



## STUDY OF THE EFFECT OF STRESS OVER THE COMPETITIVE PREPAREDNESS AMONG WOMEN BASKETBALL PLAYERS

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### ABSTRACT

Nowadays, basketball imposes significant demands on coaches and players with regards to their physical, technical-tactical and psychological abilities. The dynamism that is characteristic of the basketball game, often puts female basketball players in various stressful situations in which they must show stability. **PURPOSE:** The purpose of the current study is to help women basketball players during their preparation in order to overcome stress in the environment of important competitions. **METHODS:** A special questionnaire was used. The study was carried out during the European Basketball Championship Women U-18, Division B, in the period 30.07 – 07.08.2022 in Sofia, Bulgaria. The questionnaire consists of questions related to: the playing experience of the female basketball players, the team position they play at, the physiological changes they experience when under stress during competition, the occurring emotional changes, the effect of stress over their basketball capabilities and skills, and others. **RESULTS:** The competition stress is at its highest level of sensing before a particular match. Before important competitions or matches, stress causes physiological changes such as: a knotted stomach, acidity in the stomach, higher rate of perspiration, faster heartbeat and breathing. **CONCLUSIONS:** It is of particular interest among sports training specialists and coaches to know more about the methods and techniques in which they would be able to overcome and suppress the stress conditions of the players in the environment of competitions – before a basketball match itself, during the match, and after it has finished.

**Key words:** basketball, stress factors, competition environment, analysis

### INTRODUCTION

Stress is an extremely complex phenomenon, combining in itself all types of reactions that a person is able to carry out and experience, refracted through the prism of one’s own conscious “Self” in interaction with the environment (1).

Other irritants can also be stressors if they impose increased demands on the adaptation process. A stressor is a disturbing factor that takes the organism out of the limits established as its

physiological constants (2). Such factors (stressors) lead to disruption of the dynamic equilibrium of regulatory systems (3).

Some authors mark among the main factors to cause stress to be the importance of the event, the purpose of the competition and the anticipation of the start (4). Others point to the degree of discrepancy between the athlete’s current state and what is intended or expected as a major factor (5, 6).

An important factor for achieving victory is the versatile and high-quality training of the basketball players – conducted by their coaches. Their interrelationship is determined by the joint work of the athletes, the type of leadership of their coaches, the personal qualities they possess (7).

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When conducting a stress study in basketball, an analysis of the changes that occur in training and competition conditions must be carried out.

Elite basketball players are able to a large extent to eliminate the stress that occurs during competition matches series or a championship. This trend is conditioned and influenced by their coach and their long-term sports experience. The application of specific techniques by the coach would minimize the negative impact of stress on the competitive performance and the manifestation of the level of their technical-tactical preparation.

**METHODS**

The purpose of the current study is to support the preparation of female basketball players to overcome stress in the conditions of important competitions. The survey was conducted during the European Basketball Championship for Women Under-18, Division B, in the period 30.07-07.08.2022 in Sofia, Bulgaria. The women basketball players finished the championship ranking at the eighth place. They have 2 wins over Ukraine and Estonia and 4 losses (against

Slovenia, Portugal, the Netherlands and Romania).

In order to complete the set objective, we executed the following tasks:

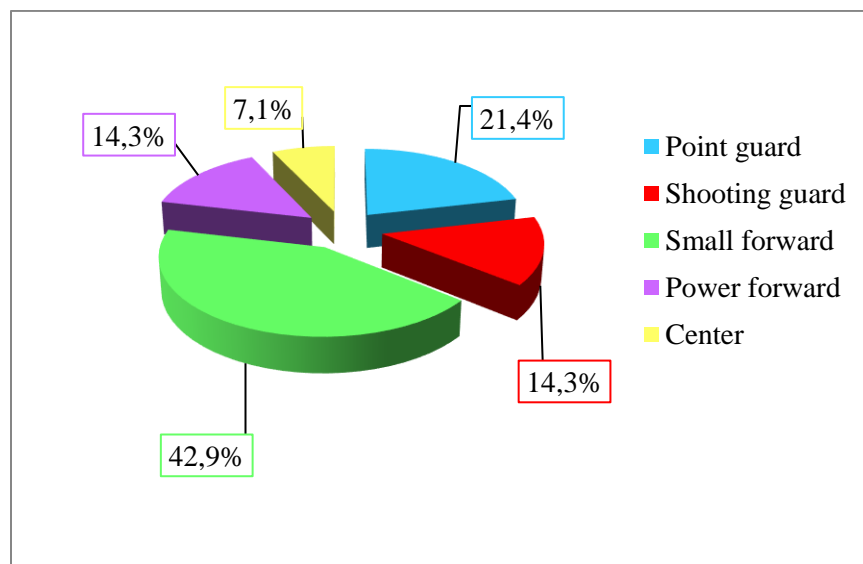
1. Studying the specialized literature covering this issue;
2. Identifying the sports and competition experience of the women basketball players;
3. Studying the factors which cause stress during important basketball competitions;

The examined respondents in this study are 14 female basketball players from the Bulgarian National Basketball Team who participated in the European Championship.

A special survey questionnaire was used (8). The main method used for the study was a survey questionnaire. It includes 10 questions which require a specific related answer.

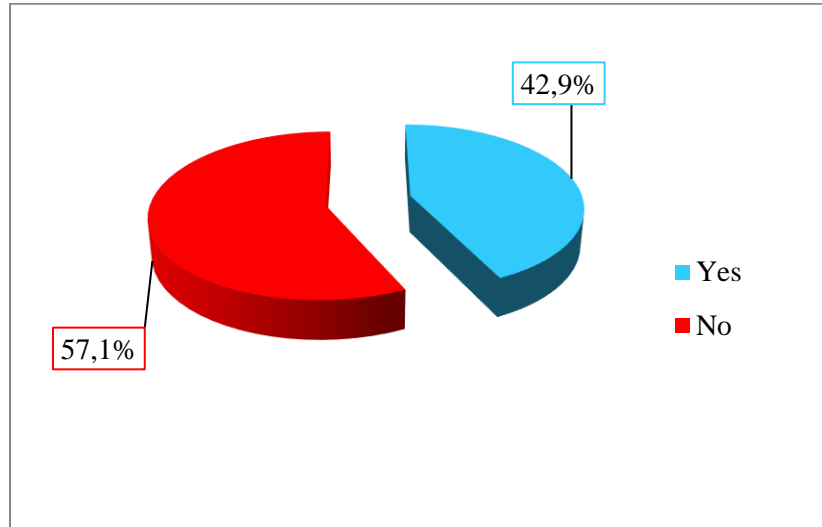
**RESULTS**

The first question in the survey is concerning the playing position that each basketball player has on the basketball court. 42.9% play at the “Small forward” position, 21.4% determine their post as a “Point guard”, 14.3% respectively at “Shooting guard” and “Power forward”, while 7.1% are “Center” (**Figure 1**).



**Figure 1.** What is your position you play at?

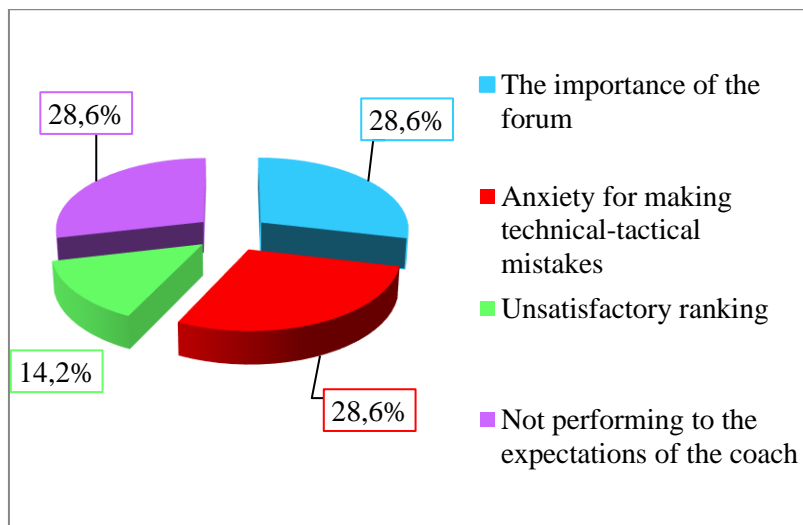
To the question “Have you participated previously at a European Championship?”, 42.9% answered “Yes”, 57.1% “No” (**Figure 2**).



**Figure 2.** Have you participated previously at a European Championship?

**Figure 3.** shows the results for the question “Which is the factor which causes the strongest competitive stress before your participation at the European Championship?”. 28.6% mark each of the following answers: The importance of the

forum; Anxiety for making technical-tactical mistakes; and Not performing to the expectations of the coach. 14.2% of the respondents feel stressed out because of the unsatisfactory ranking of the team.

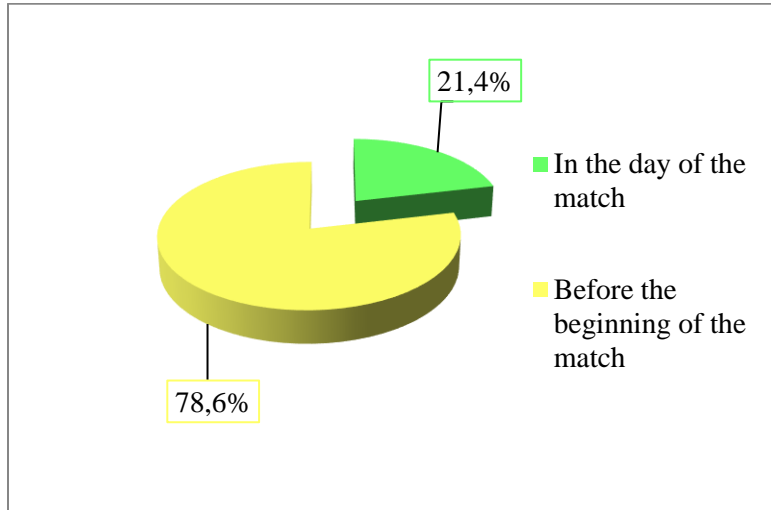


**Figure 3.** Which is the factor which causes the strongest competitive stress before your participation at the European Championship?

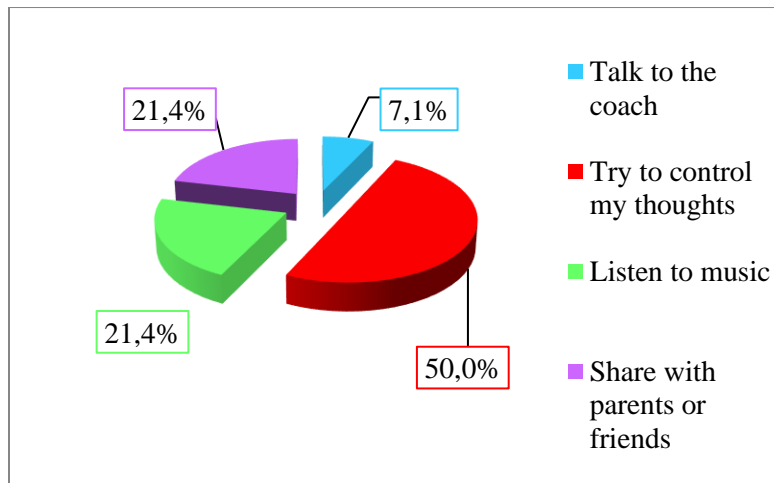
To the question “When do you feel the competition stress at the strongest extent?”, 78.6% answer that they feel the most stressed out before the start of the match, while 21.4% mention the day of the match (**Figure 4**).

the consequences of stress by trying to control their thoughts. Talking/ sharing with parents or friends, as well as listening to music are the actions used by the respondents to overcome stress by respectively 21.4% for each of both activities. Just 7.1% rely on conversations with the coach (**Figure 5**).

Half of the respondents to the survey among the women basketball players admit they cope with



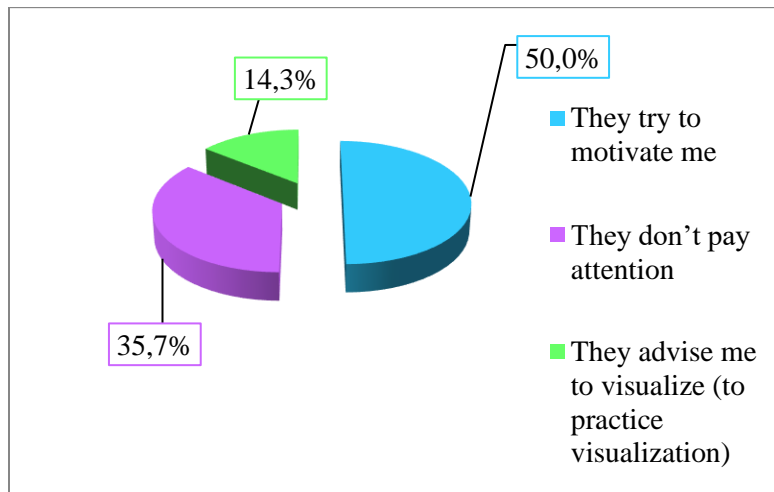
**Figure 4.** When do you feel the competition stress at the strongest extent?



**Figure 5.** How do you cope with the effect (consequences) of stress?

Considering the data from the question “How is your stress experienced by (affecting) your team-mates?”, 50% of the respondents try to motivate

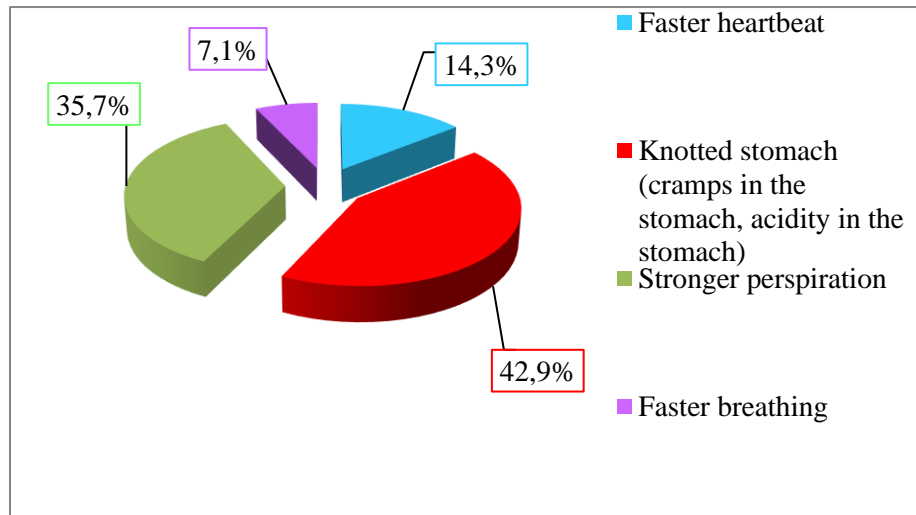
their team-mates, 35.7% don’t pay attention to the anxiety of others, while 14.3% give advice for practicing visualization (**Figure 6**).



**Figure 6.** How is your stress experienced by (affecting) your team-mates?

42.9% of women basketball players responding to the survey admit they have felt knotted stomach (cramps in the stomach; acidity in the stomach) as a physiological manifestation of stress. 35.7%

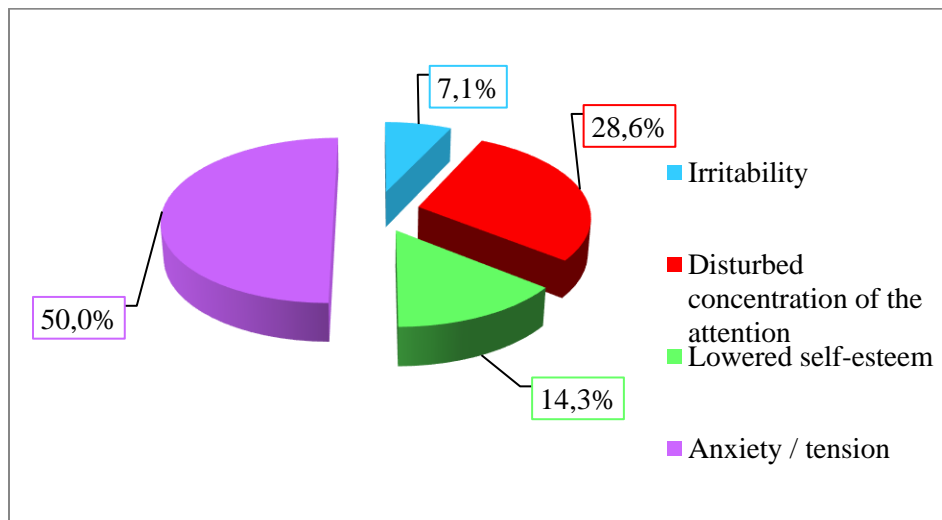
claim they have stronger perspiration, 14.3% faster heartbeat, and 7.1% experience faster breathing (**Figure 7**).



**Figure 7.** What physiological changes (effects) do you experience when under stress?

As we can observe in the chart of **Figure 8**, we notice that every second basketball player (or 50%) claim that the emotional changes they experience during stress are represented by

tension / anxiety. Among 28.6% the experienced effect is impaired concentration and attention span, 14.3% feel lower self-esteem, and 7.1% feel irritated.



**Figure 8.** What emotional changes (effects) do you experience when under stress?

To the question “How do you manage to overcome stress after a match?” 57.1% answer that conversations with relatives or close ones would help ease the stress. 21.4% prefer to stay

alone after a match, and another 21.4% of the women basketball players make analyses (**Figure 9**).

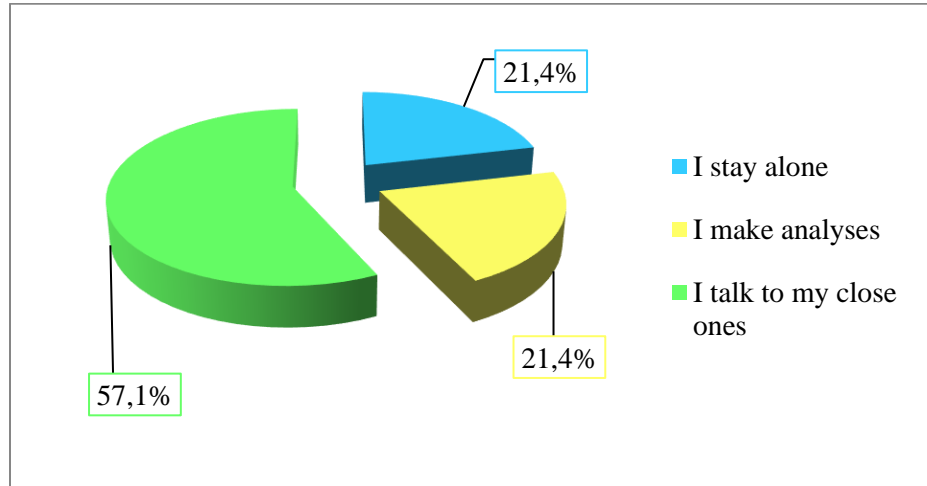


Figure 9. How do you manage to overcome stress after a match?

Figure 10 presents the results of the answers to the question “Do you think that stress affects your basketball capabilities?”. 21.4% agree to the claim that stress affects their basketball

capabilities, 14.3% do not agree, 35.7% have answered “To some extent”, and 14.3% have answered with “Maybe” to the asked question.

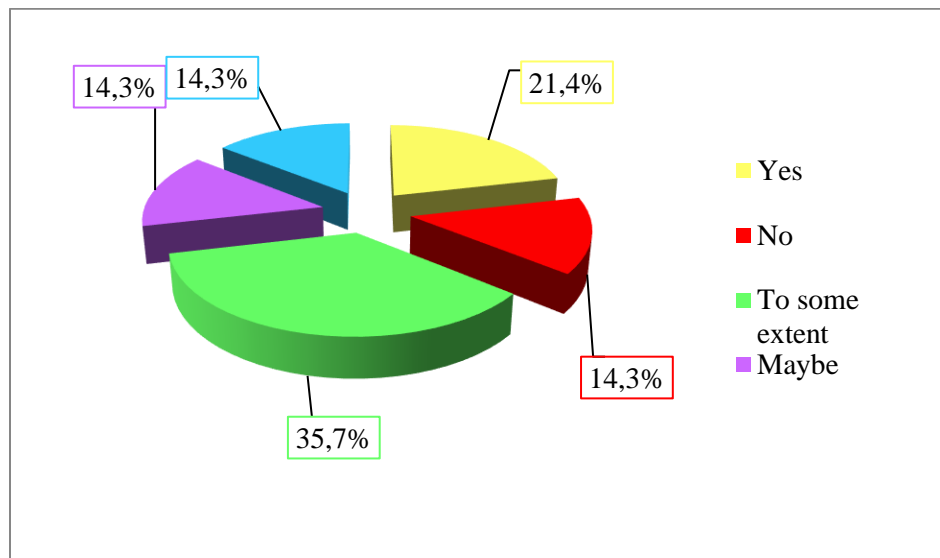


Figure 10. Do you think that stress affects your basketball capabilities?

**CONCLUSION**

Based on the analyses of the processed results, we can summarize that stress affects the competitive readiness of female basketball players.

Before the start of the meeting, the importance of the forum, the worry of making technical-tactical mistakes, not performing up to the coach’s expectations are the prevailing answers. Under inflows of stress, basketball players feel tension and impaired concentration. Physiologically, they

feel knotting and acidity in the stomach, increased sweating and heart palpitations. Conversations with loved ones and relatives, solitude and analysis are the most common things that help female basketball players in their struggle to overcome stress after the final whistle of the game. The state of maximum nervous stress is greatest on the day of the basketball match itself and before the very beginning of the match.

Of particular interest to sports specialists and coaches who work with female basketball players in the age group we studied, are the ways female players use to manage stressful situations in competitive conditions: before the match itself, during the match and after the match. Before the match, the desire to win, boosting the confidence of team-mates and intense warm-up are the predominant responses. The thought of responsibility to the team and the suggestion of good preparation are the answers that prevail when asked about the approach to overcome the stressful conditions during a basketball game. Trying to control thoughts, sharing with parents or friends, listening to music, and having a conversation with the coach are the major ways to overcome stress after the basketball meeting is over.

Knowing the different stressful conditions and experiences, and their effect over the basketball players, is of fundamental importance for conducting a successful training process. This will help coaches to make timely adjustments and to take adequate actions in order to manage, overcome and remove stress in its different variations.

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