



DYSPHORIA, LINKING, AND PRE-COMPETITIVE ANXIETY IN NATIONAL LEVEL ATHLETES OF PAKISTAN

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ABSTRACT

Some individuals set abstract, higher-order goals (e.g., happiness) conditionally upon the achievement of specific lower-order goals (e.g., winning gold medal in national championship etc). This process is known as linking or Conditional Goal Setting (Street, 2000). This unhealthy style of goal setting has been directly related to increase in everyday depressive symptoms (dysphoria). Although the relationship between anxiety and depression is well established, little is known about the interaction between linking, anxiety, and depression. The primary aim of this study was to investigate the relationship between general linking, everyday depressive symptoms, and state anxiety in the athletes participating in the 38th National Athletics Championships held at Army Stadium, Rawalpindi, Pakistan during March, 2003. Sports Competitive Anxiety Test (SCAT) was used as a tool for data collection. The sample of the study was "81" Athletes including, six each from 100m, 200m, 400m, 110m (H), 400m (H), Long Jump, Shot Put, Javelin and Discuss, while "10" from 4x 100m, "12" from 4x400m and "5" from High Jump. The SCAT comprised of the "15" related items. All the athletes were requested to respond to each item of the SCAT. The Regression analysis showed that linking was related to increased anxiety and depressive symptoms. The results suggested that the relationship between linking and depression was also mediated by somatic anxiety.



INTRODUCTION

The present study sought to understand how a particular style of goal pursuit called linking was related to every day depressive symptoms and pre-competitive anxiety in Pakistani Athletes. The study was based on goal theory in athletic population. In recent times, much of the goal setting research in sport had been conducted in the area of "motivation orientation". Recent research in clinical psychology has revealed a strong relationship between psychological well-being and a particular type of goal setting called linking (McIntosh, 1996) or Conditional Goal Setting (CGS) (Street, 2000). The theory of linking offered a new explanation for the relationship between goals and depression. Linking theory proposed that certain individuals were vulnerable to depression because they utilized inappropriate strategies to set and pursue life goals (e.g., Winning a sporting contest). Those individuals believed that achievements of goals were necessary prerequisites of the "abstract goals" of happiness and well-being. Linkers were vulnerable to depression because they believed that happiness and wellbeing were achievable in higher order goals. They also believed that happiness goals could only be achieved through the achievement of specific lower order goals. For example, a linker might have believed that they could only attain "the goal" of happiness if they achieve the goal of winning a gold medal in national competition

Linking tends to be described as a general personality trait whereas CGS was seen as pertaining to specific goals (Street, 2000). As opposed to the general trait of linking, CGS suggested that individuals might get engaged in the CGS process in respect to some important goals but not in relation to others. For example, an athlete might value family and



friends but not hold them responsible for their happiness. However, they might believe that they could not be happy unless they achieved a specific sporting goal. In this example, the athlete had conditionally set a goal concerned with their chosen sport. During the process of goal pursuit (i.e. training and preparation) the athlete would only be able to think of progress towards his goal in terms of not yet being happy. This negative self-focus in relation to goal pursuit was akin to rumination. Continued rumination had been found to contribute to increase in depression (Street, 1999). In essence, the linking individual could be called to have "put their happiness on hold" during the process of goal pursuit.

The problem with the linking process was that if the individual did not achieve his goal he might experience disengagement problems due to the importance of the goal. If the individual did achieve his goal he might experience a brief period, would quickly habituate to success; and will then need to set a new goal to link to their happiness. Thus, whether or not an individual achieved a goal, they would spend most of their time ruminating and feeling depressed.

To this point, few research had investigated linking or CGS in relation to specific goal-oriented groups such as athletes. To this end, the research investigates linking in the athletic performance-oriented environment of the Pakistani athletes at National level. It was un-clear from linking theory whether rumination resulting from linking contributed to increase pre-competitive anxiety in athletes. In addition to the relationships between anxiety, linking, and depression were un-clear and also warranted investigation. Certainly, anxiety had been strongly correlated with depression in a number of studies (e.g. Zimmerman et al, 2000). However, the influence of anxiety on the relationship between linking and depression had not so far been investigated. An investigation of these relationships was important in furthering knowledge and



understanding of the psychological factors affecting athletes' well being and sporting performance.

The nature of the relationship between linking and anxiety was not known, so it was hypothesized from linking theory that those who set conditional goals would be more likely to experience high levels of state anxiety just prior to a performance, where a specific overvalued goal may be achieved or lost. It might be that anxiety mediated the relationship between linking and depression. Anxiety might be harmful physiological manifestation of a negative self-focus about the possibilities of goal loss. In the sporting situation high levels of pre-competitive state anxiety were known to be debilitating to performance (Hardy, 1999). Depressed mood had also been shown to affect sporting performance (Lane & Terry. 2000). If linking was related to anxiety and depressed mood in athletes then it might be an important factor in competition performance management.

The research was conducted using participants competing in 38th National Athletics Championship in Pakistan (October, 2003, Rawalpindi). The athletes participating in all the track and field events were tested and evaluated. The aim of the study was to investigate dysphoria as measured by everyday depressive symptoms as a function of linking and state anxiety prior to participation in a major athletic event.

Hypotheses of the Study

1. Athletes who set conditional goals will be significantly less psychologically healthy than those who set conditional goals.
2. Athletes who link will be significantly more likely to experience higher levels of pre-competitive anxiety than those who do not link.



The Study

Participants were male athletes (N=81) competing at National Athletics Championship 2003. The events were 100m (N=6), 200m (N=6), 800m (N=6), 110m Hurdle (N=6), 400m Hurdle (N=6), 4x100m relay (N=10) and 4x400m relay (N=12), High Jump (N=5), Long Jump (N=6), Shot Put (N=6), Discuss Throw (N=6), Javelin (N=6).

Pre-event inventory was administered at the registration area on the day preceding the event. The inventory consisted on the psychological scales described below with demographics. McIntosh's inventory was chosen, as it was developed to explore McIntosh's original linking construct. The inventory consisted of 22 items, thus scores range between 22 (high CGS) and 44 (low CGS). For the sample of the study the scale moderate reliability with an alpha coefficient of 0.66 was derived.

The Centre for Epidemiological study's Depression Inventory (CES-D, Radloff, 1977) was used to measure depression. The CES-D was chosen as it was exclusively designed for the measurement of depression within the general, English-speaking population and is applicable to this age group (Radloff, 1991). It allowed for identification of a large range of depression levels within a normal population, rather than identification of only clinically depressed individuals. The CES-D consisted of 20 items describing feelings (e.g., "I felt that I was just as good as other people"), thoughts (e.g., "I thought my life had been a failure") and behaviors (e.g., "My sleep was restless") which captured the symptoms of depression. For each item participants rated their feelings in the last week on a 4-point scale ranging from 1 (rarely or none of the time, less than one day) 10-4 (most or all of the time, 5-7 days). For



this sample the CES-D proved to be reliable with an alpha coefficient of 0.88. State anxiety was assessed using the Competitive State Anxiety Inventory-2 (CSAI-2, Martens, Burton, Vealey, Bump, & Smith, 1990). This scale was designed to measure the feelings of apprehension and tension that athletes may experience prior to competition. The scale consisted of 18 items and three subscales of Cognitive Anxiety, Somatic Anxiety and Self Confidence. Participants indicated how they felt prior to the competition using a 4-point scale ranging from 1 (not at all) to 4 (very much so). Examples of CSAI-2 items included, "I was concerned about choking under pressure" (cognitive anxiety), "my body felt tensed" (somatic anxiety), and "I was confident that I could meet the challenge" (self confidence) Alpha coefficients for the three subscales in the present study were 0.70 (cognitive anxiety), 0.74, (somatic anxiety), and 0.70 (self confidence) indicating adequate internal consistency of the CSAI-2

RESULTS

Correlation Analysis

A bivariate correlation matrix (Table 1) was constructed to make comparisons between all of the measures used in the study. The main points of interest were significant correlations ($p < 0.01$) between linking and depression, depression and the CSAI-2 subscales (cognitive anxiety, somatic anxiety and self confidence). These subscales were also significantly correlated with linking.



Table-1
Correlation Coefficient Matrix

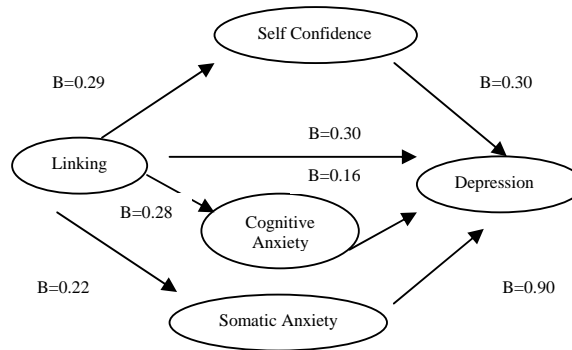
	Depression	Linking	Somatic Anxiety	Cognitive Anxiety	Self Confidence
Depression	1.00	*0.31	*0.54	*0.46	*-0.45
Linking		1.00	*-0.27	*-0.33	*0.30
Somatic Anxiety			1.00	*.73	*-0.63
Cog. Anxiety				1.00	*-0.77
Self Confidence					1.00
N	81	81	81	81	81
M	29.6	37.8	10.8	12.2	19.0
Possible range	20-66	22-44	6-24	6-24	6-24
Actual range	20-66	26-44	6-22	6-20	6-24
SD	8.4	3.5	3.2	3.3	3.3

Regression Analysis

On the bases of theory, hypotheses and the results of the bivariate correlations (Table 1), regression analysis was used to establish relationships between variables. The results of this analysis are shown below. The first important feature was that linking had direct effects on all of the CSAI-2 subscales (cognitive anxiety, $B = -0.28$, $p < 0.03$, somatic anxiety, $B = -0.22$, $p < 0.05$, and self confidence, $B = 0.29$, $p < 0.04$). The figure given below could be seen that linking both a direct ($B = -0.30$, $p < 0.05$) and indirect effect on depression. The indirect effect was through the mediating variables of the CSAI-2, and of somatic anxiety ($B = 0.90$, $p < 0.05$). Further, cognitive anxiety and self-confidence played no role in affecting depressive symptoms.



Figure-1



To summarize, general linkers were more likely to experience higher somatic anxiety, higher cognitive anxiety, lower task confidence and more depressive symptoms than those who did not. There was also evidence of a mediating effect of somatic anxiety such that general linkers were more likely to experience higher somatic anxiety and higher levels of depression. In addition, no evidence of any age, gender, or nationality differences in any of the variables was measured.

Discussion and Finding

The first hypothesis that athletes who showed the general trait of linking were more likely to show depressive symptoms, were supported. The findings clarified the role of goal setting in the onset and maintenance of depression in athletes. The results suggested that athletes might overvalue some sporting goals because they were linked to personal well-being and happiness. Thus, during the process of goal pursuit, the individual may increasingly ruminate about the negative consequences of failure in terms of an absence of happiness and wellbeing.



It is understood that some athletes may not consider their sporting achievements to be personally meaningful in any way. However, the time and personal investment placed on training and competing for the National Championship suggested that majority of athletes considered that their spoiled goals could be given any importance at some level. It was suggested that an athlete who increasingly placed his personal investment in an important sporting goal might spend time thinking about the consequences of goal pursuit and goal achievement. If the athlete believed that happiness and wellbeing were conditional upon goal achievement, any thought of goal pursuit would be accompanied by a belief that the individual was not happy or content. This negative self-focus is described as rumination. Individual conditional goal setters would therefore ruminate about the prospect of not having achieved important sporting goals. An increase was in turn likely to cause an increase in depression levels. Thus, an athlete who made his well-being and personal happiness conditional upon goal attainment became increasingly vulnerable to dysphoria and depression.

The second hypothesis that athletes who displayed the general trait of linking will also experience higher levels of pre-competitive anxiety was also supported. Linking theory proposed that a misconception of happiness being dependent upon sporting achievement would place extreme performance pressure on an athlete. This pressure would be exhibited in increased anxiety levels. All three sub-scales of the CSAI-2 showed significant correlations with linking.

It was interesting to see the relationship between the CSAI-2 anxiety subscales and depression. Although the correlation analysis showed significant correlations between all sub-scales and depression the regression analysis showed somatic anxiety as the only significant predictor of depression.



The results were significant as they suggested that depression occurred as a result of both increase in pre-performance somatic anxiety and a need to perform well in order to achieve happiness (linking). Thus, it was proposed that intervention aimed at decreasing anxiety levels and encouraging fewer conditions of happiness are to be attached to performance outcome which could significantly improve athletes' wellbeing.

Enhanced linking increased both pre-competitive anxiety and depression. The literature supported that the athletes with lower state anxiety and less depressed mood were more likely to perform better than their more anxious and depressed counterparts (Hardy, 1999, Lane & Terry, 2000). Therefore, reducing the tendency to set conditional goals and seeing "success as a journey rather than a destination" should be an important consideration in performance and goal setting in athletic counseling.



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