

Competitive Anxiety and Mindfulness

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Abstract. Competitive anxiety is a sport psychology theoretical widely interested and continually researched topic. Mostly, the research has emphasized on time preceding competition which can be separated into one of three fields of area: the relationships of trait and state anxiety to athlete's performance, the effectiveness of controlling anxiety intervention to increase performance, and precursors of anxiety. This article review focused on elucidating potential mechanisms of competitive anxiety, which precursors is the perception of threat. And also explained the new sport psychological training approaches, *Mindfulness* is chances effective and useful for physiological and psychological treatment, which is cognitive mechanisms that inhibit/disturb to thinking and control in thought mechanisms in the present while there is no worry about the future, and not worthy to the past. Consequence, uncertainty occur from competitive and outcome importance therefore no disturbing the minds of athletes in training or during sports competition. Summarized, there are needed for the future study in testing of the relationships of competitive anxiety and mindfulness.

Keywords: Competitive Anxiety, State Anxiety, Trait Anxiety, Mindfulness, Meditation

1 Introduction

Competition is a social comparison process that creates uncertainty before the actual contest because one can never be sure that performance outcome will turn out favorable until it process is completely done.^[1] In sports situations, the athletes were impacted with many internal and external arousal factors.^[2] When athletes are out of control that stimulus and adjust properly, there is lead to disturb their emotion and thinking.^{[3],[4]} competitive situations, stress and anxiety can increase as time preceding competition and time to competitive.^[5] Anyhow, in the session of training program, an optimal level of stress manipulation only has a positive effect on athletic performance,^[6] but not for anxiety. In accomplishing athlete's performance, this can be applied for any coaches in order to control a suitable of stress and prevent an over stress that will be caused of anxiety. The negative affects to both athlete's body and mind ^[7] can be decreased by those concern. Therefore, in this point, the studies and research on sports psychology are widely and continuously development. Especially, the psychological or mental skill training is shown it effective in helping an individual to better understand their own mental state, and playing control over the thoughts and emotions arising before or during competition.^{[8],[9],[10]} There is involves the implementation of techniques, such as goal

setting, relaxation, pre-performance routines, positive self-talk, arousal regulation, and visualization.

For the cognition approach, in fact of the past and future, which the past has already gone although feel shame and guilt cannot be changed, while the future is not arrived and it completely unknown,^[11] therefore, when the athletes paying attention task at hand in the present moment infused with qualities, that result them no worry about the future, and not groan to the past.^[12] Consequence, uncertainty occur from competitive and outcome importance therefore no disturbing the minds of athletes in training or during sports competition and self-confidence has increased.^[13] These is accorded to the conceptual of Mindfulness Theory that leads to practice reduce competitive anxiety. However, an applying of the principles of thought and the effect of mindfulness in a sporting situation is not as easy as it seems. Even there are supported by the related literatures.^{[14],[15]} This article aims to describe the definition, mechanism, theory of competitive anxiety and mindfulness in sport, and its potentially relationship. It would be reflected the appropriately guide or direction in athletic training and sport psychology researching.

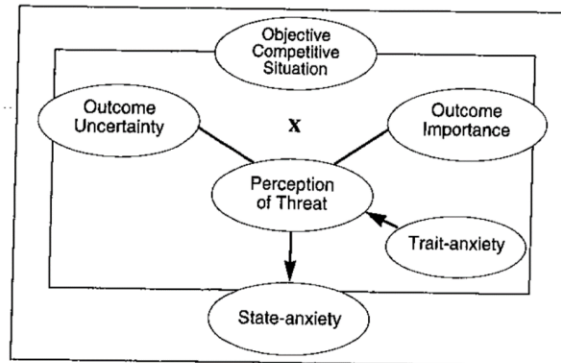
2 Competitive Anxiety

Anxiety means a disturbed state of mind.^[16] Occurrence of anxiety has a negative effect on physiological and psychological athletes.^[5] Sport anxiety is also the physiological and psychological symptom form imbalance between athletic demand and response capability.^[17] Resulted athlete who sense unable to meet the demand elevated performance on both training or competition, will perceive threat.^[13] Threat is a function of uncertainty multiplied by importance if either uncertainty or importance away to exist, there is no threat.^[18]

Specifically, in sport competition situation, the competitive anxiety is a sport psychology theoretical widely interested form coach, athlete and researcher. Famous sports psychologist, Martens, Vealey, & Burton, (1990)^[1] elucidated a precursors of sports anxiety that is perception of threat which caused in period preceding and during competition by perceived uncertainty of outcome, performance or the result in future and perceived the significance of outcome (Prapavessis, Cox & Brooks, 1996).^[18]

Mostly, the research has emphasized on time preceding competition which can be separated into one of three field of area: the relationships of trait and state anxiety to athlete's performance, the effectiveness of controlling anxiety intervention to increase performance, and precursors of anxiety. which has been mentioned above to threat, the precursor of competitive anxiety and see more theoretical model^[1] in Figure 1.

Figure 1: Martens, Vealey, and Burton's (1990) theory of competitive anxiety.



Competitive anxiety, there are composed of trait and state anxiety construct.^[11] The trait anxiety is personally characteristic that call anxious personality,^[5] which separated into three components of trait. Firstly, trait cognitive- worry is the predisposition to feel worried about competition. Secondly, trait somatic anxiety that is the general tendency to feel bodily changes of the autonomic nervous system in competitive situations for example increase heart rate, shortness ofbreath, tense muscle, clammy hands. Lastly, the concentration disruption that is the inability to stay focused on the task whilst competing.^[18] While the state anxiety is a reflects time period focused to anxious feeling relatively to a present or future meaningful context.^[5] There are three separated components of state. Firstly, cognitive state anxiety which is considered the immediate conscious awareness of unpleasant feelings (worry) about oneself or external stimuli before and/or during the sport contest. Secondary, somatic state-anxiety that is the immediate awareness of bodily symptoms of the autonomic nervous system. There is a same somatic trait symptoms before and during the competition. Thirdly, the state-confidence which is define the degree of certainty that athletes feel about their ability to be successful.^[18]

In measuring competitive anxiety, the researchers developed the standardizes tests and globally used to observe its level and construct in the athelets.,^[19] such as the Sport Competition Anxiety Test (SCAT),^[20] the Competitive State Anxiety Inventory-2 (CSAI-2),^{[21],[22],[23]} and the Sport Anxiety Scale-2 (SAS-2).^[24] The scales used in those questionnaires focus on the factors of cognitive anxiety, somatic anxiety and confidence. There was, then, also adapted and standardized in many language around the world.

The psychological skill training (PST) was developed and called a mental training by sport psychology researchers,^[25] which includes various processes that focus on controlling emotions and thoughts considered detrimental.^[26] This process is often disrupted by the human tendency to think negatively. This is not only a condition of precisely counter-intentional error, but also has the potential to increase the athlete's negative condition by encouraging athletes to explore the negative experiences.^[27] This process of exploring experiences adversely affects negative thoughts and feelings that

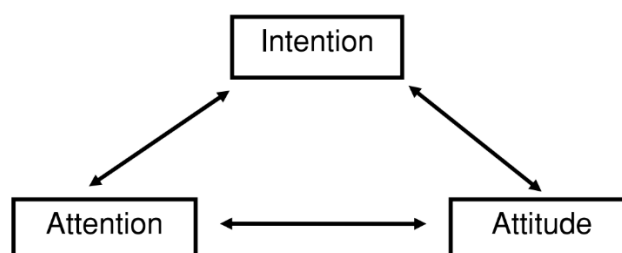
are prominent in consciousness.^[28] Research evident are supported a positive effect of any PST techniques on competitive anxiety. Walter et al, 2019^[29] showed that self-talk could reduce the side effect of competitive state anxiety. The same result also happened in other research, which used imagery,^[30] arousal regulation through relaxation,^[10] and goal setting as interventions.^{[31],[32],[33]} However, the sports psychologist, they are continuously trying to research and propose the effectively techniques in reducing competitive anxiety in order to serve as a versatile choice and specifically for athletes .

Therefore, in sports competitive situation, the understanding of anxiety and how to deal it by choosing the appropriately PST technique. Includes, the distinguishing the level and type of anxiety. It can be helped the athletes compete to their game with full potentially performance.

3 Mindfulness

In the Eastern and Western cultures, mindfulness originally developed in ancient time, An Indian “Sati” word derivation, which was generally represented to awareness attention and remembering.^{[34],[35],[11]} Mindfulness is mean a flexibly paying attention on purpose in the present moment that infused with qualities like kindness, curiosity, acceptance and openness.^[11] In addition, Jon Kabat-Zinn is an initiatively researcher of scientifically mindfulness practicing in sport and chronic pain reduced,^{[36],[37]} whose are gave a specific definition of mindfulness as a structured mind set to being aware of the present-moment experience in an accepting, non-judging, and non-avoiding way.^[38] There was then considered another mental training besides PST that include some practice of meditation and yoga.^[39] The intervention of mindfulness is effective for both psychological and physical symptoms.^[35]

For the best performance, a function of mindfulness is increase concentration, developing clear seeing and perception, guarding the mind, and balancing the mind.^[37] These functioning takes place through the following mechanisms by three axioms form which composed of intention, attention and attitude as depicted in Figure 2.^[35]



The three axioms of mindfulness for each axioms can be defined that the intention is the dynamic and evolution of personal vision,^[35] that let them change and develop with deeper training.^[40] On the otherwise, the attention is a capacity in one object attending for long time periods^{[41],[42]} and able to inhibit other thoughts.^[43] Finally, an attitude is quality of mind, which people around can perceive such as kindness, friendliness, openness and interest.^[44] All those three axioms are not separate stage, interwoven aspects of a single cyclic process, and occur simultaneously. Therefore, mindfulness is a state of mind at each moment to it moment process.^[35]

From the above mechanisms lead to different forms of training based on the concept of Kabat-Zinn (1994).^[38] Especially, Mindful Sport Performance Enhancement (MSPE) of Kaufman and his colleagues (2009).^[45] There are composed of six following patterns in mindfulness training; 1) raisin exercise, for this reason, while eating because most of the time people eat delicious food will quickly eat without recognizing the nature of chewing or swallowing,^[46] 2) body scan can be explained by the reason that used of various gestures to expand the ability in perceive one's own body whole movement, the angle of the joint, the tension, and any changes that are happened with the body at that moment,^[47] 3) mindful breathing use this method to practice mindfulness while respire, can be done anywhere, anytime every situation because athletes are breathing all the time. This technique is the perceiving to know how the air enters and flows out of the lungs through the nostrils. In Buddhism, this technique is also called "Anapanasati". This method, whenever an athlete thinks of something other than breath awareness, they need to retrospective their breathing and feeling during a number of 2 to 3 of their deep breaths. Become mindful of new breathing and usually keep doing those at the appropriate time for each individual is also recognized,^[48] 4) sitting meditation is a mindfulness technique that focuses on stillness and concentration in something may be perception of breathing same as mindful breathing and keep doing this by doing it in a sitting position, 5) mindful yoga use yoga as an awareness-raising activity in mindful stretching, flexing, tensing, and slow movements, with the control and perception of breathing while moving,^[47] and 6) walking mindfulness, it is a practice of mindfulness by walking. Athletes can adapt their walking methods to fit the context of their sport, and when practicing until proficiency will be able to use a mindful jogging method.^[49]

According to all six training patterns as mentioned, it can be summarized as the an appropriated of volume, frequency, time and type of training program is provides a positively results by this following suggests; the duration of mindfulness training ranged from four weeks to a long-term practice of two years, the training frequency twice a day to once a week, lasting 50-75 minutes per session. And also confirmed to various of athletes, such as cyclists, darts, hammer throwers, hockey players, hurdles athletics, fighting judo athlete, rugby football player, short/mid-range/long-distance athletics, shooters, volleyball players, swimmers, and karate athletes.^{[50],[12],[13]} As the emphasizing to the related literatures, there are not only supported for mindfulness intervention positive effect that can increase the level of athlete mindfulness, but also can decreased for athlete's stress or anxiety.^{[14],[15],[45],[51],[52]}

Both practicing and competition situation of the athletes, the measuring and evaluating of mindfulness can be observed and employed with the following popular and standardly accepted tools, such as the Toronto Mindfulness Scale (TMS) by Lau, Bishop, Segal, Buis, Anderson, Carlson & Cormody (2006).^[53] This trait mindfulness scale is composed of 13-item. The Philadelphia Mindfulness Scale (PHLMS) by Sauer et al, (2013),^[54] this state mindfulness scale is composed of 20-items. Also Mindful attention awareness scale for adolescents (MAAS-A) by Brown, West, Loverich & Biegel (2011).^[55] It is a 14 items of questionnaire that used to assess trait mindfulness for teen athletes. All measured instruments mentioned above have been translated into several languages such as Spanish and Chinese.^{[56],[57]} This phenomenon can be offered an accomplishment for the mindfulness knowledge and its application in real sport situation.

Therefore, the future research and practical application could be recommended. Elucidation on the effect of mindfulness practice on competitive anxiety with specifically in various sports and athletes, an appropriate practice of mindfulness must be considered for the potentially training intervention, and continued for revised its suitability scale across culture are needed to be done before that specifying application.

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