The Use of Relaxation and ~~/~~Imagery Skills on Varsity Athletes

with Perfectionist Characteristics

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Review of literature

Sports create a competitive environment in which athletes endure. The nature of the sport places many demands on athletes. Sports psychology has been directed toward the emotional responses to such stressors. (Weed et al, 2010) Perfectionism is commonly viewed as a personality style where athletes strive for flawlessness and set extremely high standards for their performance. (Dunn et al, 2012) Athletes strive for perfection, but it is not possible. (i.e. the perfect hit, throw, run, or jump) (Koivula et al, 2001) Perfectionism is a maladaptive characteristic that undermines athletic performance. (Stoll et al, 2010) Relaxation/Imagery mental-training can help athletes learn new skills and strategies and has been shown to increase athletes' sports performance. (Monroe-Chandler et al, 2004)

Negative reactions to imperfection weaken athlete's feelings of self-competence and self-worth by its devastation effects on self-esteem and self-confidence. (Hamidi et al, 2010) These athletes lack the acceptance of their personal limitations and have inflexibility with their personal performance. (Moran et al, 2009) It is likely in some cases that achievement striving in such pressured conditions contributes to the development of burnout in some athletes.(Appleton et al, 2009) Burnout is considered a syndrome of physical and emotional exhaustion that contributes to a reduced sense of athletic accomplishment and sport devaluation. (Hill et al, 2007) In the Brain, the way perfectionists think contributes to obsessive and compulsive activity. Many of these athletes are diagnosed with different forms of OCD. (Antony et al, 1998) Perfectionism is involved in the impersonal relationship outcomes and personal anxiety of competitors. Goals are what initiate this direct behavior and help explain certain associations between perfectionism and the social outcomes. (Shim et al, 2012) Goal oriented athletes are differentiated by two separate groups. Athletes are involved in task orientation and ego orientation. Task orientation represents the emphasis on mastering a task and improving athletic ability. Ego

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orientation represents an emphasis on outperforming others and comparing self-abilities with other athletes. Perfectionist concern over mistakes is inversely correlated to task orientation. (Stoll et al, 2010)

There is a relationship between psychological skills usage and competitive anxiety responses. (Burns et al, 2012) There are two specific mental-training skills used for athletes with perfectionist characteristics. (Hasse et al, 2013) One mental-training skill is self-talk. Self-talk is when athletes use positive catch phrases in order to reduce competitive anxiety. Some positive catch phrases are "I'm the best" and "I can do it." (Wakefield et al, 2012) Over time and with repetition of these positive catch phrases, the athletes can develop a positive mindset. Many athletes use relaxation skills to develop a sense of mindfulness; which is an increased awareness of the present task. (Fletcher et al, 2000) Another relaxation skill is imagery. Imagery plays a cognitive and motivational role in the framework of athlete's minds. (Mouratidis et al, 2011) The cognitive function of imagery is the rehearsal of specific sports skills, game plans, and strategies of routines. The motivational function of imagery is used to imagine general physiological arousal and confidence. (Monroe-Chandler et al, 2004) Studies have shown the large function of the imagery's motivational role in high level athletes. (Cottingham et al, 2014) The athletes who use imagery create a visual picture of themselves doing exactly what they imagine. Imagery has been defined as the multi-sensory reproduction of the actual sport. (Hill et al, 2007) When athletes use imagery they are performing an action in the absence of physical practice.

The impact of relaxation/imagery skills can help athletes cope with their perfectionist characteristics. Individuals with Perfectionism are characterized by frequent cognitions about the attainment of ideal perfectionist standards. These athletes have shown to be likely to experience heightened levels of anxiety. (Dunn et al, 2012) Low self-confidence can be detrimental to an athlete's sport performance. (Schnell et al, 2014) *Fear-of-failure syndrome* was diagnosed in a study to athletes with high scores in concern over their mistakes and with a greater difficulty in concentrating. (Koivula et

al, 2001) The use of relaxation strategies reduces athlete's anxiety (butterflies) and perfectionist characteristics. These perfectionist athletes are vulnerable to heightened levels of anxiety. There are two types of competitive anxiety, somatic anxiety and cognitive anxiety. Somatic anxiety is the perception of bodily symptoms due to heightened negative arousal. Cognitive anxiety is when athletes experience cognitions (thoughts) about possible failure. (Hanton et al, 2003) However, when athletes develop a relaxed mindset they can use their powerful affirmations and visualizations in order to get in the zone and stay there. (Fletcher et al, 2000)

Purpose

The purpose of this study is to see how varsity athletes with perfectionist characteristics deal with competitive situations, and how the use of mental training skills (relaxation/imagery) improves athlete's performance. Previous studies have been conducted at the college level and to the youth. This study will focus on observing the effects of a relaxation/imagery skills intervention on student athletes. The study will also be focused on the perfectionist characteristics in these competitive athletes. The athletes will hopefully benefit from acquiring the knowledge of how to handle competitive situations.

Research questions

1. Are perfectionistic characteristics prominent in varsity athletes at the high school level?

2. Can athletes at the varsity level use imagery to enhance their sports performance?

Hypothesis

H1: There are athletes at the varsity level with perfectionistic characteristics.

H2: When athletes with perfectionistic characteristics receive an imagery intervention they use relaxation/imagery to cope with perfectionism.

Methods

Participants

Participants were 83 male and female high school athletes. These athletes were in the range between 15 and 18 years of age. The participants were required to be partaking in a high school varsity sport. Informed consent was gained from each participant and parent/guardian. During the varsity season the participants completed the multi-sectional questionnaire entitled Multidimensional Perfectionism Questionnaire II. Add demographic table?

Procedure

Consent forms will be collected from the athletes. After receiving the consent forms the athletes will be given the information to take the Perfectionism Survey by email. The questionnaire that will be given out to these athletes is not meant to harm or stress these athletes. Randomly divide students according to results of the surveys. Athletes who show perfectionist tendencies will be divided equally and assigned an experimental #. All the information will be entered with a specific number.

During the next 7 days the experimental group will participate in the imagery/relaxation intervention. This is the Athletes Guide to Peak Performance CD program. This CD is a ground breaking system invented by Dr. Delice Coffey. A post test will be given to observe the changes in the athlete's perfectionist characteristics. This post test will be the same perfectionism questionnaire as the athletes previously took.

Instruments

The athletes will be given the *Multidimensional Perfectionism Scale (MPS). MPS* was used in many studies to evaluate the competitor's perfectionist characteristics. The MPS is a 35 question survey

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that is scaled 1-5 (5 being Strongly Agree). It includes 6 subscales to evaluate athletes perfectionistic characteristics. The survey requires less than 10 minutes to complete on the computer. The *Multidimensional Perfectionism Scale* was developed by Dr. Randy Frost of Smith College. The MPS was designed to assess several dimensions of perfectionism, which is defined as setting "High standards of performance which are accompanied by tendencies for overly-critical evaluations of one's own behavior." The 6 sub-scales are Concern over mistakes (CM) - 9 items, Personal Standards (PS) - 7 items, Parental Expectations (PE) - 5 items, Parental Criticism (PC) - 4 items, Doubts about action (D) - 4 items, and Organization (O) - 6 items.

Procedure

There will be a control group and an experimental group. The control group will be given no treatment and will remain unaffected. The experimental group will participate in these sessions after school in the Intel room or in their own home. Divided >2.5 on perfectionism. Group A will be of athletes with perfectionist characteristics. Group A1 will receive the relaxation/imagery intervention and group A2 will remain untreated. The control group will not be affected by the not receiving the intervention.

1. Consent 120
2. Survey 80 (MPS Survey)
3. 1-5 Likert Scale
4. Divide >2.5 perfectionistic characteristics

GROUP A < 2.5   <2.5 GROUP B

     5. Treatment

B: Remains untreated

A: Random → A1 20 Treatment + A2 20 No Treatment

          (Audio Tape)

Results

Descriptive Analysis

The MPS was designed to assess several dimensions of perfectionism, which is defined as setting "High standards of performance which are accompanied by tendencies for overly-critical evaluations of one's own behavior."

Inferential Statistics

MPS Test 1- 52 respondents

Null hypothesis: There is no significant difference between the expected and observed result.

Individuals Observed with perfectionistic Characteristic: 39

Individuals expected with perfectionistic characteristic: 40

$(O^E)^2/E$

$(39-40)^2/40=0.025$

6 Degrees of freedom

P value 0.95 (non-significant)

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Since the p value <0.05, we accept the original hypothesis (40 individuals with perfectionistic characteristic.) The deviation is small enough that chance alone accounts for it, there is 95% probability that and deviation from expected is due to chance only. This is in the range of accepted deviation.

MPS Test 2- 31 respondents

Null hypothesis: There is no significant difference between the expected and observed result.

Individuals Observed with perfectionistic Characteristic: 23

Individuals expected with perfectionistic characteristic: 24

$(O^E)^2/E$

$(23-24)^2/24=0.042$

6 Degrees of freedom

P value 0.95 (non-significant)

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Since the p value <0.05, we accept the original hypothesis (24 individuals with perfectionistic characteristic.) The deviation is small enough that chance alone accounts for it, there is 95% probability that and deviation from expected is due to chance only. This is in the range of accepted deviation.

Post Test

40 participants out of 83 initial respondents

3 out of the 6 subscale respondents should change post Relaxation and Imagery Audio Tapes (Concern over mistakes, personal expectations, and doubts about actions.)

Post Test 1 & 2

Athletes participated in a 7 day session after school in the Intel room or in their own home. These athletes listen to 15 each day of "The Athletes Guide to peak Performance Series."

17 out of 20 athletes showed significant changes in the 3 areas predicted

11 out of 20 athletes showed significant changes in the 3 areas predicted

FIX RESULTS

Discussion

Empirical evidence suggests that negative dimensions of perfectionism may be critical antecedents of varsity athletes cite . However, because few studies have systematically examine the nature of the relationship between perfectionism and high school athletes, the present investigation sought to extend research in this area by examining potential psychological mechanisms that would help explain why perfectionistic athletes may be vulnerable to experience of the syndrome. (Hill et al, 2008)

The first purpose of the current investigation was to examine the symptoms of perfectionism and varsity athletes attending high school. It was hypothesized that the majority of the athletes would contain perfectionistic characteristics. An examination of the bivariate correlations provided partial support for this proposition. After receiving relaxation and imagery intervention these athletes showed significant improvement in 3 areas predicted. These 3 areas are concern over mistakes, personal standards, and doubts about action.

These findings provided support for previous research that has found maladaptive forms of perfectionism to be detrimental. (Hall, 2006) However it was found that perfectionistic characteristics undermine athletic sports performance. Moreover within the current sample pattern showed significant changes in the three areas predicted. (Flett & Hewitt, 2005)

It was found that socially prescribed perfectionism was positively associated with all three dimensions predicted. It was expected that self-criticism, concern over mistakes, doubts about actions, and professional standards contributed to high levels of perfectionistic characteristics. (Flett & Hewitt, 2005) (Frost & Henderson, 1991)

For athletes exhibiting high levels of self-oriented perfectionism, successful achievement striving may be undermined by the pursuit of excessive standards and the employment of stringent self-evaluation. (Hall, 2006) When these individuals perceive that they are not meeting their own high standards harsh self-punitive tendencies undermine self-worth and elicit strong negative affect.

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