

Competition and stress: An analysis from high performance Brazilian women's elite volleyball players

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Abstract

The Brazilian women's volleyball has achieved a prominent position in recent years winning several titles. With the increasing performance, media interest the, pressure from sponsors and accountability for results and remain highlighted increased, favoring the possibility of stress episodes of emergence in athletes, which makes objective of this study. Therefore, the research is a descriptive model, obtaining as main objective to analyze the situations that cause stress in female volleyball athletes of high income. Thirteen professional athletes of the adult Brazilian team female (n=13, age average: 28.53±3.55) in which the questionnaire to identify symptoms of stress and the data were analyzed quantitatively. The results showed that eighteen different situations cause stress intensities. However, the two situations such as making mistakes that cause the defeat of the team and play in bad physical condition, injured or sick, had as median 05 namely, the more stressful the athletes were considered. These results allowed us to measure the importance of analyzing the situations that cause stress female volleyball athletes warning for care that should take time to measure the emotional control as well as valuing a lot more hits than the mistakes.

Keywords: volleyball, stress, women, sport high performance

1. Introduction

In Brazil the stress has been the subject of many questions related to sport performance (Hirota *et al.*, 2008; Hirota *et al.*, 2010; Hirota *et al.*, 2011; Santos *et al.*, 2012; Hirota *et al.*, 2014; Anjos *et al.*, 2015) [2, 9-12, 17].

Weinberg and Gould (2001) [19] describe the stress as a process containing four stages. First, the individual and placed a demand that can be physical or psychological, after the second stage is the perception regarding to the demand, which is different for each individual. Third step response occurs as demand lodged, and the last stage and the behavior of individual the stress caused by this process, so a continuous cycle especially when the answer is negative.

Hirota *et al.* (2010) [10] says that the sport universe can lead decisive factors for the emergence of stress, since as a result to internal and external conditions that involve one athlete, several factors coming from the environment in which the individual are in, and it may represent potential incentives that causes stresses.

The sporting moment that the athlete experiences in the front of your crowd or opposing, collective or individual sport, the athlete have physical contact or not with the opponent, gender and age can affect the athlete's performance in the game. Volleyball is an extremely dynamic sport that requires motor skill, precision and great regularity in the performance of its grounds, domain different combinations of moves and quick thinking, featuring a set of requirements that can generate very stressful situations (Bueno and Di Bonifácio, 2007) [3].

To Noce and Samulski (2002) [16], in high-level competitive volleyball, players often have to deal with situations that cause stress, and success depends on overcoming these situations. Nascimento Jr. *et al.*, (2014) [14] emphasize that women and Liberos are more susceptible to precompetitive psychological stress. For De Rose Jr. (2002) [6] any human activity, sport can also be a stress-generating potential if it is not appropriate to

the needs and potential of the practitioner, especially if this is unprepared and not ready to face complicated situations inherent to competitive process. Under these definitions, have emerged the following questions: how the players behave when their performance is negative in a competitive situation? How to react in the attitudes of companions? What influence the attitudes of technicians in the stress level of the athletes? Therefore, have the perception of performance in sport, it may be important for the athlete to make an analysis of yourself and point out the strengths and weaknesses that should be improve. This positive or negative perception may be important for the athlete, so that it can minimize the stressful effects that competitive sport has for the athlete (Almeida and Silverio, 2012) [1]. What differentiates an athlete of others are your psychological skills. The high performance is characterize by intense pressure because athletes are always looking for the best performance. The successful athlete is the one who has the best ability to cope with stressful situations on a daily basis. (Marques and Rosado, 2005) [15]. Thus, the key objective of this research was to analyze the situations that cause stress in female volleyball athletes of high performance.

2. Materials and methods

This paper is characterize as a descriptive research model in which we had to analyze the situations of stress in high performance women volleyball players (Gil, 1995) [8].

Sample

Participated in the present work 13 professional athletes (n:13, age average: 28.53±3.55; variation coefficient 12.43% showing homogeneity regarding age) of the adult Brazilian team female with a minimum age of 21 years and maximum 35 years that plays volleyball over five years. Participants are relevant athletes since have participated in these tournaments in order of importance: World Championship (6 athletes)

Olympics Games (4 athletes), Pan American (2 athletes), South American (1 athlete). They were called in the first half of 2015 and in July of that year were divided for the participation of two important and simultaneous championships: XVII Pan American Games in Toronto - Canada, day 10 to day 26, obtaining as a result the second place in the final. In addition, the final stage of the Grand Prix Volleyball in Ohama in the United States, from 22 to 26 July, obtaining the same result. Although not part of the research objectives, a particular caught, our attention is that of the 13 athletes there is no graduated in higher education, two are attending undergraduate, seven completed high school and four only completed elementary school. These data are similar to the study by Trapé *et al.* (2011) [18], which shows that the Brazilian population when young people spend playing for high performance teams over (66.6%), fail to finish high school.

Instrument

Reduced and adapted version of Form Situations Identification "Stress" Basketball (FISS-B), developed by De Rose Jr. *et al.* (2001) [5] was used.

Data procedure and ethical care

Data were collected in a bodybuilding gym in the city of Brarueri, Alphaville district. The Brazilian National Team Women's Volleyball was at the training place and the researchers went to the site. Arriving at the gym, we went directly to the technical meeting for possible approval of collection, and the research objectives and the data collection instrument were explained. He authorized the collection; however, we could only get in touch with the athletes at the end of strength training. As agreed, as soon as they finished the training was delivering the consent form and after reading and signing, it is that they began to fill out the questionnaire. I waited for the filling and was on hand to take any doubts. The athletes were given the option to participate or not work. This study was approved by the Internal Ethics Committee by the Mackenzie Presbyterian University Research, CAAE 45456515.1.0000.0084 advice number of the Committee of Ethical in Research No. 1113556 of 06/16/2015 according to Resolution 196/96.

Statistical treatment

Data were analyzed quantitatively (Mean, Median and standard deviation). In a first analysis for each question response percentage from the Likert Scale were calculated: (0) does not cause stress; (1) causes very little stress; (2) causes little stress; (3) causes moderate stress; (4) causes a lot of stress; (5) causes very high stress.

3. Results & Discussion

Issues related to the individual performance proved to be highly stressful as Bueno and Bonifácio (2007) [3] states that the attention that the athlete puts in the match and their actions influence over 70% of the psychological relationship with the mistakes, and says that every mistake that percentage up and can occasionally harm the athlete.

Issue 02 (Play in poor physical condition, injured), and Issue 18 (Making mistakes that cause the defeat of the team) has the median 5, i.e. very high stress; According to Almeida and Silvério (2012) [1] being in a good physical condition is very

important to obtain optimal results during the match. Therefore, the physical integrity is one of the largest perceptions of stress that athletes demonstrate. Questions 6 (Making mistakes at decisive moments) and 11 (repeat the same mistakes) is median 4, causing a lot of stress in athletes. Thus, De Rose (1998) [4] and Hirota *et al.* (2016) [13] selects between the various stressors of the effort that every game, as if one of the players does not engage in during the game it can result in contaminating the entire team.

The issues related to the results of the athletes had a median 4, causing much stress as Question 1 (Losing almost won game) and 13 (Losing to technically inferior team). According to Bueno and Bonifácio (2007) [3], the decision-making between the techniques and tactics applied in the game can change the state of stress of the players, because these actions can lead to lose the game to inferior opponents.

The arbitration influences the stress of athletes, causing a lot of stress, and as median 4, as in Issue 09 (Refereeing harmful to you and/ or your team). According Marques and Rosado (2005) [15], one of the moments that creates stress during the match is no follow-up or implementation of standards and rules. Therefore, the arbitration must be fully concentrated and focused not to make mistakes and damaging the team.

The issues related to the opponent are not always stressful situations. Thus, Bueno and Bonifácio (2007) [3] points out that the control that was given to the athlete before departure generates benefits during the same; consequently, this adversary provocation factor is not high. The situation 05 (unfair opponent) is median 4 that is, causes a lot of stress, as the issue 08 (provocative opponent) had the median 2, causing some stress in athletes. According to Marques and Rosado (2005) [15], the reception staff very adversary has the psychological level that the athletes were placed, as they may feel differently this desk can then generate stress or not, affecting the psychological or not.

Table 1: Mean, Standard Deviation and Median of the Issues of Stress

Issues	Mean	Std. Dev.	Med.
Issue 01	4.38	0.65	4
Issue 02	4.31	0.95	5
Issue 03	3.77	1.24	4
Issue 04	3.54	0.97	3
Issue 05	3.54	1.13	4
Issue 06	3.69	0.95	4
Issue 07	2.62	1.39	3
Issue 08	2.38	1.39	2
Issue 09	4.09	0.86	4
Issue 10	4.00	0.71	4
Issue 11	4.23	0.60	4
Issue 12	3.69	1.11	4
Issue 13	4.23	0.73	4
Issue 14	2.69	1.32	3
Issue 15	2.33	1.42	2
Issue 16	3.54	0.88	3
Issue 17	3.46	1.33	3
Issue 18	4.23	1.01	5

The technical issues related to cause stress in different intensities. According to Bueno and Bonifácio (2007) [3], the motivation of the team is one of the factors that most influence the stress level of the athletes.

When we suffer a defeat, you need a lot of motivation to face the next match, and the technical function is to give this support to the athletes. Your correct behavior influences the stress level of the same. Two issues like 03 (unfair Technical) and issue 12 (technician only see the negative side) had a median 4 namely, they cause a lot of stress. The issue 07 (Technical crying a lot), 14 (technician does not recognize the effort of the player) and 17 (technician only critical) cause moderate stress, reaching a median 3 and issue 15 (post coach Behavior game after a defeat) causes little stress as having median 2. According Marques and Rosado (2005) ^[15], communication is essential within the team, seeking the right answers, but dealing improperly with the mistakes, criticisms and negative charges.

The coach may influence the aspects of stress during the match. Then, we can see that in the same category do not always all situations are highly stressful. According Marques and Rosado (2005) ^[15] it is important to have a good relationship coach / athlete to keep hard work within the team because when any situation that the athlete see as unfair, it does not generate stress.

The issues to fellow vary in moderate stress and much stress. Noce and Samulski (2002) ^[16] defines trust and charge that relates between the team on the court should be balanced and cohesive, as if it was change it can lead the team to a level of harmful stress to the game. Issue 10 (Companion no effort) is the only cause of much stress in athletes, with the median 4. Given this, issue 04 (selfish partner) and issue 16 (partner who complains a lot), are generating stress moderate, reaching median 3. Bueno and Bonifácio (2007) ^[3] states that the perception of teammates in relation to aid and selfishness, not to do so relevant in the course of the match, so cast as moderate stress.

The two issues that have very high median (5 - very high stress), reflecting the stress of athletes when it comes to fundamental physical for her performance in court, and self-confidence at the time of the decisive moments of the match. More cases were identified in the work as a stress indicator: unfair technician, losing almost won game, unfair opponent make mistakes at crucial times, harmful arbitration to you and / or your team mate who does not try to repeat the same mistakes, technical who only see the negative side, losing to technically inferior team. These nine questions had median 4, causing very high much stress. According to De Rose Jr *et al.* (2004) ^[7], Making mistakes at crucial times and lose almost won game, are the major causes of stress during the game, based on the principle also found in our work.

The hypothesis that their failures influence over the level of stress than the attitudes of teammates, confirmed, as and a leading question yourself in relation companions stressed me too, but much more to me than companions. The second hypothesis that the coach's behavior influences the stress of the athlete, it was confirmed. The two situations that resulted in median 4 (very high stress) were: Unjust and Technical technician only see the negative side, however situations as technician does not recognize the effort of the player, Technical crying a lot and Technical criticizing only reached median 03 (moderate stress). So is open to other research.

When athletes arrive at the apex that shows the sacrifice they undergo the wear in the championships, long time traveling away from home, the daily pain in training, but nevertheless, the same want and not bother with it, and not accommodating

with the little, creating an emotional upheaval, but a positive response: growth, maturity and success.

4. Conclusions

Regarding the objective of this study to analyze the situations that cause stress in female volleyball athletes of high performance, this work allowed us to verify that for this group of athletes situations that cause stress are playing in poor physical condition, injured or sick, make mistakes that cause the defeat of the team.

5. References

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