

FACULTY OF PHYSICAL CULTURE AND SPORT

DIPLOMA THESIS-MASTER

SUBJECT: VOLLEYBALL

THE IMPACT OF ANTHROPOMETRIC PARAMETERS AND THE DYNAMIC FORCES IN IMPLEMENTING OF SOME TECHNIQUES OF THE PRECISION IN VOLLEYBALL

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INTRODUCTION

Morphological development along other anthropological skills have an important role in selection of the youth, where it's known the fact that higher results achieve the athletes with special characteristics and the best of these two above mentioned subjects. From the explored literature we find out that those persons who have specific anthropometric prerequisites, and better motor skills they have a higher scale of success in the sport of volleyball, therefore we should the choice of necessary anthropometric and motor dimensions and we also should make the choice of adequate operators to perform the transformation- orientation towards achieving high results in the game of volleyball. Morphological characteristics (dimensions) we must understand biological and physiological essence which generates the manifestation anthropometric characteristic, such as: body height, weight, circumference of the body and limbs, bone lengths and widths, thickness and other adipose tissue. With these characteristics it's defined the growth and development of the children and youth, as well as their physical construction (constitution,) and it also proves the structure of morphological characteristics (Bala, 2007). Many authors have explored the precision problem. Their knowledge included mainly the field of structure of superiority during the game in general of volleyball male or female players and solving motor tasks in situational exercises or during the competitions of volleyball (Bernstein, 1990; Gajic, 2005; Jankovic, 1988; Karalic, 2007; Lahove and Strelnikova, 2007; Nemcev, 2003; Nesic, 2006; Stojanovic and Milenkoski, 2005). In most papers, the problems are solved only of a substantial part of the structure of the game or are considering factors that are directly or indirectly related to the structure of competitive activity. In antropomotoric manifestos and latency space and the precision is defined as the ability of special volleyball. In latency motor space there are separated two ways of motor precision: precision of shooting and precision of target (Jankovic, 1988; Stojiljkovic, 2003). For volleyball it is characteristic the precision of the exact shooting. If we talk about the types of precision in volleyball, we can add that it's divided into: precision of passing with fingers, precision of passing with "hammer" precision of service and precision of shooting (Bosnar and Schneider, 1983; Horga, Momirovic and Jankovic, 1983). The desire of young women is to deal with more sport activities, especially with volleyball, because they see volleyball as a sport that mostly affects the whole development of the body. But not only in terms of morphological development. As a natural result of this desire it is needed the selection of those young girls with health, constitutional and motor characteristics and other characteristics that suit the game of volleyball. This is a prerequisite for the subsequent orientation and perfection of the potential girls to be connected to the game of volleyball. So, it's necessary to enable to these women the development path from childhood to a successful volleyball player, considering their health. This process of forming new volleyball players should be based on the educational aspect because every educational process as a basis should be learning new motor elements to the game of volleyball. From this it can be said that all educational work requires the application and the observance of didactic principles of scientific aspect, systematic learning, active and conscious participation of new volleyball players, consistency in the acquisition of motor and theoretical knowledge and the expression of opinion on all transformation processes. (Zdanski

and Galic, 2002). The fact is that the physical activity and volleyball game represent an integral part of the cultural life of every human being, and physical education an integral part of the overall educational process, which together with the formation of intellectual, professional, moral and aesthetic personality, it provides continuity and general education of the new volleyball players (Mejovšek, 1979). Teaching basic values are reflected through the objective, tasks, methods, organizational forms and methodological work, content (exercises) physical education, and also adapting the exercises and different age categories in relation to sports, namely volleyball. In the formation of a complete volleyball player, primarily it's required the right selection of young girls. From this right selection it depends the professional work of acquisition of the theoretical and practical knowledge of young girls. Several year period of the formation of a top volleyball player it is a complex process that must pass certain periods of development. After working professionally with young girls in the acquisition of theoretical knowledge and practical (technical and tactical elements), to increase motor skills and specific motor that are responsible for the execution to different situations and technical elements. The right work with the new volleyball players continues in the selection and formation of players in those positions in the field (roles), in which we can use their maximum predispositions to give greater contribution during the game. This period means the specialization of the new volleyball players which means forming the uplifting or organizer of the game, acceptor of service, the middle blocking, kicking on the net, correctors and liberos. Priority in the process of specialization has the analytical work with any players in particular depending on the role it has in the area and work in integrating of the players on the team (Janković, Djurkovic and Resetar 2009). Volleyball and other sports, require only a certain (high) morphological and motor function, in order to successfully operate volleyball players in different game situations. From what was mentioned above it is clear that the continuous theoretical researches are necessary and monitoring and practical examination of these specifications mentioned, and in the game of volleyball it means the control of morphological characteristics. Besides the diversity of sports, that is clear, there is a diversity of structures of the anthropological characteristics and abilities among athletes, because if they did not exist or were not recognized, the research exercises training methods and charges, as well as their impact on the development of skills and anthropological characteristics would be meaningless and unnecessary (Malacko and Rado, 2004). Knowing the structures of several dimensions of psychosomatic status of volleyball (especially the morphological) and their development represents an essential condition for the right selection process and for a professional leadership and training process. Thanks to the extensive research in which they are engaged in the certification of certain parts of the structure of psychosomatic space at the present rate of development of the science of Kinesiology, with conviction and confidence we can talk about the existence of different anthropometric characteristics and capabilities and different features. Various authors provide guidelines that are required to be observed to achieve a satisfactory success in determining samototipio of athletes during the selection in the respective sports (Momirovic, Hošek, Prot and Bosnar 2003). The authors point out that in this case is necessary to fulfill three main conditions:

- 1) it is necessary to be elected or to engage a sufficient number of respondents who are representative of some people who are related with gender homogeneous and that are in a certain stage of morphological development,
- 2) it's necessary to become the best choice of anthropometric variables and to observe strictly the measurement techniques
- 3) which is probably the most difficult condition, the selection of adequate taxonomic algorithm (cluster) because it is well known that the taxonomic problems have no choice in the form of algebraic closed

In every sport, including volleyball, the goal is to improve specific and basic motor skills and motor specific. Some skills have greater importance for success in a particular sport, while others have less. According to this it can be chosen methods which are more or less successfully to advance in some psychomotor skills. The goal is the same but the ways and paths are different. The goal is to find a faster and more confident way that it will bring better results in a shorter time. Numerous studies have shown that results in a physical activity can be predicted with the results achieved in tests used to measure the variables of psychosomatic status of volleyball (BLAŠKOVIĆ, 1977). The reason why I choose to study this issue is the fact that in terms of the researches that have to do with the influence of some anthropometric characteristics and dynamic strength exercises in situational precision are parsial and very little known.

CONCLUSION

Taking into consideration that the volleyball game it requires a high level of some morphological and motor characteristics of the dynamic force so the volleyball players can successfully operate under situational conditions. Just as there are different specifications of sports that emerged and developed by the diversity of their competitive structures as there is a need of a continuous uninterrupted and theoretical research and practical examination of those specifications. In volleyball this means controlling some specific skills and anthropological characteristics. One of the main tasks of coaches and physical educators is to identify the talents and monitoring them during all phases of development. This has become an important component of vital sports programs in many developed countries. In the formation of anthropological traits of a population a primary influence has the genetic factor, but it should not be neglected the impact of external factors, environmental factors. Developed countries begin with the selection of a national team applying criteria and curricula compiled by the State Institute for the development of sport (which to us is lacking, currently not applicable). This paper aimed to determine and confirm the importance of the influence of anthropometric factors and dynamic force motor, the population defined as the population of new female pupil who are strict in exercises within school volleyball section and in school competition at lower secondary primary school "Tefik Canga", Ferizaj, where in this study are included a total of 45 student-volleyball players aged 14-15. Based on the product classification, the problem of research and consistent with the purpose and statistical methods for processing the results there have been submitted three hypotheses. A total of 16 variables were applied where these 6 variables were anthropometric, 6 have been motor of the dynamic force and 4 motor situational of the precision in volleyball and all these applied variables underwent basic statistical processing, on the basis of which it is established that all these variables have fulfilled the conditions of application and have satisfactory metric characteristics. Descriptive analysis was applied in order to determine the arithmetic average, standard deviation and determining the asymmetry and curve. In order to determine the impact of 72 predictive variables (anthropometric variables and dynamic motor force) in the critical (situational precision motor variables) has been applied the regression analysis. Descriptive analysis shows that the results of pupils (new volleyball players) appear as homogeneous results where we can conclude that the group of pupils- new volleyball players appear as a homogeneous group. Intercorrelation coefficients of the anthropometric parameters show that the values obtained have a statistically significant correlation which is also certified according to the researches made so far by many authors. Intercorrelation coefficients of the motor parameters of the dynamic force it also shows that the obtained values have a statistically significant correlation which is also certified according to research made so far by many authors. Intercorrelation coefficients of the motor situational parameters of the precision show that the obtained values don't have a statistically significant correlation to what we have to do with volleyball players with not so good technical knowledge. Regression analysis shows that from the anthropometric variables the diameter of the elbow affects the motor task execution situational of the precision passing the ball with "hammer" to the horizontal target - MSDTCH and as well as the body weight and height and the perimeter of the shoulder have an impact in executing situational precision motor task passing the ball with "hammer in vertical target - MSDTÇV. Obtained values by the regression analysis shows that from the motor variables of the dynamic force, the dynamic force of the arms and the chest (pumps) (MFDPOM in the result of passing the ball with your fingers in horizontal target (MSDTGH) is statistically important, then the dynamic force of arms and chest standing on hands in scalable parallel from lying position with support on hands and heels (MFDNDV) is evident in the realization of the motor situational task of precision passing the ball in the horizontal target with "hammer" (MSDTÇH), and the dynamic muscle strength of the back lifting the body from the lying position grovel (MFDNSH) is evident in the realization of the motor situational task of precision passing the ball in the vertical target with your fingertips (MSDTGV). Based on the obtained results from this research we can conclude that during the researches with the new volleyball players they should be involved in anthropological researches and other factors in order to have a real picture of reciprocal actions.