-efficacy • Depression • Anxiety • Stress and Iran

INTRODUCTION

In everyday life, self-efficacy leads us to set challenging goals and to persist in the face of difficulties. More than a hundred studies show that, self-efficacy predicts worker productivity. When problems arise, a strong sense of self-efficacy leads people to keep calm and seek solutions rather than ruminate on their inadequacy. Striving plus persistence equal accomplishment and with accomplishment, self-confidence grows. Self-efficacy, like self-esteem, grows with hard-won achievements.

Self-efficacy is the concept of believing in one's own ability to affect change by modifying behavior and actions. The applications of self-efficacy theory have been used to explain and predict human characteristics in different domains including health behavior, personal performance and an individual's cognitive ability. Jerusalem and Schwarzer [1] describe general self-efficacy beliefs as convictions about one's personal resources to meet demands in the environment. A person with positive general self-efficacy has a sense of having the personal resources to buffer against stressful experiences. However, a person characterized by general low level of self-efficacy is prone to self-doubt and thoughts of being unable to meet life's stressful demands.

There are four key sources of efficacy: performance accomplishments, vicarious experience, verbal persuasion

and physiological state [2-3]. Performance accomplishments provide the major source of efficacy based on individuals' mastery experiences, which have a significant impact on individuals' perception and cognition. A person who has a successful experience will represent a high level of efficacy. For instance, if a student can hit a ball once, he or she has a strong confidence that he or she can do it again. On the other hand, a person who has an unsuccessful experience will show a low level of efficacy. When students receive a new assignment, they will offer a similar performance based on their efficacy enhanced by the mastery experience [2].

The second source of efficacy information is vicarious experience. The concept of vicarious experience indicates that people will increase their efficacy and expectation by seeing or observing others performing successfully. More specifically, Bandura [3] stated that "people persuade themselves that if others can do, they should be able to achieve at least some improvement in performance" (p. 399). Even if they do not have the real experiences, people presume their own capability to perform will result in the same outcome as others. People model others' behavior as their vicarious experience. Research has shown that vicarious experience produces a weaker source of efficacy, especially when people compare themselves to a different age group.

In today's society, people commonly use verbal persuasion to support and give confidence to others, enabling them to believe in their ability to accomplish what they seek. This source is frequently used to boost efficacy. Individuals may depend on others' expectations to increase efficacy and encourage themselves to try hard to perform successfully. A positive persuasion will promote people's efficacy to believe in their ability to perform an action. Verbal persuasion includes words, social persuasion, feedback from others and self-conversation. The fourth source of efficacy information is physiological state. Bandura [3] indicated that most people judge or consider their ability to perform an action based on cognitive evaluation. For instance, when a person perceives stress, fear, pain and fatigue, the body will appear threatened and vulnerable—signs of doubt in the capability to perform an assignment. People identify these physical symptoms as harmful signs and perceive a need to avoid performing. The physiological state of efficacy information provides more significant evidence in sports and physical activity behavior than other activities.

Bandura [2] proposes that self-efficacy beliefs regulate emotional states, including depression, in several ways: (1) Individuals who believe that they can manage threats or stressful situations are less distressed by them. (2) Individuals with high self-efficacy may lower their stress and anxiety by behaving in ways that make the environment less threatening. (3) Individuals with high coping capacity may have better control over stressful thoughts. They are able to relax, divert their attention, calm themselves and seek support from others, which may make stress and threats easier to tolerate.

Self-Efficacy and Cognitive Models of Depression: Although Bandura's [2] self-efficacy model of depression is generally consistent with cognitive models of depression, there are two important differences between the models. First, the models differ in conceptualizations of an individual's role in adapting to circumstance. Second, the models differ in specifications of the self construct that is negatively affected by depression. To elaborate, in both Bandura's self-efficacy model and cognitive models of depression such as the helplessness/hopelessness model [4-5] and Beck's cognitive model [6], individuals are judged to be cognitively vulnerable when they are known to hold a pessimistic attribution style or dysfunctional attitudes about themselves and their environment. When such

individuals encounter a negative life event such as school failure, they are at risk for making negative inferences that will lead them to develop feelings of hopelessness and depression. These individuals may be protected from developing such negative affective outcomes, however, by factors such as social support. Within cognitive models of depression, a factor such as social support is described as a protective factor which serves to inhibit the individual's reaction to stress and to protect their sense of self esteem. In contrast, within the self efficacy model of depression, such a factor is seen not just as a buffer (stress protection), but as an enabling factor (an opportunity for agency) which can serve in a proactive manner to facilitate the individual's adaptation to the stressor. Bandura contends that individuals who proactively recruit social support are both protected and enabled and as a result, are likely to develop positive beliefs in their efficacy to exercise control over the stressful events or circumstances that are affecting their lives. Bandura has described self-efficacy beliefs as the foundation of human agency [2] and has stated that: "Unless people believe that they can produce desired results by their actions, they have little incentive to act or to persevere in the face of difficulties" [7]. Interestingly, exploratory research [8] has indicated that self-efficacy has greater explanatory power and predictive capability for achievement outcomes and behavior than either self-esteem, which Harter [9] defines as an individual's global feelings of self-worth, or self-concept as domain specific self-evaluations. These preliminary findings suggest further research is needed on the relationship between students' beliefs about their capabilities and their affective functioning. Accordingly, this topic was addressed in the present study.

The Contribution of Self-Efficacy to Depression: To date, empirical research on the contribution of perceived self-efficacy to anxiety and depression has largely focused on adults [2-10]. Nonetheless, there is a small but growing corpus of studies concerned with the functioning of children and adolescents. Bandura and his associates [7] tested the contribution of perceived self-efficacy to depression in a longitudinal study with a large sample of children. They found that academic and social self-efficacy contributed to concurrent and subsequent depression, both directly and through other influences such as academic achievement and behavior. Two studies, which focused upon the functioning of adolescents [11-12], also found that academic and social self-efficacy, were negatively correlated with depression.

Finally, a study of adolescents that focused on the contribution of social self-efficacy alone yielded complementary findings [13]. Recent study completed by Muris [10] who examined the contribution of social and academic self-efficacy to symptoms of anxiety as well as depression in an adolescent sample. The focus on both symptoms is important for theoretical and practical reasons. First, the self-efficacy model of depression espoused [7] specifies that both symptoms could be expected. Second, whether defined as symptoms or disorders, these distressing affective outcomes are highly comorbid [14]. Interestingly, Muris's findings suggest that academic self-efficacy plays a more important role in the development of depressive symptoms while social self-efficacy is more salient to symptoms of anxiety. While the need for more research was acknowledged by the author, this finding has important implications for both diagnosis and intervention. For these reasons, self reported symptoms of both anxiety and depression were assessed in the present study.

The Contribution of Self-Efficacy to Anxiety: Self-efficacy and anxiety seem intuitively linked. People who feel ineffective in dealing with life's inevitable problems and challenges cannot help but be anxious at the thought of how they will manage these challenges when they arise. This is not to say that those with high levels of self-efficacy do not feel anxious, but rather that people with higher self-efficacy may handle anxiety differently than those with low self-efficacy. According to Bandura [2-3] anxiety has an inverse correlation with an individual's perceived level of self efficacy. A study of cardiac patients whose mean age was 64 attempted to clarify the nature of the relationship between feelings of control (self-efficacy) and depression and anxiety. The researchers concluded that "feelings of control reduce anxiety and depression, as opposed to anxiety and depression leading to low perceptions of control" [15].

The Contribution of Self-Efficacy to Stress: In contrast to the biological response definition of stress, Lazarus and Folkman [16] proposed that an individual's perception of an event was a direct result of their cognitive appraisal of the event. Two cognitive processes, appraisal and coping, are important to the person/ environment transaction.

From this point of view, cognitive appraisal is a process of either consciously or unconsciously evaluating one's performance whilst interacting with the environment [17]. According to Lazarus and Folkman [16],

cognitive appraisal is the evaluate process used by the individual to determine why and to what extent a particular transaction or series of person-environment transactions results in stress.

Simultaneously, cognitive appraisal is also a process through which an individual evaluates and manages their environment and their emotional and behavioral responses. The perceived demands and pressures produced within these ongoing interactions may result in varying levels of stress for many individuals. The individual's response to such perceived stresses can also vary greatly. For example, one person may respond with anger, another with anxiety and still another feel challenged to engage and interact in a more constructive manner.

Lazarus [17] proposed that increasing levels of dysfunctional stress occur when an individual perceives that they do not have the necessary interpersonal and/or physical resources to successfully negotiate or cope with the demands or pressures emanating from the environment. From Lazarus's [17] perspective, cognitive appraisal of the situation is an important factor within the stress situation. Lazarus and Folkman [16] considered cognitive appraisal essential for understanding stress for two reasons: to understand variation factors among individuals under an event and the factors affecting this interaction and secondly to distinguish between dangerous situations in which individuals survive and flourish. Before proceeding, some appraisal-related terminologies in the cognitive appraisal of stress should be clarified.

Lazarus [17] described three types of cognitive appraisals - primary, secondary and reappraisal - that individuals use to evaluate their situation. Primary appraisal is an evaluation of what is at stake. Primary appraisal describes the way people evaluate a potentially stressful situation relation to their own goal commitments, values, beliefs about self and the world and situational intentions. Goal commitment has been found to be a stronger factor influence on action than values. One can have values without acting in their interest, but the term goal commitment refers to the fact that an individual will attempt to attain a goal. If there is no goal commitment, a stress reaction will not occur because there is nothing of adaptational importance to interrupt the individual's routine. In contrast, if an individual perceives a situation as harmful, threatening or challenging, stress and its related emotions will occur. Lazarus [17] concluded that as a result, when the condition of stress is occurring, an individual would make an appraisal.

In addition, Lazarus and Folkman [16] have distinguished three kinds of primary appraisal namely: irrelevant, benign-positive and stressful. Irrelevant appraisal is the transaction that carries no implication for an individual's well-being. In this kind of appraisal, individuals have nothing to lose or gain. Being-positive appraisal occurs when the outcome of an encounter is perceived as a positive or pleasurable emotion such as joy, love, happiness, or peacefulness. Stress appraisals include harm/loss, threat and challenge. Damage to an individual may be sustained in a situation of harm/loss, such as in debilitating injury or illness, recognition of social esteem damage, or loss of a loved or valued person. Threats to central and extensive goal commitment are the most damaging life events for individuals. Threat and challenge focuses on the future: those individuals have uncertainty about what will happen. According to Lazarus [17], threat and challenge can occur in the same situation or in a continuing relationship and the more individuals are confident in overcoming obstacles and dangers, the more likely they are to feel challenged rather than threatened. Threat appraisal is different from harm/loss appraisal as it permits anticipatory coping and threat concerns harm/losses that have not yet taken place [16]. Threat is characterized by negative emotions such as fear, anxiety and anger. Furthermore, threat has an important inference for adaptation. Challenge appraisal is different from threat in that it is characterized by pleasurable emotions such as eagerness, excitement and exhilaration. Moreover, challenge has important implications for adaptation. Lazarus and Folkman [16] pointed out that challenged individuals are more likely to have better morale as they feel confident about demanding encounters. Threat or challenge varies greatly according to situational demands, constraints and opportunities, which individuals are able to recognize. Secondary appraisal refers to the cognitive-evaluative process in which individuals evaluate their resources for dealing with a stressful person-environment. Secondary appraisal also includes an evaluation of the likelihood that a given coping option will result in the satisfaction of that desire, as well as the likelihood that the individual can apply effective strategies [16]. At this point, Magill [18] indicated that individuals would determine their ability to control or cope with the new situation by examining potential options for dealing with an event.

Research Methodology

Hypotheses

Main Hypothesis: There is a significant difference between the management and accounting students in self-efficacy, depression, anxiety and stress.

Sub-Hypothesis of the Study as Follows:

- There is a significant difference between the self-efficacy of management and accounting students.
- There is a significant difference between the depression of management and accounting students.
- There is a significant difference between the anxiety of management and accounting students.
- There is a significant difference between the stress of management and accounting students.

Design of the Study: The present study was designed to clarify the differences between the management and accounting students in Iranian state universities in self-efficacy, depression, anxiety and stress by comparing the mean of the two groups. Since there is no existing research in this area "comparing the self-efficacy, depression, anxiety and stress of management and accounting students in Iran. Another purpose of the investigation was to found out the differences between the male and female students in self-efficacy, depression, anxiety and stress by comparing the mean of two independent groups. In particular, the present multi-faceted study has focused upon the links between self-efficacy, depression, anxiety and stress. The study investigated how self-efficacy might be linked to depression, anxiety and stress.

Participants: In the present study the sample was selected by using purposive sampling method. The participants in current study were post-graduate and Ph.D. students, 80 management and 80 accounting students at Iranian state universities in Tehran capital of Iran. The age of participants ranged from 20 to 53 years, Mean age is 26.65.

Management participants were 80 students of which 40 of them were female and remaining 40 were male. The age of the Indian participants ranges from 20 to 29 years, mean age is 22.66. Out of 80, 40 were post-graduates and were Ph.D. students.

Table 1: Frequency table of participants

Variable	Item	Frequency	Percent
Educational Filed	Management	80	50.00
	Accounting	80	50.00
	Total	160	100.00
Gender	Male	50	50.00
	Female	50	50.00
Level of the tudys	M.A	50	50.00
	PhD	50	50.00

Accounting participants were 80 students, of which 40 were male and 40 were female. The age ranges from 22 to 53 years mean age is 30.63, of 80, 40 were postgraduates and 40 were Ph.D. students. Table 1 illustrates general information of the participants.

Instruments

General Self-Efficacy Scale (GSE): Belief in personal self-efficacy was measured by GSE. GSE developed by Mathias Jerusalem and Rolf Schwarzer [1]. The originally was developed by Mathias Jerusalem and Rolf Schwarzer and later revised and developed to 26 other languages by various co-authors. The scale is available in 27 languages at <http://www.healthpsych.de>.

They construct of general self-efficacy reflects and optimistic self believe. This believes that one can perform a novel or difficult tasks or cope with diversity in various dimensions of human functioning. Perceive self-efficacy facilitates goal setting, effort investment, persistence in the face of barriers as a positive resistance resource factors. 10 items are designed to the top of the constructs, each items refers to successful copying and implies and internal stable attribution of success. Perceived the self-efficacy operative construct i.e., it is related to subsequent behavior and therefore, is relevant for clinical practice and behaviors change. The reliability of sample ranges from 23 nations, Cranach's range from 76 to 90 with the majority in the high 80s. The scale is uni-dimensional. Therefore, the researcher find out the instrument satisfactory is reliable. Validity is documented in numerous correlation studies where positive co-efficiencies were found with favorable emotion, dispositional optimism and work satisfaction. Negative co-efficient were founded with depression, anxiety stress. The rating of scale comes under 4 options, namely: 1, not at all true, 2. hardly true, 3. moderately true and 4 exactly true. According to the authors the scale is adequately valid.

Depression Anxiety Stress Scale (DASS-21): The short version of the Depression Anxiety Stress Scale (DASS-21), developed by Lovibond and Lovinbond [19], it is consists of 21-item self-report measure used to assess depression, anxiety and stress. Items on the DASS are rated on 4 point Likert-type, ranging from 0 (Did not apply to me at all) to 3 (Applied to me very much, or most of the time). Responses to each scale item were summed to produce a total score for that scale. The higher the scores on each subscale indicate more depression, anxiety and stress. DASS has undergone extensive evaluation by the authors and other research groups [20, 21, 22]. The DASS has been found to be a reliable and valid method for assessing client changes in depressive mood and anxiety [20, 22, 23]. Sahebi *et al.* [24] have translated the DASS scale in to Persian and reported that the DASS has reliable and valid scale for assessing client changes in depressive mood, anxiety and stress. The DASS21 used in this study can be downloaded from: <http://www2psy.unsw.edu.au/groups/dass/>.

Procedure: The instrument was included two questionnaires which one of them was general self-efficacy with 10 items and another one was DAS questionnaire with 42 items, along with the instruction and general information. The instrument distributed individually to the students in their departments which the participants informed that feeling out the questionnaire was voluntary and the information would be confidential, if some one has any doubts were asked to clarify their doubts. The sufficient time was given to the participants to fill up the questionnaire and collected them back. The average time taken to answer both questionnaires is approximately 30 minutes. The data collection was done during the month of March 2009.

Statistical Analysis: Data was entered on a personal computer using and as statistical software. The data file was inspected visually and statistically (SPSS frequencies) for input errors and missing data. The data was analyzed both graphically and statistically. To answer the research hypotheses posed in the present study various analytical methodologies, descriptive statistics, T- test.

Regarding to the main hypothesis that is to compare the self efficacy, depression, anxiety and stress of management and accounting students for which researcher used the independent T-test to calculate the Mean level of self-efficacy, depression, anxiety and stress and also T values.

Table 2: Results of first sub-hypothesis

Efficacy- Self	Professional Traits	Respondents	Samples Statistics		Paired Samples Test		
			Mean	SD	F.D	Test	Sig.*
	Management	80	29.26	5.67	158	4.71-	0.000
	Accounting	80	4.85	0.54			

Table 3: Results of second sub-hypothesis

Depression	Professional Traits	Respondents	Samples Statistics		Paired Samples Test		
			Mean	SD	F.D	Test	Sig.*
	Management	80	13.80	8.92	158	4.61	0.000
	Accounting	80	7.60	8.06			

Table 4: Results of third sub-hypothesis

Anxiety	Professional Traits	Respondents	Paired Samples Statistics		Paired Samples Test		
			Mean	SD	F.D	T-Test	Sig.*
	Management	80	14.47	8.08	158	6.25	0.000
	Accounting	80	7.03	6.90			

Table 5: Results of fourth sub-hypothesis

Stress	Professional Traits	Respondents	Paired Samples Statistics		Paired Samples Test		
			Mean	SD	F.D	Test	Sig.*
	Management	80	16.178	8.50	158	4.66	0.000
	Accounting	80	10.210	7.69			

Alpha Coefficients: Internal consistency coefficient were calculated for all study measures and were at the acceptable level or above, the reliability "internal consistency" of self efficacy questionnaire is 0.94 with the 10 items where as the reliability for DASS questionnaire is 0.84 with 42 items.

Testing of Hypotheses

Main Hypotheses: There are significant differences between management and accounting students in self-efficacy, depression, anxiety and stress.

Sub-hypothesis (1) there is a significant difference between the self-efficacy of management and accounting students.

Table 2 is indicating mean, standard deviation and T value of management and accounting students in self-efficacy. The total number of students is 160 among them 80 were management and 80 accounting students respectively. The mean of management students is 29.26, accounting students is 30.20 respectively. Standard deviation of management students is 5.67, accounting students is 4.85 respectively. The mean and standard deviation indicates that the self-efficacy of accounting students is higher than management students, which the graph also shows this fact. For conform the differences T value is calculated and the optioned T value

is -4.71 which indicates the differences are highly significant. Therefore, the formulated hypothesis accepted.

Sub-hypothesis (2) there is a significant difference between the depression of management and accounting students.

Table 3 is indicating mean, standard deviation and T value of management and accounting students in depression. The mean of management students is 13.80, accounting students is 7.60 respectively. Standard deviations of management students stood at 8.92, accounting students stood at 8.06 respectively. The mean and standard deviation indicates that the depression of accounting students is lower than management students, which the graph also shows this fact. For conform the differences T value is calculated and the optioned T value is 4.610 which indicates the differences are highly significant. Therefore, the formulated hypothesis accepted.

Sub-hypothesis (3) there is a significant difference between the management and accounting students in anxiety.

Table 4 is indicating mean, standard deviation and T value of management and accounting students in anxiety. The mean of management students is 14.47, accounting students is 7.03 respectively.

Table 6: Mean depression, anxiety and stress scores of management and accounting students with different levels of self-efficacy and results of Multi-variant analysis

Item	Self efficacy levels	Depression		Anxiety		Stress	
		Mean	S.D	Mean	S.D	Mean	S.D
Management	Low	18.65	8.25	18.41	7.61	19.70	7.53
	Medium	11.61	8.13	12.48	7.73	15.74	9.10
	High	7.35	5.52	9.50	5.62	10.20	5.94
	Total	13.80	8.93	14.48	8.08	16.19	8.50
Accounting	Low	12.25	7.29	12.00	8.49	14.75	7.07
	Medium	8.24	7.73	8.06	7.17	11.52	7.62
	High	5.40	8.03	4.37	4.70	7.43	7.05
	Total	7.60	8.06	7.04	6.91	10.21	7.69
Total	Low	17.08	8.42	16.84	8.22	18.49	7.66
	Medium	9.63	8.00	9.88	7.66	13.25	8.45
	High	6.11	7.23	6.24	5.59	8.44	6.75
	Total	10.70	9.03	10.76	8.37	13.20	8.62
F (Nationality)		F=8.77; P=.004		F=20.752; P=.000		F=9.690; P=.002	
F (Self efficacy)		F=14.65; P=.000		F=15.51; P=.000		F=13.87; P=.000	
Interaction(Nationality x self-efficacy)		F=0.89; P=.412		F=0.23; P=.794		F=0.25; P=.782	

Standard deviation of management students is 8.08, accounting students is 6.90 respectively. The mean and standard deviation indicates that the anxiety of accounting students is lower than management students. For conform the differences T value is calculated and the optioned T value is 6.25 which indicates the differences are highly significant. Therefore, the formulated hypothesis accepted.

Sub-hypothesis (4) there is a significant difference between the stress of management and accounting students.

Table 5 is indicating mean, standard deviation and T value of management and accounting students in stress. The mean of management students is 16.18, accounting is 10.21 respectively. Standard deviation of management students is 8.50, accounting students is 7.69 respectively. The mean and standard deviation indicates that the stress of accounting is lower than management students. For conform the differences T value is calculated and the optioned T value is 4.66 which indicates the differences are highly significant. Therefore, the formulated hypothesis accepted.

CONCLUSION AND REMARKS

Regarding to the research question; are there any differences between the management and accounting students in self-efficacy, depression, anxiety and stress?

Self-Efficacy: The results about the self-efficacy indicate that; there is a significant difference between the management and accounting students in self-efficacy. By comparing the Mean and Standard Deviation of self-efficacy of management and accounting students, we found that the self-efficacy of accounting students is higher than management students.

Self-Efficacy and Depression: In general, self-efficacy is thought to be negatively associated with depression, with regard to examine the correlation, coefficient between the self-efficacy and depression results indicated that negatively relationship between the self-efficacy and depression. According to Bandura [7] affective responses to the lower self-efficacy through the cognitive and motivational then emerge as a manifest depression. With in this research the researcher got the same results. Self-efficacy and anxiety: In essence, people with the high anxiety can be come an obstacles to the own success. They convince themselves that they are unable to accomplish the tasks at hand. Hence researches have argued that, self-efficacy building technique should be used to alleviate anxiety as an increasing self-efficacy reduces anxiety and improved performance. The results of this study shows that the higher level of self-efficacy will reduced the level of anxiety. Self-efficacy and stress: Stress can be a symptom of all disease; some degree of the stress may be helpful for person to face with the new challenges but the high degree of the stress is obstacle

to individual to own well being. The results of this study show that high level of self-efficacy negatively correlated with stress.

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