

Assessment and Management of Stress in Juniors' Sports Activity – Preliminary Study

Marius Alin BACIU^{a*}, Radu-Tiberiu ȘERBAN^a,
Cristian-Ioan ȘANTA-MOLDOVAN^a,
Alina Paula APOSTU^a, Codruța Roxana BACIU^b

^a*Babeș-Bolyai University of Cluj-Napoca, no. 7 Pandurilor street, Cluj-Napoca 400376, Romania*

^b*Liceul Teoretic Onisifor Ghibu, Cluj-Napoca, Romania*

Abstract

Introduction. This preliminary study is oriented towards identifying different means of assessing and managing junior sports related stress, which according to the specialized literature, is more and more prevalent. **Objectives.** Our goal is to better understand the perception of stress by junior tennis players and test the methodological steps which are necessary to elaborate strategies for addressing this matter. **Methods.** In this paper, the method of studying the specialized literature was used to collect relevant information published in international databases. Also, a questionnaire for evaluating competition related stress was applied to several junior tennis players (N=5) which are involved in national tennis tournaments. **Results.** The study suggests that if it is not well addressed, competition related stress can limit the performance of junior tennis players, affect their wellbeing, and can also lead to sports abandonment. The applied questionnaire identifies some of the sources of competition stress for junior players. **Conclusions.** Sports specialists should be aware of the feelings junior tennis players have related to competitions. Questionnaires are a feasible mean of evaluating competition related stress and can be the foundation of addressing it. This pilot study can be further developed by improving its methodology and by involving more subjects.

Keywords: *sports, stress, assessment, management, juniors.*

* Corresponding author. Tel.: +40740162151.

E-mail address: marius.baciu@ubbcluj.ro

1. Introduction

1.1. Adolescence and sports competitions

Adolescence is a critical period in the development of elite athletes (Vealey, 2007). For some sports, this society provides a window for the development of physical and psychological skills considered essential for achieving optimal performance (Lauer, Zakjarsek, & Lauer, 2017). For others (e.g., gymnastics), it corresponds to reaching the physical and psychological maturity considered optimal for performance. At the same time, adolescence is a very important period for identity development (Erikson, 1959). Teenagers are faced with greater responsibilities and must take it upon themselves to transition to adulthood by making decisive choices for their future. Thus, an important scientific literature has developed around the sports experience of junior athletes since the late 1990s.

This literature falls into two main areas of interest. The first area concerns the development of talent in sport, while the second concerns the positive development of young people through sport. The first area of research is guided by the philosophy that developing excellence is important because the success of professional and Olympic athletes contributes to the economic prosperity and political power of provinces and countries (e.g., Martindale, Collins, & Abraham, 2007). In the second area of research, sport is a vehicle that helps adolescents develop positively, maintain health, and adapt effectively to life transitions (e.g., Fraser-Thomas, Côté, & Deakin, 2005). Despite debates regarding the importance of performance versus positive development, it is important to study the experience of young athletes in competition to better understand what contributes to their success and well-being (Fraser-Thomas & Côté, 2009).

High-level competition is particularly demanding for adolescent athletes (Nicholls, Hemmings, & Clough, 2010). Indeed, competitive athletes spend many hours training and competing. They have to manage their studies around their sport and sometimes have to move away from their families to join training centers. Thus, these young people often face additional challenges at the social, family and school levels to meet the demands of competitive sport. Furthermore, they are exposed to pressure to perform and high expectations from those around them (Ommundsen,

Klasson-Heggebø, & Anderssen, 2006). Thus, these athletes must learn to manage their emotions and the pressure they feel (Lauer et al., 2017). For these reasons, researchers are interested in the experience of elite athletes in competition as well as the effectiveness of certain interventions to optimize their well-being and performance.

1.2. Assessing stress in juniors' sport activity: the internal speech

One research path to better understand athletes' experience in competition is to focus on their automatic internal speech. In a sports context, automatic internal speech reflects the emotion experienced by the athlete and provides information about how they manage their thoughts, emotions, and behaviors (Latinjak, Zourbanos, Lopez-Ros & Hatzigeorgiadis, 2014; Van Raalte, Vincent, & Brewer, 2016). Thus, by questioning athletes about their automatic internal speech during a competition, it is possible to better understand their experience. Furthermore, given its influence on emotions and behaviors, internal speech is a target for intervention to improve the performance and psychological well-being of athletes (Andersen, 2009). To contribute to the advancement of knowledge of automatic internal speech and the experience of athletes in competition, this study focuses on the automatic internal speech of junior tennis players.

2. Objectives

Our goal is to better understand the perception of stress by junior tennis players and test the methodological steps which are necessary to elaborate strategies for addressing this matter.

The objectives of this study are to learn more about competition related stress, self-talk, and also about the strategies of better managing the psychological dimension of sports training in junior tennis players.

3. Methods

In this paper, the method of studying the specialized literature was used, to collect relevant information published in international databases. Also, a questionnaire for evaluating competition related stress and self-talk

was applied to several junior tennis players ($n=5$) which are involved in national tennis tournaments.

3.1. Subjects

The subjects were 5 boys aged between 17 and 18 years old from the Transylvania region of Romania that participate in national level tennis tournaments.

3.2. Instruments

After receiving the written consent of their tutors, we explained that the subjects would participate in this study by filling in an online form shortly after their participation in a tennis tournament.

The online form included an introduction about the purpose of this study, questions about their personal identification data, and questions related to 5 significant events that took place during their most recent tennis competition experience, in order to find out which were the emotional trigger events, and what was their self-talk, emotion perception and coping mechanism or reaction related to the events.

Evaluarea stresului competițional și a discursului intern (self-talk)

Vi adresăm acest chestionar pentru a evalua modul în care a fost prezent stresul la cea mai recentă competiție la care ai participat. În stare de încredere legată de datele voastre personale, obiective se referă la orice moment pe care voi l-ați considerat important sau semnificativ din punct de vedere emoțional pe parcursul celei mai recente competiții disputate. În timpul sau după ea, de ce ați fost legat/detent de ceva (a pierdut sau câștigat un punct anumite) sau de ce ați fost legat/detent de ceva (ați câștigat sau pierdut un punct) sau o situație de socializare (a vorbit cu cineva înainte în timpul sau după meci). Acest chestionar are ca obiectiv să ajute la completarea emoțiilor și a discursului intern al participanților la competiții.

* Obligatorii

1. Cum te cheamă? *

Introduceți răspunsul

2. Care e vârsta ta? *

Introduceți răspunsul

3. Care e genul tău? *

Introduceți răspunsul

4. Numiți evenimentul 1 (de ex: o discuție cu cineva înainte de meci/punct pierdut sau câștigat, etc) *

Introduceți răspunsul

5. Legat de evenimentul 1, care a fost discursul tău intern? ce ți-ai spus în gând? *

Introduceți răspunsul

6. Legat de evenimentul 1, care a fost emoția/sentimentul ce l-ai avut? *

Introduceți răspunsul

7. Legat de evenimentul 1, cum ai reacționat? ce ți-ai spus în continuare? ce ai făcut ca răspuns la emoție/sentiment? *

Introduceți răspunsul

Figure 1. Self-talk assessment questionnaire

After receiving their answers, we used a table to centralize the answers for future analysis, as seen below, in table 1:

Table 1. Internal speech centralizing grid*

Event	Self-talk	Emotion	Behavior
1) e.g.: I talked to my coach before the match	I told myself I have to stay focused during the match	Confidence	I held my chin up and my muscles tense
2)			
3)			
4)			
5)			

* Adapted from Williams et. al. (2014)

4. Results

The subjects' responses were analyzed, and the self-talk recorded was categorized in eight main categories of self-talk used: positive emotion, motivational, instructional, worry, rumination, performance pressure, disengagement, and emotional control. Motivational and rumination self-talk were found to be the most present categories as seen below:

Table 2. The categorized self-talk used by the subjects during competition

	Self-talk categories							
	Positive emotion	Motivational	Instructional	Worry	Rumination	Performance Pressure	Disengagement	Emotional Control
Player								
1	"I have been encouraged"	"Keep playing like this" I encouraged myself to carry on like this"	"I must change something in my game"		"I was upset on the referee because his call was wrong. I felt wronged."			
2		"I still have a say in this match. This is not my last word. I am not satisfied!" I must find success despite my bad day!"			"I can't believe it! How did this happen? Why? How? What could I have done better? What did I do wrong?"	"I disappointed them. Why wasn't I better than it?"	"In other circumstances it would be better. This is worse, but I still believe in my chances, I can still try."	
3	"I tried to self-motivate."	"I tried to arm myself with patience"	"I started doubting my abilities, but I tried not to let that lost point affect me."		"I started self-criticizing"			"I tried not to think too much at that lost point and carry on."

Self-talk categories							
Positive emotion	Motivational	Instructional	Worry	Rumination	Performance Pressure	Disen-gagement	Emotional Control
4 “ Oh! Appar- ently, it’s not that bad I told my father about my emotions.” “ It’s good that he con- firmed my tactical idea was good”	“ If I got this far, I might as well give my best, even if it means dying on court”			“Why is this happening now. Why couldn’t the referee be focused the entire match and not make wrong calls?”			“At first I tried to explain my oppo- nent that he was wrong with what he said.”
5 “I’m proud of myself”	“Bravo! Carry on like this!”		“No wor- ries!”		“ I have to win this match” “ I have to win the next match”		

The main events recalled by the players to have triggered self-talk were mainly situations like a social interaction before, during or after the match, a lost or won point, allegedly wrong calls by the referee or physical fatigue.

These methodological actions employed allowed the investigation of these junior athletes' experiences in a competitive setting, letting us better understand self-talk in relation to emotions. The recorded answers could show hints to the sports specialists on how to better prepare the emotional reaction to frequently encountered self-talk triggers.

5. Discussions

Certain members of the athlete's entourage also play a key role in the quality of the adolescent-athlete experience. In particular, the coach and parents are important people in the support and supervision of young athletes (Harwood & Knight, 2015; Thelwell & Hill, 2017). Given their role and the influence they have on athletes, it is important that entourage members contribute to improving the athlete's experience. Thus, it is important to study the quality of the experience of the people involved with the athlete.

Specifically, regarding the experience of junior athletes, parents are recognized as playing a key role in their children's participation in sports (Wiese-Bjornstal, LaVoi, & Omli, 2009). They are recognized as the main source of influence for their children's involvement in sports. In addition, support and encouragement received from parents is associated with a child's perception of competence, enjoyment, and involvement in sport (Knight, Berrow, & Harwood, 2017).

On the other hand, unrealistic parental expectations and a critical attitude are associated with less enjoyment and motivation, a lower perception of competence and a higher level of anxiety. Thus, to better understand what determines the nature of the influence that parents have on elite junior athletes' experience in sport, researchers focused more specifically on their experience. The results of these studies demonstrate that the nature and quality of parents' competition experience influences their child's (Knight et al., 2017). For example, the stress experienced by parents during their children's competitions influences their behaviors and interactions with their children (Burgess, Knight, & Mellalieu, 2016; Harwood & Knight, 2015). The results also testify to the extent of the emotional investment of some parents during their children's competitions. For example, authors who have studied the emotions experienced by tennis players and their parents have observed that some parents experience emotions similar to those of their child (Dorsch, Smith, & McDonough, 2009). The complexity of the relationship between athletes and parents in the context of competition invites researchers to continue research focusing on the experience of junior athletes in competition alongside that of their parents.

The results of one of our previous articles (Baciu et.al., 2015) shows that parents play a critical role in the development of junior tennis players, help their children succeed but coaches believe that many parents significantly interfere with the development of their child, and cause damage to the parent-child relationship. This is not surprising, given that parents do not receive information about how to help their child develop in tennis.

6. Conclusions

Sports specialists should be aware of the feelings junior tennis players have related to competitions. Questionnaires are a feasible mean of evaluating competition related stress and can be the foundation of addressing it.

The limitations of this study are, firstly, that the study participants were not representative of all tennis players. Second, the results are based on the participants' reports during interviews, and the participants may have had self-talk other than those reported. Third, there was a potential for social desirability bias, whereby the participants may have wanted their responses to be viewed favorably.

The study suggests that if it is not addressed, competition related stress can limit the performance of junior tennis players, affect their wellbeing, and can also lead to sports abandonment. The applied questionnaire identifies some of the sources of competition stress for junior players.

This pilot study can be further developed by improving its methodology and by involving more subjects.

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