

# An investigation on the relationship between perfectionism beliefs, self-efficacy, and test anxiety with self-handicapping behaviors

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## Abstract

**Introduction:** The present study sought to determine the relationship between perfectionism (positive or negative), self-efficacy, and test anxiety with self-handicapping behaviors.

**Method:** The research method was a descriptive and correlational study. For this study, 428 students were chosen from different high schools in Shiraz as the participants, using random cluster sampling. The Perfectionism Questionnaire (developed by Terry-short), the scales of test anxiety and self-efficacy from Motivational Strategies Questionnaire (developed by *Pintrich* and *De Groot*) and the Self-handicapping Questionnaire (developed by *Jones* and *Rhodewalt*) were administered to them. In order to analyze data, the correlation coefficient and multiple regression analysis were used.

**Results:** There was a positive correlation between test-anxiety, negative perfectionism and self-handicapping. However, the correlation between self- self-efficacy, positive perfectionism and self-handicapping was found to be negative but significant. Regression analysis showed that 29% of the variance of self-handicap could be accounted with the four predictor variables.

**Conclusion:** The relationship between self-handicapping and such characteristics as test anxiety, self-efficacy, and perfectionism is complicated. Anxious people, due to experiencing negative emotions or fear of negative evaluation, people with low self-efficacy, due to lack of self-belief and perfectionists, due to fear of failure are usually more prone to self-handicapping.

**Keywords:** Self-handicapping Behaviors, Perfectionism Beliefs, Self-efficacy, Test Anxiety

## Introduction

Self-handicapping refers to the creation of upheavals or disadvantages that put optimal performance of a task at risk [1]. Self-handicapping consists of a wide variety of such behaviors as procrastination, substance use, over committing, lack of effort, and not using the opportunity to practice [2, 3]. In nonclinical populations, self-handicapping has been related to a multitude of negative outcomes such as higher levels of anxiety and depression, and poor academic achievement [4-6]. Concerns about others' perceptions of a person's competence, as well as self-doubt, often lead to self-handicapping, which, in turn, enables the individual to attribute failure to external factors and protect his/her self-worth by obscuring the relationship between competence and performance [7, 8].

Usually, self-handicapping people try to design working situations in such a way that if their performance is poor, they blame the situation as the cause of poor performance rather than their own inability. Thus, they can cover up their inability and worthiness [9, 10].

Thus, self-handicapping behaviors have been viewed as effective self-protecting strategies, enabling an individual to both preserve a positive self-image [11]. Although handicapping may support self-esteem for a limited period of time by providing a plausible

justification for poor performance [12], chronic self-handicapping is essentially a maladaptive strategy. This characterization includes task-avoidance, failure expectations, excuses, and external attributions that over time has significant negative impacts on self-concept [13].

Perfectionism refers to the inclination to set extremely high standards of performance, combined with selective attention to and overgeneralisation of failure, stringent self-evaluations, and all or none thinking, where only total success or total failure exists as outcomes [14, 15].

The previous definitions considered perfectionism as a one-dimensional construct [16]. However, new theories consider the nature of perfectionism as a multidimensional construct. Some have defined perfectionism in positive and negative dimensions [17] while others have defined it in terms of adaptive (positive) and maladaptive (negative) components [18]. Adaptive perfectionism is linked to a realistic effort for high standards without psychological maladjustment or distress, whereas maladaptive or negative perfectionism is generally associated with unhealthy evaluative concerns, frequent doubts about actions, and preoccupation with avoiding mistakes [19]. Not surprisingly, individuals demonstrating high levels of maladaptive perfectionism are found to be more likely to be involved in self-handicapping behaviors [20]. Some of the research findings suggest that there is a lot of overlap between perfectionism and self-handicapping features. In other words, perfectionists are interested in accomplishing a task and if they are in a situation in which they cannot do so, and can predict failure, in order to avoid negative judgments, they resort to the handicapping strategy [21, 22]. Therefore, their efforts are in line with supporting their self-worth and their self-esteem [23].

Self-efficacy is one of the strongest predictors of performance in various areas such as education, sports, jobs and trade. Bandura argues that self-efficacy is highly effective in motivation, expectations of future outcomes, affective states and, consequently, ability to perform a set of tasks or activities [23, 24]. According to Bandura, self-efficacy plays an important role in the psychological adjustment, mental health problems, physical health as well as self-guiding strategies [25]. Bandura suggested that given adequate levels of skills and motivation, self-efficacy could exert a positive influence on task initiation and persistence, whereas low self-efficacy could result in task avoidance, disengagement, and other self-handicapping behaviors. There is credible research evidence showing an inverse relationship between self-efficacy and self-handicapping [26-33] and that college students with higher levels of self-efficacy for social or everyday tasks report less frequent self-handicapping behaviors including procrastination [34, 35].

Self-handicapping has cognitive and behavioral components. This is also true about test anxiety [36]. The cognitive component of test anxiety which is a worry component refers to irrational beliefs, which are indeed the conscious attention of an individual to his or her performance. The emotional component of test anxiety

pertains to real emotional arousal that people experience during the test and is characterized by physical symptoms and stress. Overall, the worry component is a cognitive activity unrelated to task, involving significant concerns about performance, the consequences of the failure in the exam, thoughts unrelated to the exam, thoughts related to one's belittlement and evaluation of one's ability as compared to others. In addition, the emotionality aspect refers to the self-perceived emotional arousal, autonomous nervous reactions and the physiological responses such as heart palpitations, stomach disorders, crying, headache, shaking and anger [37]. Its behavioral component includes various coping mechanisms that people use to cope with anxiety and the cognitive and behavioral outcomes related to task such as thinking which is related to a particular task, cognition, attention or actual performance [36]. Smith, Snyder and Mitchell emphasize test anxiety as a self-handicapping strategy. Their findings showed that that symptoms of test anxiety may serve as a self-protective function [38]. In a study in regards to the role of self-concept clarity and student learning strategies conducted by Thomas and Gadbois [39], results revealed that self-handicapping has a significant and positive correlation with superficial learning and test anxiety.

In most theories, it is reasoned that psychological symptoms or maladaptive behavior can have positive functions or can serve as sources of distress. Even if behavioral theorists interpret the role of symptomatic behavior in terms of reinforcement contingencies or secondary gains, others argue that such symptoms and maladaptive behavior could act as strategies through which individuals maintain their sense of self-esteem and competency. Adler provided a complete explanation of the strategic use of psychological symptoms. He held that individuals make use of their symptoms as devices to guard a tenuous sense of worth [38]. It seems that self-handicapping correlates with high levels of anxiety and low levels of self-confidence. In addition, in some studies, a negative correlation has been observed between manifest anxiety and social anxiety with self-esteem [40-42]. In sport contexts, trait competitive anxiety has been found to be positively correlating with situational manifestations of self-handicapping [43-45].

Given the discussion so far, personality and cognitive traits of perfectionism, self-efficacy, and test anxiety are both conceptually and empirically identified as the most important factors contributing to self-handicapping. However, the investigation of these constructs in a coherent framework has not yet been studied. Therefore, the main objective of the current study was to investigate the relationship between self-efficacy, perfectionism and test anxiety.

## Method

The present study was applied in terms of its objectives and in terms of the research design and it was descriptive and correlational. The population was comprised of all the high school students in the city of Shiraz in the school year of 2014-2015. To this end, a sample of 428 students was

chosen through random cluster sampling out of different high schools in Shiraz. In order to do so, among the four educational districts, 8 high schools were randomly chosen. Out of each high school, 3 classes (one class from each grade) were randomly chosen. In order to gather the data, we made use of three questionnaires, namely the Perfectionism Questionnaire by Terry short, the Scales of Text Anxiety and Self-Efficacy from *Pintrich* and *De Groot* Questionnaire, and Self-Handicapping Questionnaire by *Jones* and *Rhodewalt*.

**Perfectionism Scale:** The positive and negative perfectionism scale [17] is a multifaceted scale consisting of two subscales which consists of 40 items. Among these items, 20 of them measure positive perfectionism, and 20 measure negative perfectionism. The responses having a 5-point Likert Scale ranged from 1-5. The validity index was reported to be acceptable [46]. An acceptable index of internal consistency in the range of 0.83 to 0.88 was reported for this scale [47]. In the current study, the Cronbach Alpha Coefficient for the whole scale was 0.82 and for the negative and positive dimensions, it was 0.88 and 0.76, respectively.

**Self-Handicapping Scale:** In order to measure academic self-handicapping, we made use of the Self-Handicapping Scale developed by *Jones* and *Rhodewalt* [48]. This scale consists of 25 items and has good validity index for the data collected from different samples. This scale is arranged on a 6-point Likert Scale ranging from completely disagree (0) to completely agree (5). The validity of the scale was confirmed through factor analysis. The reliability of the measure through test-retest method was 0.60, and Cronbach Alpha Coefficient was 0.72 [49]. In the current study, the Cronbach Alpha Coefficient was 0.77.

**Self-efficacy:** The sub-scale of the self-efficacy was adapted from the Motivational Strategies Questionnaire [50]. This scale has 7 items and is measured on a five-point Likert Scale. *Pintrich* and *De Groot* reported the reliability index of this scale to be 0.87 [50]. The validity of the scale was confirmed through factor analysis and Cronbach Alpha Coefficient which was calculated 0.82 [51]. In the current study, the Cronbach Alpha Coefficient was 0.88.

**Test Anxiety:** In order to measure this construct, we made use of the sub-scale of test anxiety taken from the Motivational Strategies Questionnaire [50]. This scale consists of 5 items and is arranged on the 5-point Likert Scale. The validity index was acceptable and its reliability was 0.77 [51]. In the current study, the Cronbach Alpha Coefficient of the scale was 0.74.

## Results

Table 1 illustrates correlations coefficients among the variables in this research. As it can be seen, the correlation of negative perfectionism and test anxiety to self-handicapping was significantly positive. However, there was a significantly negative relationship between positive perfectionism and self-efficacy on one hand and self-handicapping on the other.

Stepwise multiple regression analysis was employed in order to further explore the relationship of perfectionism,

self-efficacy, and test anxiety to self-handicapping. Based on the findings reported in Table 2, it might be concluded that 29% of the variance of self-handicapping could be accounted by the four independent variables of interest, among which test anxiety ( $\beta=0.33$ ) and positive perfectionism( $\beta=0.16$ ) were the strongest and weakest predictor variables, respectively.

**Table 1.** Correlation coefficients between variables in the study

variable	1	2	3	4	5
1-Positive perfectionism	1				
2-Negative perfectionism	0/07	1			
3-Self-efficacy	0/09	-0/18**	1		
4-Test anxiety	0/04	0/18**	-0/20**	1	
5-Self-handicapping	0/15**	0/25**	-0/35**	0/42**	1

\*\*P<0/05

**Table 2.** Stepwise regression between predictor variables and self-handicapping

mod	R	R <sup>2</sup>	B	$\beta$	P
Test anxiety	0/42	0/17	1/09	0/42	0/001
Test anxiety			0/95	0/36	0/001
Self-efficacy	0/50	0/25	-0/65	-0/27	0/001
Test anxiety			0/92	0/35	0/001
Self-efficacy	0/52	0/27	-0/68	-0/29	0/001
Negative perfectionism			0/14	0/16	0/001
Test anxiety			0/86	0/33	0/001
Self-efficacy	0/54	0/29	-0/63	-0/27	0/001
Negative perfectionism			0/15	0/17	0/001
Positive perfectionism			-0/19	-0/16	0/001

## Discussion

Self-handicapping is considered as an upheaval, blocking individual progress. By resorting to self-handicapping, an individual controls the evaluation of other people of his/her efficacy and capability. The findings of the present study showed that self-handicapping is significantly correlated with test anxiety, self-efficacy and perfectionism. Test anxiety was the strongest predictor of self-handicapping. This means that the more the text anxiety, the more the self-handicapping. Even if very few studies have been carried out so far into the relationship between test anxiety and self-handicapping, nevertheless, the findings of the present study are consistent with findings so far [38, 39]. In order to account this finding, it is possible to say that students with high levels of text anxiety lack the necessary perseverance to accomplish their assignments, avoid difficult assignments, and demonstrate behaviors similar to self-handicapping [52]. In addition, the research evidence suggests that they take advantage of symptoms of test anxiety as self-protection [38]. However, the findings do not imply that test anxiety is nothing but a self-protective device. In addition, the findings could be accounted by using the model of appraisal-stress-avoiding self-handicapping behavior. According to cognitive and coping theories, if individuals consider a situation threatening and see their own resources to cope with it as insufficient, the reaction to that situation would be stress, which manifests itself as test anxiety. Individuals try to run away from these situations [53] or make up an excuse for it [12].

Another finding of the current study was that both dimensions of perfectionism could predict self-handicapping. This means that positive perfectionism has a negative relationship and negative perfectionism has a positive and significant relationship with self-handicapping. These findings are consistent with theoretical views and previous research findings [14, 20, 54-57]. Given that perfectionists, especially negative perfectionists promote unrealistic expectations and emphasize high standards, which are usually beyond their resources and capabilities, this may lead to fear of failure and anxiety in them, which, in turn, may result in self-handicapping or avoiding that task [46]. Positive perfectionists who follow high self-selected standards, are highly motivated, their focus of control is internal and have potential of achieving success under certain conditions. In such contexts, it is natural that positive perfectionism negatively correlates with self-handicapping [15].

In addition, the findings of the study showed that self-efficacy is a negative and significant predictor of self-handicapping. This finding is in line with previous findings [26-29] and is justifiable from socio-cognitive viewpoints. This is consistent with the approach that humans are not only affected by the environment, but they also have an impact on the environment through their mental processes. Therefore, humans have an agentive role. According to Bandura [23], the most important mechanism of the individual's agentive role is self-efficacy beliefs. Bandura [24] holds that students' perceptions of their own skills have an impact on the activities which they choose, the degree to which they challenge themselves in those activities, and perseverance which they exhibit. Therefore, if self-esteem, and, consequently, self-efficacy is threatened in a particular area, in order to manage this threat, individuals may adopt strategies to defend for their self-esteem. Self-handicapping is one of these strategies [55, 58].

The findings of this study have numerous implications for teachers, students and educational authorities. It is suggested that study skills, and skills to cope with irrational and illogical beliefs be taught. In order to improve the behavioral patterns of students, it is necessary to provide some training so that by forming emotional bases in students and positive self-belief, a context is created in which the adoption of self-handicapping strategies is reduced.

Regarding the limitations of this study, it is necessary to point out that the participants of the study were high school students. The grade of the students, and the research design (i.e. correlational) have introduced limitations in generalizing the findings, interpreting them and finding causal relationships, which must be taken into account.

## Conclusion

The findings of this study suggests that there is a complex relationship between self-handicapping and characteristics such as test anxiety, self-efficacy and perfectionism. It is not yet known whether some

personality, cognitive or emotional factors bring about self-handicapping or not. It is possible to say that anxious people, due to experiencing negative emotions or fear of negative evaluation (the construct related to test anxiety) and people with low self-efficacy, due to lack of self-belief and perfectionists, due to fear of failure, are more prone to self-handicapping.

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