

INVESTIGATING STRATEGIES FOR DEVELOPING LOWER LIMB STRENGTH IN RUMBA

<https://doi.org/10.35219/efms.2024.1.07>

RADULESCU (MARTINESCU), M.,¹ ENE-VOICULESCU, V.²

¹ a PhD student, Doctoral School of Social Sciences and Humanities, Faculty of Physical Education and Sport, Craiova University, Str. A. I. Cuza nr.13, Craiova, România, RO-200585

* Corresponding author: martinescu_magdalena@yahoo.com

² Naval Tactics and Armament Department, Faculty of Marine Engineering, Mircea cel Batran Naval Academy, 900218 Constanta, Romania

***Abstract:** Research on the content of sports training and the means of artistic preparation within sports dancing in Romania becomes essential to ensure efficient, holistic, and tailored training for dancers. We have monitored the emphasis given to physical training (both general and specific) during various training periods; the extent of utilizing artistic training methods for the development of lower limb strength; and the perceived utility, according to specialists, of developing lower limb strength through specific artistic training methods in youth-level dancers, particularly in the Rumba dance.*

***Key words:** Rumba, artistic preparation, physical training*

INTRODUCTION

Romania is internationally recognized for its achievements in competitive dancing, boasting representatives in high-ranking competitions. To maintain this position and make significant contributions to international competitions, physical and artistic preparation must be at the highest level. Competitive dancing encompasses a wide range of styles and difficulty levels, requiring different training approaches to meet the specific demands of each style and level [4].

The world of competitive dancing is constantly evolving, introducing new techniques, training methods, and artistic means. Research in this field can help understand how coaches integrate these innovations into dancer training. Competitive dancers must

blend intense physical requirements with authentic artistic expression. Questionnaire-based research can clarify how these aspects are balanced and integrated into training.

Coaches and instructors have a significant impact on the development of dancers. Understanding their practices, approaches, and methods can contribute to improving the quality of dancer preparation. In this context, research on the content of sports training and artistic preparation means within competitive dancing in Romania becomes essential to ensure effective, holistic, and tailored training for dancers. This research can benefit not only dancers, coaches, and instructors but also the entire community of competitive dancing in the country. The study conducted by Sawczyn S, Zasada M, Kochanowicz A et al. [9] asserts that general strength development leads to the improvement of technique and consequently enhances individual performance in competitions.

In order to carry out training that builds the athlete in accordance with competitive requirements, coaches and instructors must be familiar with and apply the latest information related to sports training [1,10], including the proportion of components in training cycles and many other technical details [7], adapted to the individuality of the athletes they work with. By examining studies and research related to the training of dance athletes [2,3,8], we formulated the questionnaire questions to obtain the most realistic insight into the strategies and practices used in the training process.

OBJECTIVES

The main objective is to explore how coaches and instructors address aspects of variation in means, setting progressive goals, providing feedback, promoting continuous learning and collaboration, integrating artistic elements into training, facilitating self-evaluation, and adapting to changes.

The questionnaire development began with a rigorous review of specialized literature to identify relevant questions and key concepts. Additionally, opinions from experts in the field of competitive dancing were considered to ensure comprehensive and pertinent coverage of the subjects. In this direction, we have identified conclusions from research

in the field of competitive dancing, pointing towards the possibility of examining aspects related to dancers' physical preparation that facilitate correct technique and a lower injury percentage. Due to the complexity of dance steps and specific combinations, competitive dancing is an extremely demanding field approached from a performance perspective, requiring many hours of training for both general and specific physical preparation.

Latin dancers have radically different biomechanical requirements compared to standard dancers [6]. In Latin American dances, both men and women follow a similar pattern of steps and often mirror each other's movements [5].

This endeavor aims not only to provide a detailed perspective on the conduct of competitive dancers' training but also to contribute to the development and improvement of existing practices by identifying best practices and areas where adjustments could be made to ensure continuous and sustainable progress in dancers' careers. The results of this research could bring significant benefits not only to the dancers themselves but also to the competitive dancing community in Romania, as well as coaches and instructors, providing them with valuable information and guidance to enhance their approaches and training strategies.

MATERIAL AND METHODS

Our study utilized a questionnaire-based survey comprising 12 items, administered to a sample of 50 subjects selected from individuals capable of providing relevant data in the field of competitive dancing. The participants included coaches and instructors from sports clubs in Romania, some of whom possessed international experience in coaching and judging, qualified members of the Romanian Dance Sport Federation, and members of technical teams that train the targeted dance couples. The role of the questionnaire was to assess the opinions of experts on:

- The emphasis placed on physical preparation (both general and specific) during different training periods.

- The extent to which artistic training means are utilized for developing the strength of the lower limbs.
- The perceived usefulness of developing lower limb strength through artistic training means in youth-level dancers, particularly in the Rumba dance style.

The development of the questionnaire used in our study was preceded by defining and formulating the research problem, outlining research objectives, and formulating the main research hypotheses. Derived from the experimental design, we established the sample on which the questionnaire would be applied – coaches and instructors from sports clubs in Romania, representing the target of our investigation.

Our questionnaire aimed to assess the level of theoretical knowledge among the respondents regarding the role and importance of both general and specific physical preparation for dancers, as well as the approach and testing stage of motor quality, specifically muscular strength in the lower limbs, for Youth-level dancers (aged 16-18 years) in our country. The processing and interpretation of the obtained data were based solely on the information provided by the investigation.

RESULTS AND DISCUSSIONS

The questionnaire survey revealed the following key findings:

1. The performance of Youth-level dancers in Romania is primarily influenced by training facilities and, equally, the level of technical preparation, emphasizing the importance of proper training in a conducive environment. It is noteworthy that, in the case of foreign dancers, our respondents consider the level of technical preparation to be highly important for achieving performance.
2. Physical and psychological preparation are significant factors in the performance of Youth-level dancers, both nationally and internationally. Adequate physical preparation can support dancers' ability to execute complex movements and maintain technical proficiency during performances. The third option chosen by respondents included the quality and competence of coaches, which can significantly impact how young dancers

develop their skills and performance, and the level of artistic preparation that can add an additional layer of depth to their performances. From the received responses, it was evident that all Romanian dancers face similar challenges when it comes to enhancing performance at the Youth level.

3. The most important factors influencing performance in the Rumba dance, according to respondents, are musicality (dancers must be able to translate the rhythm and musical feeling into their movements, creating a profound connection between dance and melody) and lower limb balance (as Rumba involves fluid and sensual movements, maintaining correct balance is crucial for executing movements with precision and ensuring a safe stage presence). Accuracy of technique, partner connection, and rhythm were mentioned by 20 respondents each, representing 40% of the respondents' choices. Technical accuracy in Rumba movements is essential to reflect the authenticity of this style; partner connection is crucial, requiring subtle and synchronized communication; rhythm and rhythm breaks are essential for adapting to musical changes and maintaining a coherent flow throughout the composition.

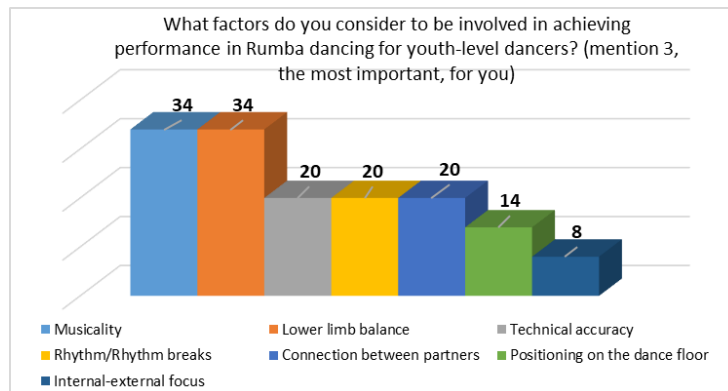


Fig 1. Responses for question no. 3

For the analysis of percentages for different training periods, it is observed that:

- General physical preparation is conducted by most respondents at a rate of 50% during the preparatory and transitional periods.
- Specific physical preparation occupies less than 50% during the competition period, according to 20% of respondents.

- Technical training is carried out in a percentage below 50% during the preparatory, pre-competitive, and transitional periods, and at 50% during the competition period for approximately 20% of respondents.
- Tactical preparation represents less than 50% of dancers' training sessions for 8% of respondents in all training periods, except for the transitional period (where only one response was received). However, 10% of respondents incorporate tactical training elements in a proportion of 50% even during the competition period.
- Artistic preparation is conducted in a proportion below 50% during the preparatory, pre-competitive, and competition periods, and at 50% during the transitional period. It is observed in these responses that coaches and instructors do not assign significant importance to this type of preparation, which, as stated in the first two questions of this questionnaire, is a condition for achieving sports performance. We consider that the misunderstanding may be due to an incorrect interpretation of the concept of artistic preparation, especially in expressive sports where it is represented by exercises from classical ballet. An explanation would have been useful to reduce ambiguity in providing responses.
- Psychological preparation is carried out below 50% in three training periods (preparatory, pre-competitive, and competitive), according to 8% of respondents, and at a rate of 50% for 4% of respondents. In the transitional period, 2% of coaches conduct less than 50% of specific psychological preparation exercises, while 50% of the training is allocated to these types of exercises.
- Regarding theoretical preparation, coaches and instructors participating in this research allocate less than 50% of the time dedicated to training in all training periods.

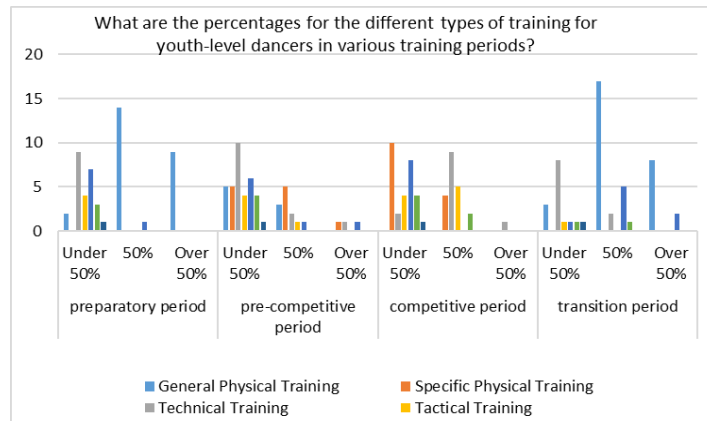


Fig 2. Responses for question no. 5

During general physical training, the surveyed coaches and instructors predominantly use plyometric exercises (72%), while during specific physical training, other types of exercises for lower limb strength development are more prevalent than isometric exercises and those with weights. The responses indicate a focus on developing explosive strength in the lower limbs through less traditional means compared to other sports. Although only 92% of the surveyed coaches believe that artistic training methods can contribute to the development of lower limb strength, only 50% use these methods frequently, 30% rarely, and 20% never. From the analysis of the received responses, we can conclude that the development of lower limb strength is achieved in training through specific artistic training methods, representing a part of the specific physical preparation for competitive dancing.

CONCLUSIONS

The results presented suggest that there is a significant opportunity for improving the use of artistic training methods in athletes' preparation. Thus, athletes could more extensively benefit from the advantages offered by artistic training methods in developing lower limb strength. Respondents' answers align with specialized literature related to sports training, providing a general overview of the conditioning factors for the performance of youth-level dancers. An integrated approach to all training factors and the physical preparation of dancers, in a balanced manner, can lead to success in national and international competitions.

In conclusion, the responses given throughout this questionnaire indicate the validity of the hypothesis with its two questions (1. Is physical preparation one of the conditioning factors for junior dancers' performance in competitive dancing? and 2. Does the development of lower limb strength through artistic training methods enhance competitive training efficiency?). The application of the questionnaire among coaches and instructors in the field of competitive dancing can significantly contribute to leveraging existing knowledge and experience in the country regarding the development of lower limb strength, confirming the first research hypothesis. This initiative could lead to improving dancer preparation and promoting innovation in this field, thereby strengthening the country's position in the international competitive dance scene.

REFERENCES

1. Allen N, Wyon M. *Dance medicine: athlete or artist. SportEx Med* 2008;35:6–9.
2. Dobrescu T. *Dimensions of Communication through Body Language*. 2006. Iasi: Tehnopres
3. Grigore, V. *Methodology of Specific Training of Junior I (12-13 years old) in Dancesport. Doctoral thesis, 2015. Chisinău: USEFS*
4. Koutedakis Y, Jamurtas A. *The dancer as performing athlete: physiological considerations. Sports Med.* 2004. 34(10):651-61.
5. Laird, W. & Laird, J. *The Laird Technique of Latin Dancing. International Dance Publications: Brighton, England.* 2003.
6. McCabe, T. R., Wyon, M., Ambegaonkar, J. P., & Redding, E. *A bibliographic review of medicine and science research in dancesport. Medical Problems of Performing Artists,* 2013.28(2), 70–9.
7. Muyor, J. M., Zemková, E., & Chren, M. *Effects of Latin style professional dance on the spinal posture and pelvic tilt. Journal of Back and Musculoskeletal Rehabilitation,* 2017. 30(4), 791–800.
8. <https://doi.org/10.3233/BMR-150448>
9. Năstase, V. D. *Dans sportiv: Metodologia performanței.* 2011. Pitești: Paralela 45
10. Sawczyn S, Zasada M, Kochanowicz A et al. *The effect of specific strength training on the quality of gymnastic elements execution in young gymnasts. Balt J Health Phys Act.* 2016; 8(4): 79-91. doi: 10.29359/BJHPA.08.4.09
11. Teodorescu, S. *Teoria și metodică antrenamentului sportiv la copii și juniori.* 2009. București: Discobolul.