Physical Education Students’ Psychological Skills in Facing Sport Competition

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Abstract—Psychological skills have important roles in the performance of sport. Unfortunately, research related to psychological skills of Physical Education college students, who often interact with sport competition, is scarce. Therefore, this study was aimed at exploring the Physical Education college students’ psychological skills of sport in facing competition. The study was conducted under exploratory research design employing the Test of Performance Strategies-2 (TOPS-2) as the instrument for collecting data related to nine psychological skills of sport. The data were taken from twenty eight Physical Education college students and analyzed through descriptive data analysis. The data showed that self-talk, imagery, and goal setting skills had the highest score. Meanwhile, controlling emotion and negative thinking became the two psychological skills with the lowest score. The result also discovered that female participants obtained higher average score than male participants. However, male participants obtained higher scores in controlling emotion and negative thinking. Due to the result of the study, it is expected that psychological skills training matched the students’ psychological skill profile can be applied to develop students’ better enhancement in sport.

Keywords—competition; performance; psychological skills; psychological skills training; psychological intervention

1. INTRODUCTION

The optimal performance of sport skills of an individual depends on many factors, including physical, technical, and psychological fineness [1]. It is believed that mental skills are the proven and the major components of performance in high-level competitions [1] and are vital for optimal sport performance, as is the role that various problems may play on a sportsman or woman’s psychological functioning [2]. The study within sport psychology, involving the study of how psychological factors influence athletic performance has become one of the most common areas of study [2]. The previous research discover that psychological skills have contribution on developing an athlete’s coping skills [3], concentration, and stress responses [4]. To enhance and to optimize an athlete’s coping skills, it is important for the athlete to develop their mental skills [3]. The use of various psychological techniques including visualization (imagery) and body relaxation has a significant influence on concentration and stress response [4]. Other psychological factors including motivation and goal setting are also believed to play an important role in the successes of professional athletes [4]. Therefore, one’s psychological skill condition is vital in determining one’s performance during sport competition.

The critical role of the psychological skills of sport on sport performance urges the psychological training enforcement. The importance of psychological skills training (PST) in developing the athletic performance is widely recognized that the number of athletes using psychological training strategies is getting higher [5]. Several research had also been conducted to examine the impacts of PST on psychological skills for both sport performance and rehabilitation. Throughout the intervention program, the levels of psychological well-being and mental toughness of participants significantly increased, in addition to autonomy, self-acceptance, and positive relationships with others [6]. The PST program also generally improved psychological well-being and psychological skills at individual, group, and community level [7]. Furthermore, PST has been proven as a successful method for psychological rehabilitation intervention. It concludes that PST program is significant both in rehabilitation process and in improving one’s sport performance process [8].

Despite the encouraging result of the research regarding the PST program, there are other factors to be considered. Research indicates that the required psychological characteristics to be successful may vary by a number of situational factors, including the type of sport, the level of competition, and the position played within a sport [9]. Considering individual differences between athletes and the specific function of the technique used, PST techniques are not universally applicable [5]. Therefore, knowing the profiles, the need, and the condition of the individual joining the training is crucial.

The previous study had shown that psychological skills, psychological skill training, and psychological skill profiles have significant impacts on athletes’ performance [2,3,6,10]. However, the number of study involving Physical Education college students is limited. Meanwhile, they actively involve and often have interaction in sport competition whether as the athlete, the coach, the referee, or the committee. Therefore, it is urgent to prevail the profile of their psychological skills. Thus, this study was aimed at discovering the Physical Education college students’ psychological skills in facing sport performance.
II. METHOD

A. Research Design and Approach

The present study was an exploratory study. The study employed exploratory approach for its nature to portray a phenomenon that match the attempt of the present study to explore the Physical Education college students’ psychological skills of sport [11].

B. Data Collection Instrument and Procedure

In discovering the psychological skills of sport, Test of Performance Strategies is one of the most common scales to be used. This study employed Test of Performance Strategies-2 as the latest version of the instrument developed by Hardy et al [15]. The Test of Performance Strategies was firstly introduced in 1999 by Thomas et al [13]. It has been revised and revalidated in 2010 by Hardy et al [12] and replicated into different languages such as into Spanish in 2018 by Lourido [14]. By considering the validity, reliability, recency, and the wide use of the instrument, thus this study used TOPS-2 as the instrument to collect the data.

The Test of Performance Strategies-2 includes sixty four items to portray nine aspects of psychological skill including, emotion control, activation, relaxation, self-talk, goal-setting, imagery, negative thinking control, attentional control, and automaticity [9]. The test was in form of liker scale consisting five scales ranged from never to always. The data were obtained from 28 Physical Education college students in 2018.

C. Data Analysis

The obtained data were analyzed by following the process of inductive analysis including identifying the data, formulating hypothesis, and arranging general conclusion [15]. The process of data analysis covers three processes including identification, categorization, and interpretation. In analyzing data, descriptive data analysis was administered including calculating the total score and means.

III. FINDINGS AND DISCUSSIONS

A. The General Profile of the Students’ Psychological Skill of Sport

The study was aimed at discovering the psychological skills of Physical Education college students by employing TOPS-2 as the collecting data instrument. The data collected from twenty eight students were then identified and categorized into nine categories of psychological skills including emotion control, activation, relaxation, self-talk, goal-setting, imagery, negative thinking control, attentional control, and automaticity. The students’ scores in each category were then calculated. The average scores of the nine categories are presented in Fig. 1.

The findings indicate that the students frequently used and were good in self-talk, imagery, and goal-setting skills. This is probably caused by their background as Physical Education students who are prepared to be a Physical Education teacher in the future. As a teacher to be, the students are prepared and required to set goals and objective for the lesson, imagine how to manage the class during the preparation, and give positive motivation and feedback to the students. Thus, they had got used to use those skills.

Students’ high scores in the imagery skill, positive self-talk skill, and goal setting skills are instrumental in influencing their performance. The simple imagery skill has a significant impact on stress response and concentration [4]. Goal setting and positive self-talk are instrumental in influencing positive behavioral and emotional outcomes such as adherence, anxiety reduction, and positive outlook [16]. Thus, the result might indicate that the students could harvest benefits of their psychological skills in coping with the situation, such as reducing anxiety, and in performing their performance.

The interesting evidence appears in the study is that the students gained low score in controlling emotion and controlling negative thinking. It is probably caused by their age and their developmental stage. The students were 18-20 year old at the time the data collection conducted. The age of 18-21 years is categorized as late adolescence stage in which a possible reemergence of egocentrism occurs since egocentrism may be a powerful influence on behavior each time an individual enters into a dramatically new life situation or new environmental context [17]. Hence, emotional skill has to be one of the challenges in improving their psychological skills.
The data concludes that the Physical Education college students obtained the highest scores in self-talk, imagery, and goal setting that could give positive influence both in coping with the situation and in performing. The lowest scores laid in controlling emotion and negative thinking skills that may be caused by their age and developmental stage status. From the data, we can indicate which skills that need improvement and which skills that need to be maintained. It could be a beneficial information in conducting psychological skill training.

**B. Gender Differences**

Additional findings from the research are related to gender differences in psychological skill of sport. The result of data analysis found differences between male and female participants scores. The result shows that, in average, female participants obtained higher total score (229) than male participants (209.94). The detailed differences are shown in the Fig. 2 below.

![Graph showing gender differences in psychological skills](image)

**Fig. 2.** Male and female psychological skills of sport score.

The study shows that female participants obtained higher scores in seven psychological skills involving activation, relaxation, self-talk, goal-setting, imagery, attentional control, and automaticity. The highest range of score differences laid on self-talk skills (6.03) and automaticity skills (4.31). In the other hand, male participants gained higher scores in two skills including emotional control and negative thinking control skills.

The study shows that female participants obtained higher total score of the test. The female participant were portrayed gaining higher scores in seven of nine psychological aspects including activation, relaxation, self-talk, goal-setting, imagery, attentional control, and automaticity. This finding is in line with the study of Gil et al. [2] that women group obtained higher mean scores in general. However, other studies argue that there is no significant differences between male and female participant [1,10]. By considering the different result of the previous studies and the limitation of the present study which did not focus on gender differences nor testing the significant of the differences, further deeper study is needed.

**IV. CONCLUSIONS AND SUGGESTIONS**

It is well known that the less successful sport participants differ from the successful sport participants regarding their psychological skills of sport [10]. The result of the present study shows that Physical Education college students gained different scores in each psychological skills. The information is beneficial to be considered when we conduct a psychological training intervention as the stressors and the psychological issues should be addressed early in order to help avoiding a full-blown disorder and its potential consequences on the athletes' career and health [18]. Besides educational background, gender is also an important interpersonal factor to be taken into account when dealing with male and female sport participants in competitive sport [10]. The study prevails that female obtained higher scores than male. However, the result of the study cannot be generalized since the data and the analysis process of the study did not focus on gender differences. Therefore, further study related to gender differences is needed to be conducted.

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