

A Comparative Study of Psychological Hardiness and Coping Strategies in Female Athlete and Non-Athlete Students

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ABSTRACT: The purpose of the present research was to compare psychological hardiness and coping strategies in female athlete and non-athlete students in Zahedan, Iran. The research is causal-comparative and the sample consists of 90 female athlete students and 90 female non-athlete students (19-30 years of age) who were selected using convenience sampling. Bartone's Psychological Hardiness Scale and Billings and Moos Coping Measures were used for data collection. The findings revealed that the psychological hardiness of athletes was significantly higher than that of the non-athletes ($p < 0.05$). Moreover, a significant difference was observed between the two groups in the components of psychological hardiness ($p < 0.05$). Regarding coping strategies, although the mean scores of the athlete group in the subscales of coping strategies (cognitive, behavioral, avoidance-focused, problem-focused, and emotion-focused) were higher than the scores of the non-athletes, the difference was not statistically significant ($p > 0.05$).

Keywords: psychological hardiness, coping strategies, problem-focused, emotion-focused, avoidance

Introduction

The concepts, factors, and consequences of stress have always received the attention of researchers in behavioral sciences. The extent of stress factors, their detrimental consequences for the health of individuals, and their scientific-research attraction can be other reasons for the importance of stress in the view of psychologists. Human beings have discovered that some events can jeopardize their health, self-possession, welfare, and adaptation. Meanwhile evidence shows that stressful situations do not always lead to illness and lack of adaptation (Anshel, 2001).

Researchers believe that certain moderators interfere with the relationship between stress and illness. Some people possess certain characteristics that increase their internal stress resistance and prevent them from stress and illness (Kobasa, 1979). In addition, human beings do not readily surrender to stress and its consequences. Rather, they have thought of and achieved various strategies for regaining adaptation and equilibrium and preventing or controlling stress. The present research examines one of these internal characteristics, i.e. psychological hardiness, and its relationship with a set of behavioral-cognitive efforts for coping with stress (coping strategies) that are employed for reducing or controlling stress factors or their undesirable emotional consequences.

Stress is one of the concepts that do not have a distinct, clear definition despite their broad usage. This is because of its scientific application. The term stress entered medicine and psychology from engineering. In engineering, stress refers to any external factor that is exerted on an object or living being and changes them. In contrast, from the medical-physiological perspective stress is a general response to undesirable and threatening events. In these two approaches stress is either a stimulus or a response that may lead to illness or disorder in the living being (Folkman, 1980). When people encounter a stressful situation, they make different reactions and efforts. All these efforts are made to adapt (solve or get along

with the problem) and maintain equanimity. Sometimes these efforts are healthy and conscious and sometimes they are not; nonetheless, all the healthy or unhealthy, conscious or unconscious, and cognitive or emotional efforts for controlling, decreasing, or tolerating stress are referred to as coping strategies (Akbarzadeh, 1997).

Thus, people must be able to adopt effective strategies for coping with stress. Lazarus and Folkman (1984) define coping strategies as a process characterized by internal and external demands, an active process for responding to a stimulus that is either threatening or requires the investment of an individual's resources. In fact, a coping strategy is not a fixed state or personal trait, but an interactive process that is constantly changed and modified as a result of experience. Coping strategies can (1) eliminate the stressor or the undesirable factor, (2) change the appraisal of the individual regarding the stressful event, (3) control or reduce the unremitting effects of stress (Folkman, 1990; Akbarzadeh, 1997). Roth (1986) believe that people use three styles of coping with stress: (1) problem-focused coping, (2) emotion-focused coping, (3) and avoidance-focused coping.

There is a term in psychology called "psychological hardiness" that pertains to people who are resistant to stress. Roth and Cohen (1986) suggest that approach coping is preferable when (a) when the situation is controllable, (b) when the source of stress is known to the person, or (c) when outcome measures are long-term. Approach coping is an orientation towards situation-relevant characteristics, while ignoring distracting, irrelevant information. According to Roth and Cohen (1986), avoidance coping is more effective when (a) emotional resources are limited (e.g. low confidence or low self-esteem), (b) the source of stress is not clear, (c) the situation is uncontrollable, or (d) outcome measures are immediate or short-term.

Psychological hardiness is a multi-component structure that is possessed by all people to varying degrees and includes three components: commitment, control, and challenge (Kiamarsi et al., 1998; Ghorbani, 1995; Anshel, 2001; and Kashani, 2011). Hardy people have understood the meaning, value, importance, and purpose of themselves, their job, their family, and their life in general. They give more credence to effort and action than chance and believe they can manipulate life events. They possess an internal resistance resource and consider the positive and negative events life as the consequence of their actions. Further, for hardy people change and transformation is a fixed law of life and changes are opportunities for learning and growth rather than a threat to their safety (Kiamarsi et al., 1998; Ghorbani, 1995). Hardy individuals do not appraise events as risky, but positive and controllable (Anshel, 2001; Ghorbani, 1995).

Most researchers believe that sport situations require spontaneous decisions and avoidance coping techniques protect the athlete against interfering thought and actions. On the other hand, if the attention of an athlete is distracted by internal or external events (characteristics of approach coping), technical and tactical skills will be affected (Roth and Cohen, 1986). Anshel came to similar conclusions regarding approach and avoidance coping in young student athletes. Evaluating the psychological characteristics Olympics champions, Anshel (2001) defined psychological hardiness as a mental skill that can play a significant role in the performance of athletes. Roth and Cohen (1986) studied the effects of psychological hardiness and its components and skill on competitive anxiety and self-confidence. Their findings support the hypothesis that elite athletes have a higher level of hardiness. Stress and coping was introduced in the 1980s and received much attention due to its relevance to cognitive revolution in psychology. The huge body of research on this issue supports the mediating role of behavior or coping in the relationship between stress and adaptation outcomes such as poor psychological health and physical symptoms (Kobasa, 1979).

One of the essential principles for physical and mental freshness is engaging and persevering in sport activities. Sport can reduce many stresses in a person and provide them with a vivacious life. Roth is of the opinion that regular and long-term participation in physical exercises changes personality traits such as anxiety and depression and prepares the person with a peaceful and happy life. Thus, sport can act as a strategy for reducing stress. Research has shown that half of athletes in Isfahan City apply problem-focused coping strategy for dealing with stress. They are, in fact, using the best strategy for coping with stress. Lazarus and Folkman (1984) believe that people who use problem-focused coping have high optimism and self-esteem and are better able to control stress. Therefore they have better and more effective performance and they can provide themselves with chances to succeed. Other studies have shown that almost one third of athletes use avoidance-focused coping strategy. Since engaging in sports is a coping strategy, it appears that some athletes use sport as a tool for reducing their stress. In this regard Kobasa (1979) believes that some people choose sport as a means for reducing tension and stress and although this is not the best strategy, it is more effective than emotion-focused coping. Almost 16 percent of athletes use emotion-focused coping strategy, indicating their lack of control over incoming stressors.

Lazarus and Folkman (1984) believe that people use emotion-focused coping when they are unable to change or control the situation. Therefore, they try to relax themselves by releasing pent-up emotions. Psychological hardiness protects the individual against the unremitting effects of stress, especially in highly stressful situations. Hardiness is a better predictor of mental health than physical health. Despite the importance of stress coping styles in sports due to their direct effect on the performance of athletes, little research has been carried out in this regard. Therefore, the purpose of the present research is to examine the relationship between psychological hardiness and coping strategies in female athlete and non-athlete students.

Methodology

Population

The population of the research consists of all the female students of the Faculty of Physical Education (18-30 years old) of the Islamic Azad University, Zahedan Branch who were studying at the period 2010-2011 (a total number of 350 students).

Sample

According to the pilot study, the sample size was estimated to be 180 students of whom 90 were athletes and 90 were non-athletes. The students were selected using convenience sampling from the female students of IAU.

Instruments

Bartone's Psychological Hardiness Scale and Billings and Moos Coping Measures were used for data collection. The total time for answering all the questions was about 30 minutes. The Hardiness Scale included 50 questions and Coping Measures inventory consisted of 19 questions. The former evaluates challenge, commitment, control, and finally the general hardiness and the latter measures cognitive, behavioral, avoidance-focused, problem-focused, and emotion-focused coping strategies.

Results

Mean and standard deviation of the scores of the students in psychological hardiness and its subscales (control, commitment, and challenge) are presented in table 1.

Table 1: Mean and standard deviation of scores in psychological hardiness and its subscales

Group	Component	Mean	Standard Deviation
Athlete	Commitment	0.693	0.133
	Control	0.666	0.121
	Challenge	0.499	0.111
	Hardiness	1.511	0.502
Non-Athlete	Commitment	0.662	0.131
	Control	0.639	0.121
	Challenge	0.427	0.091
	Hardiness	1.177	0.384

Mean and standard deviation of the scores of the subjects in coping measures and its subscales are presented in table 2.

Table 2: Mean and standard deviation of scores in coping measures and its subscales

Group	Component	Mean	Standard Deviation
Athlete	Cognitive	19.800	2.849
	Behavioral	18.333	3.097
	Avoidance-focused	14.977	2.967
	Emotion-focused	18.522	3.148
	Problem-focused	34.622	4.886
Non-Athlete	Cognitive	19.252	2.862
	Behavioral	17.897	2.733
	Avoidance-focused	14.797	2.865
	Emotion-focused	18.488	2.908
	Problem-focused	33.367	4.749

T-test for independent samples was applied to compare female athlete and non-athlete students in terms of psychological hardiness and its subscales as well as coping measures and its subscales. The results are presented in table 3.

Table 3: The results of t-test for comparing the means of independent samples (athletes and non-athletes)

Variable	t	Degree of Freedom	Significance Level
Commitment	1.494	158	0.137
Challenge	4.274	152	0.000
Control	1.442	160	0.151
Hardiness	2.324	178	0.021
Cognitive	1.274	175	0.204
Behavioral	0.994	176	0.322
Avoidance-focused	0.413	177	0.680
Problem-focused	1.731	175	0.085
Emotion-focused	-0.074	176	0.941

As can be seen in table 3, the difference of the means of athletes and non-athletes is only significant in challenge and hardiness ($p < 0.05$) and the difference between the groups is not statistically significant in other components ($p > 0.05$).

Discussion and Conclusion

The results of the present research show that psychological hardiness of athletes is significantly higher than that of the non-athletes ($p < 0.05$). This finding is consistent with the results of Anshel (2001) and Kashani (2011). Perhaps years of competitive experience and higher physical fitness can be the reasons that justify this finding of the research. Also a significant difference was observed between the athletes and non-athletes in terms of challenge as a component of psychological hardiness ($p < 0.05$) which is in line with the results of Kiamarsi (1998) Agha-Mohammadian (1999). Athletes can considerably control negative energies and despite the many changes they encounter they can constantly continue their growth. In addition, no significant difference was observed between the two groups in terms of coping measures and its components which is consistent with the results of Agha-Mohammadian (1999) and inconsistent with the results of Agha-Yusefi (2000). The possible reasons for such an inconsistency are gender and occupation of the subjects. Psychological hardiness is an inherited or developed mental property that predicts the success of athletes. Being placed under difficult conditions (competitions and training) can developed psychological hardiness in athletes. Various factors such as time, experience, age, exercise, nature of the sport, and personal differences can play a role in formation of desirable mental skills that need to be individually examined. Since using coping strategies against stressful situations plays an essential role in mental and physical health, the higher mean obtained by the athlete group is justifiable. However, since the sample of the present research consisted of students and students are homogeneous in terms of the training they receive, the lack of significance in some components becomes noteworthy.

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