



## Influence of Self-Leadership Strategies on the Beliefs of General Self-Efficacy

**Ioannis Proios**

Department of Physical Education and Sport Science Aristotle University of Thessaloniki, Greece

**Eleni Fotiadou**

Department of Physical Education and Sport Science Aristotle University of Thessaloniki, Greece

**George Doganis**

Department of Physical Education and Sport Science Aristotle University of Thessaloniki, Greece

**Sofia Batsiou**

Department of Physical Education and Sport Science Democritus University, Komotini, Greece

**Miltiadis Proios\***

Department of Physical Education and Sport Science Aristotle University of Thessaloniki, Greece

### Abstract

The purpose of the present study was to examine the existence of the mediatory role of self-leadership strategies on the self-efficacy of people participating in physical activities, and individual differences in gender- and form of physical activity-related self-efficacy. One hundred and seventy-one undergraduate students from a Greek university participated. All participants participated in physical activities (competitive and recreational). They filled out validated Greek versions of the Revised Self-leadership Questionnaire (RSLQ) and General Self-Efficacy (GSE). Results revealed that self-leadership strategies (self-goal setting, self-reward, self-punishment and nature reward) predicted general self-efficacy, and they supported that gender affects general self-efficacy.

**Keywords:** General self-efficacy; Self-leadership; Physical activity; Gender.



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### 1. Introduction

#### 1.1. Influence of Self-Leadership Strategies on the Beliefs of General Self-Efficacy

According to Bandura (1994;1997) self-efficacy beliefs determine people's perceptions of their ability. Mischel (1973), claims that abilities include "the quality and range of the cognitive constructions and behavioral enactments of which the individual is capable" and the ability to "construct (generate) diverse behaviors under appropriate conditions" (p. 266, 265). Maddux and Volkmann (2010), support that self-efficacy beliefs are appraisals of our ability to use our competencies in specific domains and situations. Self-efficacy beliefs develop over time and through experiences (Maddux, 2002).

Self-efficacy measurement has support that must be tailored to the particular domain of functioning that is the object of interest (Bandura, 1997;2006). However, other researchers supported self-efficacy measurement at the general level, as general self-efficacy is relatively stable over time and in domains of functioning (Scheier and Carver, 1992), as a psychological trait as opposed to a more dependent and fluctuating situation. Eden (1988); Gardner and Pierce (1998). General self-efficacy (GSE) is "individuals' perception of their ability to perform across a variety of different situations" (Judge *et al.*, 1998). It refers to an accumulation of life successes that have emerged as a result of previous experiences (Bandura, 1977; Chen *et al.*, 2001; Eden, 1988). General self-efficacy has a great utility in explaining behaviors in less specific domains (Luszczynska *et al.*, 2005) and in predicting general outcomes (van der Slot *et al.*, 2010).

Bandura (1977;1997) supports that people develop self-efficacy beliefs by integrating information from five sources: performance experience, vicarious experience, imaginal experience, verbal persuasion, and affective and physiological states. He also supported that self-efficacy beliefs are most strongly influenced by our own performance experiences. Maddux and Volkmann (2010), report that although self-efficacy is not a personality trait, the capacity for developing strong self-efficacy beliefs may be influenced by personality. For Bandura (1997), experiences of personal mastery indicate that are the most powerful influence on efficacy beliefs.

Self-leadership is conceptualized as an intrapersonal process of influencing oneself (Manz, 1986); (Manz and Neck, 2004). Researches have clearly identified a relationship between self-leadership and personality (Gwavuya, 2011; Park and Kim, 2009). Prussia *et al.* (1998), showed that self-leadership strategies had a significant effect on self-efficacy evaluations. Neck and Manz (1996), stated that participants who received self-leadership training experienced enhanced perceptions of self-efficacy. Furthermore, Neck and Houghton (2006) suggested that self-leadership predicts self-efficacy.

Self-leadership strategies are divided into three general categories labeled behavior-focused strategies, natural reward strategies and constructive thought pattern strategies (Houghton and Neck, 2002). *Behavior-focused strategies* include self-observation, self-goal setting, self-reward, self-punishment and self-cueing. *Natural reward strategies* incorporate two strategies building pleasant, enjoyable features into a task and focusing attention away from the unpleasant aspects of a task. *Constructive thought pattern strategies* include identifying and replacing dysfunctional beliefs and assumptions, mental imagery and positive self-talk.

The purpose of the present study is to examine the existence of the mediatory role of self-leadership strategies on the self-efficacy of people participating in physical activities and to explore the existence of potential individual differences in gender- and form of physical activity-related self-efficacy. For gender differences, in general, the studies have determined that males display higher levels of self-efficacy than do females, and in accordance with Bandura's findings, they display higher levels of achievement in science education. Studies in the field of athletic training did not report a relationship between gender and self-efficacy (Weidner and Popp, 2007). However, the results of another study indicated that gender was contributing to changes in perceptions of self-efficacy (Carr and Volberding, 2014). While in relation with a form of physical activity and self-efficacy it argues that self-efficacy is one of the most important psychological variables associated with levels of sports performance (see Feltz *et al.* (2008)).

## 2. Method

### 2.1. Participants

Participants included 171 male ( $n = 82$ ) and female ( $n = 89$ ) undergraduate students from a Greek university (Department Physical Education and Sport Science) (ages 18–27). All participants were participated in physical activities (competitive:  $n = 102$ , and recreational:  $n = 69$ ).

### 2.2. Procedure

Prior institutional permission was granted before conducting the research. Data were collected from undergraduate physical education classes after permission granted by the competent Professors and after the participants were informed of the nature of the study. Participation was voluntary, and no incentives were provided.

### 2.3. Measures

*Self-efficacy.* A validated Greek version (Proios, 2019) of the General Self-Efficacy (Chen *et al.*, 2001). (This scale was used was measured using an 8-item scale. Responses were obtained on a 5-point response format ranging from 1 (strongly agree) to 5 (strongly disagree). General self-efficacy was computed as the average of the scores of the eight items. Chen *et al.* (2001), reported Cronbach's alphas from .85 to .90. In the present study, the alpha coefficient was .83.

*Self-leadership.* A validated Greek version (Proios, 2019) of the Revised Self-leadership Questionnaire RSLQ; (Houghton and Neck, 2002) was used. It was 25 items to be answered on a 5-point Likert-type scale with anchors 1: Totally disagree and 5: Totally agree. The Greek version of the Revised Self-leadership Questionnaire (RSLQ-Gr) consist eight distinct sub-scales representing the three primary self-leadership dimensions (1) Behavior-focused consists four strategies: Self-goal setting (four items, e.g., I establish specific goals for my own performance), Self-reward (three items; e.g., When I do an assignment especially well, I like to treat myself to some thing or activity I especially enjoy). Self-punishment (four items; e.g., I tend to get down on myself in my mind when I have performed poorly). Self-cueing (two items; e.g., I use written notes to remind myself of what I need to accomplish). (2) Natural reward strategies consist by single sub-scale with two items (e.g., I seek out activities in my work that I enjoy doing). (3) Constructive thought pattern consists three strategies: Visualizing (four items; e.g., I visualize myself successfully performing a task before I do it). Self-talk (three items; e.g., Sometimes I find I'm talking to myself (out loud or in my head) to help me deal with difficult problems I face). Evaluating beliefs and assumptions (three items; e.g., try to mentally evaluate the accuracy of my own beliefs about situations I am having problems with). The reliability of the RSLQ-Gr was calculated using alpha coefficient. Alpha coefficients for the self-goal setting was ( $\alpha = .74$ ), self-reward ( $\alpha = .84$ ), self-punishment ( $\alpha = .64$ ), self-cueing ( $\alpha = .78$ ), natural rewards ( $\alpha = .62$ ), visualizing ( $\alpha = .77$ ), self-talk ( $\alpha = .88$ ), and beliefs ( $\alpha = .65$ ), indicating good reliability for each The values (.62, .64, and .65) can be considered satisfactory since these factors comprises less than ten items (viz. two, four and three items respectively) (Ntoumanis, 2001; Pallant, 2010).

### 2.4. Data Analyses

Descriptive statistics, including means and standard deviations, were calculated from the participants' responses. Data were analyzed using the SPSS version 21 statistical software package. Inferential statistics (univariate analyses of variance [ANOVA]) were used to analyze the extent to which the general self-efficacy of the physical activities that were participated in varied with gender and form of physical activity.  $n^2$  values were used to control for the level of effect of the above variables. Finally, a standard multiple regression was conducted to investigate the influence of self-leadership strategies (predictors) within a criterion (general self-efficacy).

## 3. Results

Descriptive statistics revealed that physical activities that were participated in presented moderate scores in general self-efficacy ( $M = 3.70$ ,  $SD = .47$ ). By examining the results of descriptive statistics, it was found that men's

scores were higher than those of women ( $M = 3.82$ ,  $SD = .52$  and  $M = 3.59$ ,  $SD = .47$ , respectively) in the general self-efficacy, while regarding the form of physical activity the participants in competitive activities scored higher than those who participated in recreational activities ( $M = 3.72$ ,  $SD = .48$  and  $M = 3.68$ ,  $SD = .47$ , respectively).

To determine whether general self-efficacy differed significantly in regard to factors (gender and form of physical activity), separate analyses of variance (ANOVAs) were conducted. The univariate analysis showed that gender differentiates general self-efficacy ( $F(1,170) = 11.17$ ,  $p < .001$ ,  $\eta^2 = .062$ ). The finding  $\eta^2 = .062$  indicates that 6.2% of the total variance in general self-efficacy is accounted for by gender differences and as such it can be classified as a small effect. On the contrary, the univariate analysis did not reveal a significant main effect of form physical activity ( $F(1,170) = .18$ ,  $p > .05$ ).

In the current study, it was hypothesized that self-leadership strategies could affect the general self-efficacy of people participating in physical activities. Standard multiple regression analyses (Tabachnick and Fidell, 2007) were conducted to examine the possible moderating role of self-leadership strategies in predicting people's general self-efficacy in physical activities.

The results (see Table 1) indicated a significant relationship between general self-efficacy and self-leadership strategies ( $R = .56$ ,  $R^2 = .31$ ,  $F(8, 162) = 9.15$ ,  $p < .001$ ), accounting for the 31% of the variance. The standardized beta coefficient revealed a positive effect for nature reward strategy ( $\beta = .23$ ), self-goal setting strategy ( $\beta = .21$ ) and self-reward strategy ( $\beta = .14$ ) on general self-efficacy while a negative effect of self-punishment strategy was found for the general self-efficacy ( $\beta = -.19$ ).

**Table-1.** Standard Multiple Regression Analysis of Self-leadership Strategies Predicting General Self-efficacy

| Variables                    | B     | SE   | B     | t       |
|------------------------------|-------|------|-------|---------|
| <i>General Self-efficacy</i> |       |      |       |         |
| Self-goal setting            | .047  | .019 | .213  | 2.50**  |
| Self-reward                  | .028  | .014 | .140  | 2.05*   |
| Self-punishment              | -.034 | .012 | -.190 | -2.83** |
| Natural reward               | .087  | .028 | .227  | 3.12**  |

Note: \* $p < .05$ , \*\* $p < .01$

#### 4. Discussion

In this study the mediatory role of self-leadership strategies on general self-efficacy participants' in physical activities was investigated along with the existence of potential individual differences in gender- and form of physical activity-related self-efficacy. Initially, findings from this study revealed significant differences only in the perception of general self-efficacy in physical activities between males and females; that is, gender was a contributing factor to changes in the perceptions of general self-efficacy. We found that males had higher ratings than females in general self-efficacy. This result is supported by findings of other studies (Carr and Volberding, 2014; Martin, 2006). Although self-efficacy is one of the most important psychological variables associated with levels of sports performance, the results of this study did not indicate significant differences between participants' in competitive and recreational activities. This finding supports the claim that self-efficacy should not be expected to be as strong a variable in the efficacy-performance relationship (Bandura, 1986;1990).

The results from regression analysis supported the claim that general self-efficacy is associated with self-leadership strategies. This relationship is possible because self-leadership is constituted of certain cognitive and behavioral strategies that are designed to affect self-efficacy (Neck and Houghton, 2006). The finding of the present study is consistent with previous research on the significant effect of self-leadership on self-efficacy (e.g. Neck and Houghton (2006); Prussia *et al.* (1998). Neck and Manz (1996) showed a significant difference in self-efficacy levels between a group that had received thought self-leadership training and a non-training control group. Recently, study results revealed that the use of self-leadership strategies enhances self-efficacy perception in both the non-profit and for-profit sports sectors (Megheirkouni, 2018). In addition, the finding of this study reinforces the claim that self-leadership drives self-efficacy (Mansor *et al.*, 2013; Neck and Manz, 1996; Neck and Houghton, 2006; Prussia *et al.*, 1998; Unsworth and Mason, 2012). Overall, based on the above findings, it can be argued that, through the use of various self-leadership strategies in sports settings, team members can effectively increase their self-efficacy beliefs for undertaking various leadership roles and responsibilities within the team.

More specifically, the results of the recent study indicated that a weak to moderate positive relationship existed between general self-efficacy and behavior-focused strategies—self-goal setting and self-reward—and natural reward strategy. A moderate negative relationship was also found between general self-efficacy and self-punishment strategy. This finding is reinforced by those of a previous study that revealed a weak association between general self-efficacy and behavior-focused strategies (Norris, 2008). Behavior-focused strategies as a mechanism increase people's self-awareness and are likely to help in the improvement of general self-efficacy. Specifically, self-goal setting and self-reward strategies are variables that affect achievement outcomes (Bandura, 1988;1990; Schunk, 1990), as does self-punishment strategy because it operates as a self-reward strategy focused on self-applied consequences for behavior (Neck *et al.*, 2017). The nature reward strategies as a mean intrinsic motivation and feeling of competence (Deci and Ryan, 1985; Neck and Houghton, 2006) can reinforce self-efficacy. This function can happen because the above strategy adds much more pleasant features to the given activity and ensures that the activity to be done is seen as a natural reward (Manz *et al.*, 2001; Manz and Neck, 2004).

## 5. Limitations

One potential limitation of this study was the procedure utilized for selecting participants. Survey respondents included students enrolled in undergraduate courses, and the sample was not randomly selected. Future researchers may be interested in confirming the results of this study with a randomly selected sample. Another limitation of the study was the assessment of self-efficacy based on self-reports. Additionally, a limitation was the size of the sample. The findings cannot be generalized to the broader population that participate in physical activities without further replication; further, it cannot be applied to other age groups because the sample that was used consisted of mostly young people (18–27 years).

## 6. Conclusions

The findings of this study led to the conclusion that self-leadership strategies help greatly in improving the general self-efficacy of participants in physical activities. Self-goal setting, self-reward, self-punishment and nature reward were found as stronger predictors. Additionally, this study has provided support for gender as a factor that affects general self-efficacy.

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