

Sources of Stress and Coping Mechanisms among Under-Twenty High School Athletes: A Study Conducted at the Zimbabwe National Youth Games (Znyg) Manicaland 2013 Chapter.

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ABSTRACT

The world today is replete with stressful situations whether at home or in away-from home situations. To live meaningful lives, people should learn to cope with the stress which has become part of everyday life. Without adequate coping strategies there is threat to health which may even lead to premature death. The aim of the study was establishing sources of stress and coping strategies among high school athletes. A population of 183 Zimbabwe National Youth Games Manicaland Chapter was available for this study. Fifty athletes actually took part in this study. Data collection was by a structured questionnaire. Findings revealed the most stressful factors among high school athletes to be injury and illness, pressure of competition, the referee and conflict with the coach. The least perceived stress originated from spectators. The athletes identified almost the same extent of the use of the approach and avoidant styles as stress coping strategies. The findings also recorded a good number of respondents who were not able to specify whether they were using approach or avoidance techniques in handling stress in sports. The findings in this study were generally consistent with the finding of researchers in other countries. The study recommends the need for sports psychologist to man ZNYG athletes to help them develop stress coping mechanisms. It would also be helpful if coaches and trainers in high schools were also exposed to skills that would enable them to assist the young athletes with any necessary stress-coping mechanisms.

Keywords: Stress, coping mechanisms, high school athletes

INTRODUCTION

Most aspects of human life have their pleasurable side as well as their downside. Stress is common to all life and is a phenomenon that is known to many people as they strive to achieve worthwhile goals in their lives. Stress has been conceptualized as the effect of demands that go beyond one's perceived ability to cope (Lazarus & Folkman, 1984). A stressful situation arises where a result is both important and doubtful and the adequacy of coping resources is also doubtful. The explanation by Lazarus & Folkman (1984) is echoed by Rabin, Feldman & Kaplan (1999) who posit that stress is a condition in which there is a marked perceived discrepancy between demand of a situation on an individual and that individual's ability to respond. Martens, Vealey & Burton (1990) explain that stress can be viewed as a stimulus, an intervening variable and as a response. As a stimulus it is a precipitator of a condition; as an intervening variable it is mediator and as a response, it is a type of behaviour.

Prior to the work of Martens, Vealey & Burton (1990), Lazarus & Folkman (1984) had pointed out for clarity that stress was not in the stimulus alone or in the response alone but in the stimulus-response connection. This means that sports persons may be subjected to the same level of stress but some will rise to the occasion in the most stressful competitions while

other athletes may be overwhelmed even by occasions that too many people do not seem overly stressful. This difference in the response of the athletes to what seems to be stimuli of the same intensity seems to originate from the cognitive appraisal of the stressor that is made by the athlete. Anshel & Wells (2000) explained that cognitive appraisal determined if the external and internal stimulus is immaterial, moderate or acute and the athlete works out coping strategy depending on the result of the cognitive appraisal (Anshel, Jamieson & Raviv, 2001).

Stress is naturally associated with sports (Anshel, 2001; Anshel & Delaney, 2001; Anshel & Wells, 2000; Gilbert, Gilbert & Morawski, 2007). Stress that affects athletes can be of various types. First, it can be acute i.e. time-limited as in waiting to participate in an event that could make or break one's career. Secondly, stress could be in the form of sequences which are 'a series of events that occur over an extended period of time as a result of an initiating event. Athletes could be affected over extended times by protracted conflict in the family. Thirdly, stress can be chronic which means that it is intermittent i.e. it can occur once a day, a week, a month and so on. Chronic stress may persist over a long time such as in the case of injury or disability for an athlete (Elliot & Eisdorfer, 1982).

All told, stress is a relationship between the environment and a particular individual who appraises that environment as taxing or exceeding his or her resources and endangering his/her well-being (Lazarus & Folkman, 1984). The appraisal process is critically important to the perception of stress and it occurs at two levels. At the first level, it is an evaluative process where a person decides on whether he/she is in trouble or in a problem of some kind. The first level is an attempt to figure out the extent and nature of the stressor. The primary appraisal can lead to a decision that the 'stressor' is irrelevant, or it is positive or that it is stressful. An athlete from a rural school may for instance perceive that the use of spiked shoes by one of the competitors has no bearing on that competitor's ultimate ability to win a race. Another may perceive that competing against some big names is what he/she needs to rise to the grand occasion while for another coming from a smaller school or being shorter in stature could completely paralyse that athlete.

At the secondary level appraisal is the evaluation of what can be done to manage the situation. The individual takes into account the resources that are available for coping with the stressful situation. The perception of the resources that are available will also influence the perception of the potential harm from the stressful situation and what strategy will be of choice in attempting to cope with the stressful factor(s) (Lazarus & Folkman, 1984).

Participation in sport carries the advantages of acceptance and status in the peer group as well as social competence and enhanced social worth (Donaldson & Ronan, 2006), access to peer-group affirmation (Turman, 2003), lower rating on social and behavioural problems (Harrison & Narayan, 2003). Participants in sport are more exposed to interest, enjoyment, excitement and wider social integration and mental health (Armstrong & Oomen-Early, 2009; Bailey, 2006; Mageau & Vallerand, 2003; Nucci & Young-Shin, 2005; Steptoe & Butler, 1996). In the way just stated, participation in sports is a buffer against certain social ills, conflicts and behaviours (Wilson & Pritchard, 2005). Sport is quite often cited as a technique for stress management (Chireshe & Mapfumo, 2003). Athletes, however, often pay a very high price for all these benefits (Wilson & Pritchard, 2005).

A basic problem may be in the form of competing identities where the excelling sports person may be looked up to in some circumstances while being stigmatised as lacking in motivation and ability in class and any time given by teachers to supporting the athlete in class is perceived as unnecessary favouritism (Engstrom & Sedlacek, 1991; Simons, Bosworth, Fujita, & Jensen, 1999; Yopyk & Prentice, 2005).

Sports persons at whatever level can expect to be exposed to a tremendous amount of stress both physically and psychologically well beyond the technical and tactical skills which they have been trained to develop by their coaches. Often the competitive athlete is stressed by the nature of the sport and may be too stressed to continue with athletics. A stressed athlete has also been reported to be injury-prone and to take longer than normal to return to activity after injury (Gould, Feltz, Horn & Weiss, 1982; Nash, 1987). Many human activities are carried out in private but competitive sport is a situation where ability is publicly tested, scrutinized and evaluated (Miller-Tait Spriddle, 2004). The evaluation which may be intensely critical may be shouted and delivered to the ear of the athlete.

Stress for the athlete has been found to stem from a number of sources. In individual and team sports, there may be unpleasant inputs from the peers, fans, coaches, pain and injury; performance anxiety, self-doubts about talent, team selection, relationships with the coach, pressure to win, problems with managing time, fear of failure and problems with self-esteem (Anshel, 1996; Anshel & Kaissidis, 1997; Wilson, 2009). For adolescents, anxiety around possible performance failure was found to be the leading stressors as well as 'physical errors' (Anshel & Delaney, 2001; Gilbert, Gilbert, & Morawski, 2007; Nicholls & Polman, 2007). Adolescents are also particularly affected by playing in unfamiliar settings (Dunn & Nielsen, 1996; Forrest, 2008), fear of 'choking' in late-game situations (Wang, Marchant & Morris, 2004), playing against stronger opponents and observing opponents that play well (Dunn & Nielsen, 1996; Nicholls & Polman, 2007).

These factors create an interaction of multiple stressors that have a negative effect on the student-athlete's well-being. Negative physical symptoms such as fatigue, headaches, insomnia and problems with digestion have been found to associate with overtraining, physical and psychological pressure (Bompa, 1983; Budgett, 1990; Giaccobi, Lynn, Wetherington, Jenkins, Bodendorf, & Langley, 2009; Kellman, 2010; Kraemer & Nindi, 1998; Kuipers & Keizer, 1988; Wilson & Pritchard, 2005). In addition for those who are in the early years of high school, there is a real fear that they will lose the stardom that they may have enjoyed in primary school (Papanikolaou, Nkolaidis, Patsiarouras & Alexopoulos, 2003).

In the United States of America there has been extensive research in the area of stress in sport with the massive expansion of Sports Psychology (Anshel & Anderson, 2002; Anshel & Sutarso, 2007; Gaston-Gayles, 2005; O'Neil & Steyn, 2007; Weinberg & Gould, 2003; Weston & Greenlees, 2007). The studies cited here were carried out in a wide variety of settings (Noblet & Gifford, 2002; O'Neil & Steyn, 2007; Prentice-Diaz & Anshel, 2005; Thelwell et al., 2007; White, 2008).

The issue of coping styles and strategies has received as much attention as has stress. The attempt has been to identify stress experiences of athletes as well as the coping style frameworks employed by athletes in different types of sport (Anshel & Si, 2008; McKay, et al., 2008) Coping is a significant aspect of sport Psychology, if for the reason that the high levels of stress without coping mechanisms will lead to underperformance, burnout, illness and even departure from competitive sport. Coping itself has been defined as the 'constantly changing cognitive and behavioural efforts to manage specific internal and/or external demands that are appraised as taxing or exceeding the resources of a person' (Lazarus & Folkman, 1984:141). White (2008) parsimoniously states that coping is the process of dealing with stress.

There are a number of coping styles which are available for athletes and these include relaxation, visualization, positive thinking, negative thought-stopping and confidence enhancement (Hann, 2000). Coping mechanisms may also need to be directed to seven areas

of need for the athlete and these include physical demands, psychological demands, environmental demands, expectations and pressure, relationship issues in sport and live direction issues as well as others that were not reported (Reilly & Williams, 2003). Each demand category appeared to attract particular coping strategies and techniques. Within physical demands, rational thinking, pre-competition mental preparation, changing to healthy attitudes and behaviours, training hard and cleverly were the stress coping mechanisms of choice. Within high expectation demands, positive focus and orientation, hard training, rational thinking, positive self-talk, social support, pre-competition mental preparation and anxiety management were also the coping techniques of choice (Reilly & Williams, 2003)

STATEMENT OF THE PROBLEM

It is clear that stress is central to the life and work of any athlete whatever the level at which the athlete is competing. What is more important too is the extent to which the athlete copes with the stress that he/she faces in any competitive situation. Zimbabwe is one country in which there are a variety of athletics competitions in primary, secondary and higher education. It seems that little work has been done to establish the specific levels of stress that are suffered by athletes and the specific ways in which these athletes cope with the stress.

Beyond educational institutions, Zimbabwean teams and individuals have tended to underperform particularly in soccer and that may have to do with the manner in which the teams are overwhelmed by the stress to which they are exposed. Recently, there was a good opportunity for the national soccer team to beat Angola and proceed to the Association of African Football finals in South Africa in 2013 but the team failed to take advantage of a 3-1 lead which could reflect the team's incapacity to handle the competitive stress that had built up in that game. It is, perhaps, possible to trace this under performance to lack of evidence based practices of handling stress among athletes right from high school.

At the same time there is need for research to establish the stress and coping mechanisms in high schools where there are large numbers of promising young athletes many of whom do not continue to participate in sport as they grow older. A study such as the present one will be useful to the athletes in that it will be a source of information for the trainers many of whom do not have formal training in athletics. Similarly, this study will be one of the very first ones to approach stress and coping through empirical research and could lay the foundations for future investigations that can do much to inform policy and practice in athletics in schools.

THE AIMS OF THE STUDY

This study aims to establish the factors of stress that affect athletes in high school and the coping mechanisms that are used by the athletes.

THE OBJECTIVES OF THE STUDY

This study aims to:

1. establish the stressors that are confronted by the athletes in high schools.
2. the coping mechanisms that the athletes employ to reduce/manage/eliminate the stressors that affect them.
3. identify the stressors that are perceived by high school athletes by gender.
4. identify the coping mechanisms that are employed by high school athletes by gender.

METHOD

Design

This study was conducted in the quantitative design. The quantitative design was employed because it was deemed more effective in collecting data that had to do with the number of nominations of the various kinds of stressors that were faced by the participants in this study and the coping mechanisms that were employed. Being a pioneer study in sports-related stress and coping it was deemed necessary to keep the study as simple as possible to give a broad overview of the stress factors and coping mechanism as a basis for future research. The quantitative approach therefore enabled the researchers to establish the frequencies of the various kinds of stress and coping mechanisms and to compare these frequencies across gender.

Participants and Setting

The under- twenty high school athletes in the Manicaland 2013 Chapter of the Zimbabwe National Youth Games (ZNYG) are high school elite athletes and others who have left high school and have joined sports clubs. These high school athletes had competed and won in high school interprovincial competitions. The disciplines represented were basketball, netball, handball, football, volleyball, boxing, and tennis. The total number of participants in this study was fifty, twenty-five males and twenty-five females. One questionnaire was, however, not returned by one female athlete so that the effective total number of participants was 49. One hundred and eighty-three total high school athletes in Manicaland province were possible participants in this study.

Sample

Of the one hundred and eighty-three possible participants for this study, the researchers made a decision to work with only about a third of that population (183) that is 50 athletes (25 females and 25 males) composed of athletics (8), basketball (12), netball (3), handball (9), football (3), volleyball (13), boxing (1). After explaining the study to the potential participants, athletes were informed that only 50 participants 25 per gender were required and those who accepted participation were asked to complete the questionnaire in a separate room.

Instrumentation

A structured questionnaire was also helpful in working with participants who could meet difficulties in expressing themselves clearly if they had been asked to respond to open questions in unstructured questionnaires. At the same time data from the structured questionnaire was expected to be a basis for further studies in the future.

The questionnaire was adapted from the survey that measured sources of stress and coping styles for high school athletes. The Sources of Stress Questionnaire is a 5 item, self reporting survey developed to measure sources of stress using a 5 –point Likert scale ranging from 1 (Not at all worried) to 5 (Very worried). The survey items were derived from previous research related to sport (Anshel & Anderson, 2002; Anshel & Sutarso, 2007; Anshel & Si, 2008; McKay, Niven, Lavalley, & White, 2008; O’Neil & Steyn 2007; Puente- Diaz & Anshel, 2008; Thelwell, Weston, & Greenlees, 2007; Vredenburg, 2007; White, 2008). The 5 items represented 5 sources of stress in sport which were stress of injury and illness, pressure of competition, conflict with the coach, the referee and the spectators.

The Survey on Coping Styles in Sport Inventory (CSSI Anshel & Si (2008) was adopted as is. The CSSI is a 16 item survey that measures two styles of coping, approach and avoidance. Approach coping describes the active attempts at resolving and managing the stressful

situation (Anshel & Si, 2008; Krohne, 1996). Sample approach coping items were, "I decided to work harder in the sport event" and "I became more aggressive". Avoidance coping is orientation that results in the ignoring the source of the threat altogether (Anshel & Si, 2008; Krohne, 1996). Sample avoidance coping style items were, "I just thought about something else," "I quickly forgot about it and moved forward," and "I immediately turned my attention to next task". The athletes were asked to identify their usual reaction to each stressful event they had often experienced during a sport contest on a 5- point Likert- type scale ranging from 1 (Agree) to 5- (Strongly disagree).

Validity and reliability for the sources of stress and CSSI have been demonstrated through different studies such as Anshel & Si (2008); Anshel & Sutarso, 2007; Mckay, et al., 2008; Puente- Diaz & Anshel, 2005).

This instrument was adopted to enable comparison between Anshel & Si's (2008) results to those of the under-twenty high school athletes in Manicaland. The researchers agreed that the instrument be pilot tested with no alterations except simplified language that the high school athletes would understand better.

Pilot Study

The questionnaire was pilot tested with ten high school athletes who were not selected as part of the ZNYG teams. This pilot test was done to ensure that data collected would not present any difficulties to the respondents. There were no major modifications on the questionnaire as a result of the pilot testing.

Data Collection Procedure

Permission to work in schools in 2011, 2012 and 2013 was obtained from the Ministry of Education, Sports, Arts and Culture. The assistant researcher approached the team leaders at the Zimbabwe National Youth Games Manicaland chapter camp to allow her to address the coaches who then addressed their athletes on the topic of the study. The researcher then informed the high school athletes that they would complete a self administered questionnaire if they were willing to participate in the study. The prospective participants were informed that the information they would give would not be used for purposes beyond the study. No other person beside the researchers would have access to the completed questionnaires. The identities of the participants who had completed the questionnaires would not be revealed to anyone. To make sure that the identities of participants were protected, the participants were requested not to write their names on the questionnaires that they were completing. It was stressed to the prospective participants that taking part in the study was entirely voluntary and those who felt that they wished to withdraw from the study at any time during the progress of the study were free to do so. The researchers took the participants into a separate large room where they explained the purpose of the study again to those who had agreed to participate. In addition, stress or worry which was the key concept in the study was explained so that the participants would understand it clearly and thus enable to answer the questionnaire with more knowledge. Participants were given at least 30 minutes for the process. The completion of the questionnaires was within the stipulated time. Forty-nine questionnaires were returned. The study was carried out a day before the athletes were due to compete the Zimbabwe National Youth Games.

DATA ANALYSIS STRATEGY

Analysis of data was quantitative because all questions were closed. Data was presented on graphs showing frequencies of responses.

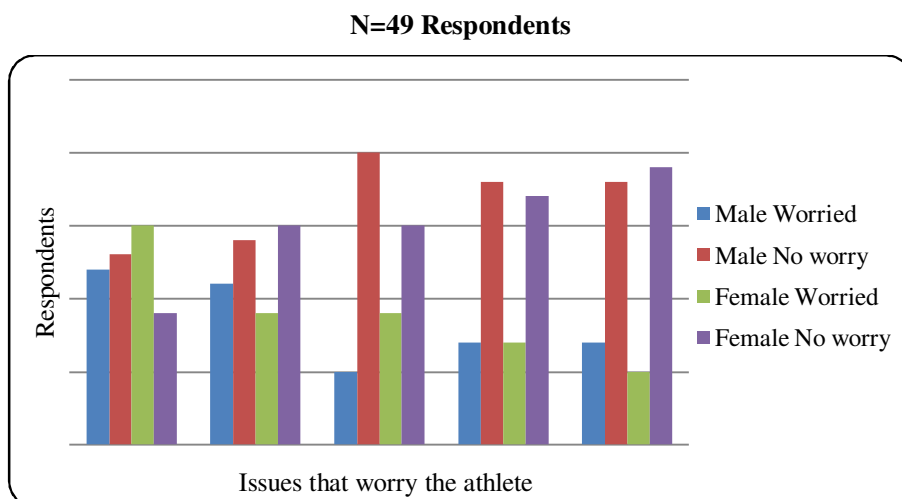


Figure 1. Sources of stress among under-twenty high school athletes

Figure 1 shows that the issue of injury and illness was the most reported source of worry among the high school athletes in the ZNYG Manicaland chapter. More girls than boys are worried by that factor. The second issue that worried the athletes is pressure of competition. On this factor more boys are worried than girls. The referee and conflict with the coach were the third issue that stressed the athletes towards ZNYG competition while the spectators were the least perceived source of worry by both sex.

Stress Coping Mechanisms

The second task of the study was to establish the stress coping mechanisms used by the athletes at the ZNYG Manicaland chapter. The findings relevant to this objective are presented in figure 2 below.

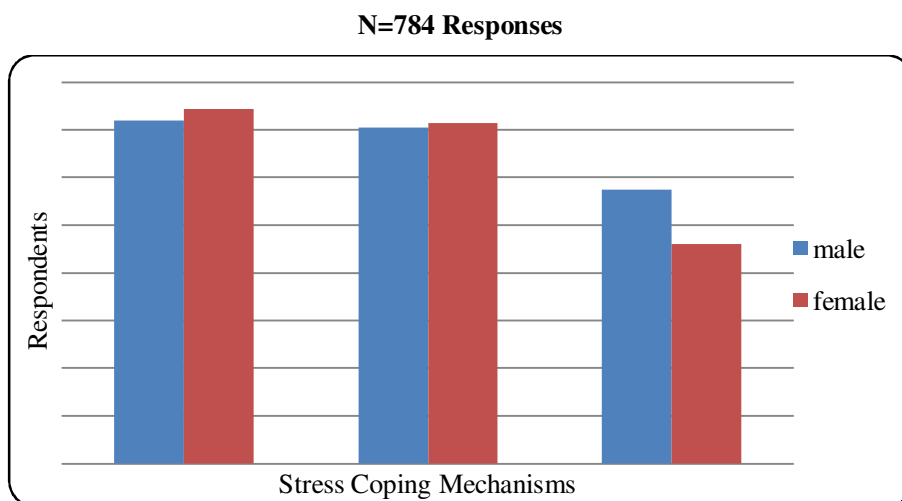


Figure 2. Stress coping mechanisms used by under –twenty high school athletes.

Figure 2 shows the number of athletes who reported items of the coping survey. All items of the coping survey have been grouped into two styles of coping, approach and avoidance.

DISCUSSION

The aim of this study was to establish the sources of stress and coping mechanisms among the high school athletes in the ZNYG Manicaland chapter.

With reference to sources of stress or worry, the results revealed that injury and illness is the most frequent sources of worry. That fear of injury and illness was the most mentioned stress factor was consistent with previous studies in which injury and illness were a well-recognised source of stress (Abedalhafiz, Altahayneh and Al-haliq, 2010). In their study on Jordanian student athletes Abedalhafiz et al., (2010) explained that injury and illness were sources of worry because sports are physically demanding and increase potential injury risks. This researcher adds another explanation that it is possible that most ZNYG athletes come from schools and they do not have medical insurance cover and they can only access medical assistance from public institutions which may not give superior attention. At the same time, students' education is much more important than participation in sports. When high school athletes are injured there may be not special provision made for them to catch up on any academic work that is lost.

The finding relating to fear of injury and illness is inconsistent with other previous studies in which referees performance and treatment were found to be more stressful than fear of injury and illness sources (Anshel & Si, 2008). The finding here that puts fear of injury and illness in the fore is also inconsistent with Puente-Diaz and Anshel, (2005) who reported that receiving negative comments from coaches and relatives and opponent cheating were most stressful events. However, Abedalhafiz et al., (2010), clearly found that the leading stressor was fear of injury and illness which is a finding that is also clearly confirmed in the present study.

That pressure of competition was the second most stressful factor in the present study was consistent with the findings of Abedalhafiz et al (2010). Abedalhafiz et al's findings were confirmations of prior finding by other researchers (McKay et al., 2008; Thelwell et al., 2007).

The finding that coaches were a leading stress factor was reached by Anshel & Si, 2008; Puente-Diaz & Anshel, 2005. This very finding was confirmed in the present study where close to one third of the respondents identified coaches as leading stressors.

The same level of response was shown for referees (as coaches) as stressors, which was also a finding reached prior to this study by Anshel & Si, 2008; Thelwell et al., 2007.

The little emphasis as a stress factor is consistent with the findings of Abedalhafiz et al., (2010) who found that spectators were the least mentioned stressor among Jordanian athletes. The same findings were arrived at by McKay et al., 2008; Noblet & Gifford, 2002; Puente-Diaz & Anshel, 2005.

O'Neil & Steyn (2007)'s study of South African athletes found that most frequently used strategy to cope with stress was to remove the source of the stress (approach). Taking the male and female athletes together Abedalhafiz et al., (2010) found clearly that approach style was clearly the most often cited strategy for coping with stress. The present study was not a complete confirmation of the findings of the two researchers cited here. The present finding found almost the same extent of the use of approach and avoidant styles. This study recorded, however, that there were a good number of respondents who were not able to specify whether they were using approach or avoidance techniques in handling stress.

The use of avoidance strategies found in this study was consistent with the findings of Anshel & Si (2008) in their work among Chinese athletes. The use of the avoidance coping techniques was deemed to be more adaptive than approach style because it allowed the athlete to take off their minds from the stressful factors and to concentrate on the game at game at hand (Anshel & Si, 2008; Krohne, 1996; Krohne & Heindel, 1988).

CONCLUSIONS

From the findings here it is possible to reach several conclusions. The first is that sources of stress found among the ZNYG Manicaland chapter athletes are the same found among athletes around the world. The sources include injury and illness, pressure of completion, the coach, referee and the spectators. Stress on the ZNYG athletes need to be controlled or eradicated lest it hinders sports excellence. On coping styles it can be concluded that most of the ZNYG athletes use the approach style during competition time. The Zimbabwe National Youth Games athletes need a high level of awareness on stress management.

RECOMMENDATIONS

The high school athletes are exposed to stress in Zimbabwe. Therefore, the following recommendations should be considered:

Policies on health assurance should be prepared to protect the high school athlete from stress on their health during sports. There is need for sports psychologist to man ZNYG athletes to help them develop stress coping mechanisms. There is also need by the Ministry of Sports and Culture, Sports Associations and schools to examine sources of stress and coping strategies from different sports so that practioners can be more knowledgeable and be able to use adaptive intervention strategies when stress is observed among athletes or in preventing stress among the athletes.

Such knowledge would also provide useful information on how and why some individuals adapt to stressful situations, while others find it difficult, and in some cases impossible to do so.

There is clearly more need for research in the area of sports in general and in sports stress in particular, in what seems to be a virgin research area in Zimbabwe academe.

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