

INCREASING THE LEVEL OF PERFORMANCE IN TANGO DANCERS USING THE TURNING BOARD TRAINING DEVICE

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Abstract: Argentine tango is considered a social leisure dance, but its evolution over the past two decades has brought it to elite level due to shows on several stages as well as national and international dance competitions divided into several categories. The current research was performed on a group of experienced tango dancers aged up to 35 years. The aim of the paper was to improve and increase the level of performance, proposing a new training method. The new method involves introducing and using the turning board training device in classical training. Initially, the turning board was invented for and used by ballet dancers, ice-skaters and gymnasts, but it was adapted for the first time in this research for Argentine tango through specific individual and couple exercises with the main goal of improving balance and pivots during the execution of this fundamental dance element that is present in almost every circular movement and change of direction. The research methodology used the well-established Y-Balance Test and Flamingo Balance Test as well as an invented rotation test on the turning board. The results of this method demonstrated a significant increase in coordination, balance, posture, spatial orientation and all turning movements involving pivots on the metatarsals around the vertical axis of tango dancers, who have improved both their individual and couple techniques. Following the results achieved, this paper can be considered a pilot study for future scientific research on Argentine tango as an art and elite sport.

Keywords: Argentine tango, turning board, Flamingo Test, Y-Balance Test, training methodology.

Introduction

In the last two decades, Argentine tango has also been approached as a competitive dance, thus offering dancers a new vision and providing a wide variety and many opportunities for new teaching and training methods and methodologies. Globally, schools and academies have been opened for training new dancers and elite competitors to represent their countries on dance floors and stages in national, international and world championships. Some schools are focused only on improvisation dance, others only on choreography, some on both. From this perspective, Romania does not have so far any Argentine tango school dedicated to those who want to perform and represent the country in international championships. Dancing is just a social event and is regarded as a leisure activity. (Kicsi, 2019)

Not all of the existing teaching and training methodologies designed by various Argentine tango instructors and masters are documented and published in written format, most of them being uploaded to the Internet as videos, online lessons and training sessions (“Tangomeet”, n.d.). These lessons explain dance techniques and their progression from a biomechanical and psychomotor point of view but without providing a step-by-step training plan based on teaching and training methodologies. The purpose of this scientific paper is to develop and implement a training plan dedicated to future elite Argentine tango dancers. Methodological documentation and the workplan together with the proof of effectiveness of the training plan can lead to the

standardisation of certain basic principles, techniques and exercises in order to standardise and organize training sessions for competitive purposes. The paper also aims to develop a new complementary training methodology with the help of the turning balance board, which was adapted for the first time to specific Argentine tango exercises to improve balance, posture and spatiotemporal orientation during pivots, pirouettes and turns, in addition to classical workouts.

The turning board, also known as the turn board, ballet board or spin board, is a training device commonly used by ballet dancers, figure skaters and gymnasts to develop various rotational, turning, pirouetting and pivoting dance movements. The regular use of a turning balance board can increase self-confidence but also comfort and stability, neuromuscular coordination, spatiotemporal orientation, improving and harmoniously balancing the posture of the torso and head while performing movements that involve pivots and turns. In dance and gymnastics, a turn or pirouette is a rotation of the body around its vertical axis. This is usually a full body rotation (360°), although quarter (90°) and half (180°) pivots are also possible for certain types of movements. The purpose of using this training accessory is to make more efficient as many pirouettes and turns as possible while maintaining balance, posture and spatial orientation. A pirouette is a complete turn of the body on one foot, either on pointe or demi-pointe. Pirouettes are performed by turning inward towards the supporting leg or outward towards the raised leg. Proper body placement is essential in all types of pirouettes. The body should be well centred on the supporting leg, with the back firmly held and the hips and shoulders aligned. The impulse force is transmitted by the arms, which remain motionless during rotations. The head is the last to move as the body begins to rotate and the first to arrive as the body nears the end of the rotation, with the gaze focused on a fixed point at eye level. This use of the eyes during the rotation is called “spotting”. The difference between pirouettes and turns is the position of the free leg in space. Thus, for pirouettes, the foot of the free leg is close to the stance leg, while in the case of turns, it is farther away either in hyperextension or flexion, in the air or on the ground. Similar types of ballet turns, which are commonly used in Argentine tango, are those performed in the “battement tendu” position with the free leg extended forward, sideways and backward but with the stance leg slightly bent, adapted to the style. (Batson, 2010)

According to Zahiu et al. (2015), many dance categories indicate that they are not mutually exclusive but interdependent, a certain dance style being possible within several categories, as in our case, the symbiosis between Argentine tango and ballet.

The turning board can be made of various materials and can have subtle design variations. It is generally 28 cm long and 7.5 cm wide, being a platform for one foot only. The boards have an arched shape to reduce the ground contact point of the plates and allow turning the flat foot. Consequently, they cause less friction and allow for greater ease of rotation. The boards are commonly made of wood or a plastic/glass composite with a friction-reducing component and have a variety of colours and features in terms of flatter or sharper curvature. “The TurnBoard PRO®” (n. d.) can provide turning boards with built-in sensors that can be connected to the phone through an application able to ensure the real-time recording of all execution values (Score, Turns, Level, Speed, Date, Form) during practice and their storage in the memory of one’s own phone. The boards work normally by correctly applying the law of physics: the

greater the curvature of the plate, the smaller the ground contact point of the board, which reduces friction and increases the ease and speed of rotation.

The dancer usually stands on one foot on the board and tries to rotate the body, making an effort to get used to the rotational movement and the functions of a dance pivot. This increased ease of rotation due to the low friction actually allows the dancer to focus on other functions of the turn, such as spotting (fixing one's gaze towards a point at eye level during the pirouettes, with the head starting to move last but finishing first), spatial orientation, balance, posture and muscle memory. Turning boards work best on wooden floors, dance mats or tiles.

Turning boards are mainly used by ballet dancers and ice skaters to help them in the process of dancing. However, they are also used by other types of dancers (contemporary, jazz, step, hip-hop performers and more) as well as by gymnasts and other athletes who aim to focus on feeling the pirouettes and multiple turns in order to improve and refine their techniques both at home and in the studio.

According to Urzeală (2018), since sport is bordering art, we can also consider that Argentine tango is bordering sport, given that professional dancers are involved in various cultural events (theatre and opera performances, shows, exhibitions, national and international festivals, etc.) but also in national and international championships as both participants and judges or coaches, thus performing at a higher level. In the career of any amateur or professional dancer, participation in cultural or sports events (but not only) enriches the individual on a personal and professional level.

As any elite sport practised in a rigorous, dedicated and persevering way, Argentine tango can also be considered and labelled as such, provided that dancers demonstrate discipline and all the basic characteristics of an elite athlete during training and constantly participate in national and international championships.

Zahiu et al. (2015) state that dance can be included in the field of physical education and sport as a physical-artistic activity or a cultural-artistic activity, which is also true for Argentine tango, given that it equally contributes to cultural-recreational education and the specialised training of human motor skills.

The turning board can also have a beneficial effect on the stability of the ankle, which plays a key role in maintaining balance and stability during turns and in all other types of movements.

The pivot is a major element of all changes of direction, rotational movements, turns and pirouettes performed on the ground, but also of the dynamics of dance, be it linear or circular. Argentine tango contains linear and advance movements as well as numerous circular sequences, principles, combinations of steps, lifts and jumps, involving changes of direction, musicality, speed, height, intensity and dynamics. In terms of directional analysis, Argentine tango contains a greater number of variations in circular movements compared to linear ones (Koh et al., 2019).

The transition from linearity to circularity can be achieved from all eight directions of movement (front, side, back, anterolateral diagonal, anteromedial diagonal, posterolateral diagonal, posteromedial diagonal), from both feet in both directions, as a rotational movement around a fixed point, around the partner's vertical axis (for example: *ocho adelante*, *ocho atra* or their derivatives) and/or as a circular sequence (*giro* or variations thereof) around the partner's vertical axis or the common axis of the dancing pair.

In Argentine tango, any rotational and pivoting movement is generated by increasing pressure on the pivoting foot, along with increasing muscle tone in the lower limbs, pelvis, abdomen and lumbar area, all synchronised with the rotation of the upper torso in the pivoting direction, with no variation in height (Koh et al., 2019). Any rotational movement is initiated on the entire sole in contact with the ground, while the pivot is executed only on the metatarsals of the supporting foot, with stopping or braking performed by placing the heel on the ground.

The dissociation of the upper torso to create momentum and establish the direction of the pivot includes holding the pelvis and lower limbs in place until the torso ends its rotational movement so that the pivot is performed as a successive concentric spiral movement around a balanced vertical axis (Koh et al., 2019). In order to keep balance while pivoting, regardless of the degree of rotation, it is crucially important to properly control the centre of gravity without moving it, as well as to maintain the vertical body alignment and the dance position (Koh et al., 2019). In Argentine tango, all combinations of steps that include pivots can be directly initiated from a standstill (as spiral, pirouette or turning movements) and during the step in all eight directions of movement: front, back, side, diagonal (anterolateral, anteromedial, posterolateral, posteromedial) (Rahmatin, 2018).

From the perspective of dance terminology, all figures, principles and combinations of steps are just successive movements and their results. Rotational movements can be initiated from any step as long as the step is completed and the centre of gravity is in balance with the vertical axis (the foot is in contact with the ground), while the movements are dynamically linked and controlled. Likewise in the turns with a changing axis and the bent-knee balancing technique invented by the famous dancer and choreographer Martha Graham, with adjustments and adaptations specific to Argentine tango (Bota & Lăutaru, 2015).

A short list of names of figures, principles and exercises can be indicated in compliance with the terminology of Argentine tango where the turning board can be used as a complementary training method for the improvement of the individual and the couple: *Adorno, Aguja, Bandera, Boleo, Calesita, Colgada, Enrosque, Gancho, Lapis, Ocho adelante, Ocho atras, Ocho cortado, Parada, Planeo, Salida Americana, Variations*, etc. Apart from these commonly used figures and sequences, many other exercises and sequences typical of Argentine tango can be created from their combination. Since it is a dance of Argentinian origin, the terminology is taught and used in Spanish. (Koh et al., 2019)

Purpose of the study

This research aims to demonstrate the effectiveness of a new training method that complements the classical Argentine tango training and uses the turning board accessory in both individual and couple exercises.

Research hypothesis

By applying the classical training programme together with the new complementary training method using the turning board, young Argentine tango dancers will improve their balance, coordination and spatial orientation during turns at both individual and group levels.

Methodology

Participants

The analysed participants were 20 Romanian dancers from the Romanian-Argentine tango community. They were young adults aged 18-35, with different dance experience. Dancers formed 10 couples and trained both individually and as a couple without exchanging partners during training. They were directly involved in the study by both physical participation and signing the consent statement regarding the processing of personal data.

Participants attended 16 training sessions twice a week for 2 months. The duration of a workout was 90 minutes, including general warm-up, specific warm-up, turning board exercises specific to Argentine tango and final stretching exercises.

All exercises in a training session were specific to Argentine tango, involving movements characteristic of this dance, from the position of the head, torso and upper limbs to steps, sequences and dance figures performed both individually and as a couple.

Methods

- Bibliographic method - involves the collection and processing of theoretical information from national and international sources regarding Argentine tango (theoretical, technical and terminological aspects) and the turning board training accessory using various specialised physical and online sources: books, websites, articles and scientific studies. All these sources provide the opportunity to gather the latest and most important theoretical information in order to establish a baseline as accurate and relevant as possible.
- Experimental method - the study was based on a longitudinal experiment tracking the level of coordination skills and the development of balance by means of individual and couple exercises specific to the classical training for Argentine tango, complemented by the turning board training method. The experiment started with a set of initial tests and measurements, followed by the final tests and measurements after completion of the training programme.
- Mathematical method - consists in calculating the arithmetic mean, standard deviation and coefficient of variation for the results collected from dancers in both phases of the three types of tests.
- Graphical method - a graphical representation of the results obtained from assessments to facilitate the presentation and interpretation of data.

Measurements and tests

The analysed participants were assessed using three types of subjective measurements with a focus on balance correlated with coordination, spatial orientation and suppleness of the lower limbs.

1. Flamingo Balance Test

This test measures the ability to balance successfully on a single leg. It is performed barefoot on a wooden, plastic or metal surface 3 cm wide, 5 cm high and 50 cm long (Kicsi et al., 2018). It is important that the surface is not slippery. The participant must stand still in the “flamingo” position (on one foot) for 60 seconds, with the free leg held by the hand on the same side and the hand corresponding to the stance leg held by the assessor. The test begins when the participant remains in balance without the help of the assessor (Panta et al., 2015).

At each imbalance, the timer stops and 1 penalty point is given. When the participant resumes position, the test continues. If there are more than 15 falls in the first 30 seconds, the test is cancelled (Panjan & Sarabon, 2010).

This means of assessment is suitable because Argentine tango has many specific movements and dance poses that are very similar to the position used in the Flamingo Test, improving both the balance and posture needed to maintain balance during the dance or testing.

2. Y-Balance Test

This test measures both the ability to balance on a single leg and the flexibility of the free leg. A Y-shape is marked on the ground with paper tape or insulating tape, with the following parameters: 135°-135°- 90° (Fullam et al., 2013).

The starting position is one-leg stance with hands on the hips and the big toe at the edge of the Y centre. The stance leg is bent while the free leg reaches forward as far as possible without transferring weight during execution and without lifting the heel of the stance foot. For a correct assessment, begin from the starting position with the feet close together and return to the starting position. For the posterolateral and posteromedial leg extension, the starting position will also be with both hands on the hips and the heel of the stance foot placed at the edge of the Y centre where the leg flexion will be performed (Coughlan et al., 2012).

Each test trial will be performed three times in a row, and the results will be calculated according to the three formulas of the Y-Balance Test (YBT). Once the test is completed and all executions are recorded, the test administrator can calculate the dancers' YBT performance scores using any or all of the following three equations:

- Absolute reach distance (cm) = (Reach 1 + Reach 2 + Reach 3) / 3
- Relative (normalised) reach distance (%) = Absolute reach distance / limb length (anterosuperior iliac spine to the medial malleolus) * 100 (Shaffer et al., 2013)
- Composite reach distance (%) = Sum of the maximum reach in each of the 3 directions/ 3 times the limb length * 100 (Lai et al., 2017)

This means of assessment is suitable because Argentine tango has many specific movements, techniques, positions and dance poses that are very similar to the positions and movements used in the Y-Balance Test, improving both balance and the appropriate posture needed to perform leg extension during the dance or testing.

3. Turning Board Rotation Test

This test was specially invented for this research and adapted to Argentine tango dancers in order to measure their balance, pivoting technique and spatial orientation. The test was performed three times on both feet, and the average of each type of measurement was calculated. Participants were asked to perform the largest turns possible with the free leg extended sideways and backward towards the stance leg and with the leg extended forward

towards the extended leg without losing balance, without changing the position of the feet or the dancing position, without using the free leg to gain momentum or accelerate and without transferring weight to the free leg. Each turn was measured in degrees, and the participants were tested in their socks, without dance shoes.

This measurement is appropriate because all three types of turns are typical movements of Argentine tango for both men and women, in various figures specific to this dance: *Adorno, Aguja, Bandera, Boleo, Calesita, Colgada, Enrosque, Gancho, Lapis, Ocho adelante, Ocho atras, Ocho cortado, Parada, Planeo, Salida Americana, Variations*, etc. The turning board training for pivot improvement is a small, easily portable and affordable device for any dancer.

Equations

In order to calculate, track and devise a statistic of the studied group, the coefficient of variation was used in all three types of measurements. The coefficient of variation allows the comparison of statistical series from the perspective of standard deviation and indicates the homogeneity of the group. If the percentage of the coefficient of variation is below 15%, the group has a high homogeneity, i.e., balanced performance at group level.

According to Chattopadhyay and Kelley (2016), the coefficient of variation is calculated as the ratio between the mean square deviation and standard deviation. In statistics and probability theory, the standard deviation of a random variable is a measure of the amount of dispersion of a set of values from the one considered as average. It is also called “mean square deviation”. The simple arithmetic mean expresses an average level, annihilating individual, atypical deviations. It lies between the highest and the lowest value. This calculation indicates a certain tendency of the studied phenomenon, the statistical average being a value that synthesises in a single numerical expression all the values from a series of measurements or observations.

Results

1. Turning Board Rotation Test

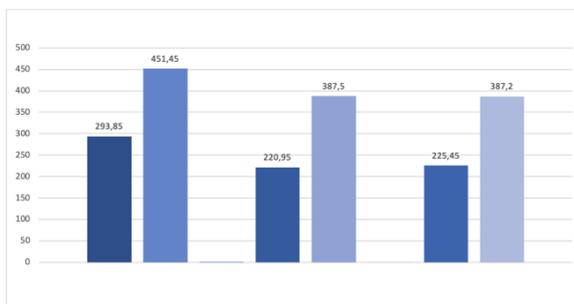


Figure 1. Turning Board Rotation Test – Right foot

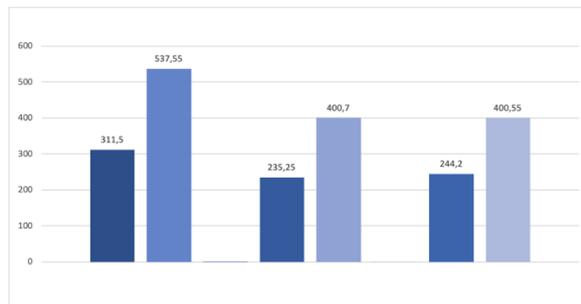


Figure 2. Turning Board Rotation Test – Left foot

Figures 1 and 2, Turning Board Rotation Test – Right foot/Left foot, represent the arithmetic mean of all initial and final results at group level as follows: lateral, anterior and posterior.

Table 1. Results of Turning Board Rotation Test for the group

Group	Test	Number of participants	Arithmetic mean (X)	Standard Deviation (SD)	Coefficient of variation (CV)	t-Test	
						t	p
Turning Board Rotation Test - Right foot – Anterior	Initial	20	220.95	66.6	30.14	-3.99	0.00
	Final	20	387.5	192.42	49.65		
Turning Board Rotation Test - Right foot – Lateral	Initial	20	293.85	105.72	35.97	-6.29	0.00
	Final	20	451.45	146.58	32.47		
Turning Board Rotation Test - Right foot – Posterior	Initial	20	225.45	95.42	42.32	-5.71	0.00
	Final	20	387.2	173.78	44.88		
Turning Board Rotation Test - Left foot – Anterior	Initial	20	235.25	86.55	36.79	-4.12	0.00
	Final	20	400.7	198.47	49.53		
Turning Board Rotation Test - Left foot – Lateral	Initial	20	311.5	143.36	46.02	-4.96	0.00
	Final	20	537.55	251.92	47.86		
Turning Board Rotation Test - Left foot – Posterior	Initial	20	244.2	99.93	40.92	-4.43	0.00
	Final	20	400.55	219.5	54.8		

Table 1, Results of Turning Board Rotation Test for the group, indicates the results of the arithmetic mean (X) in degrees, the standard deviation (SD), the coefficient of variation (CV) and t-Test (where t – calculated t-Test value and $p < 0.05$) at group level in the initial and final tests on both feet, in all three directions: lateral, anterior and posterior.

According to Figure 1, Figure 2 and Table 1 for the Turning Board Rotation Test, a significant increase in arithmetic means can be noticed in all types of tests, which indicates that the complementary training method using the turning board is efficient and significantly develops the dancers' turning technique but also their balance and spatial orientation.

The large differences in standard deviation between the final tests compared to the initial tests reveal that some dancers have demonstrated significantly higher progress than their colleagues during training.

As regards the coefficient of variation, the high percentages indicate that, even if the proposed programme and methodology have been effective, the two months of training were not enough to homogenise and perfect the group.

The t-Test indicators for the Turning Board Rotation Test show a statistically significant increase in balance on both legs in all directions. Lateral rotation and posterior rotation on the right foot show the most significant improvement with a t-value of -6.29 and -5.71, respectively. The lowest value of the t-Test is for the anterior rotation on the right foot, -3.99. The other intermediate values are for the left foot as follows: anterior rotation, -4.12, lateral rotation, -4.96, and posterior rotation, -4.43.

2. Y-Balance Test

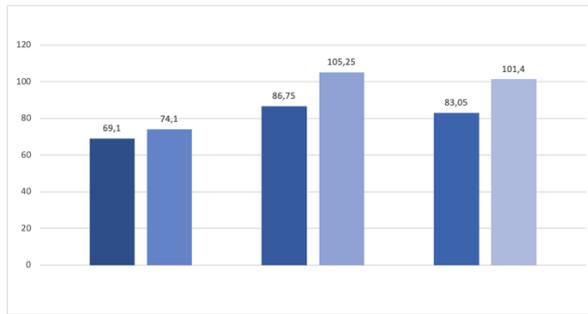


Figure 3. Y-Balance Test – Left foot

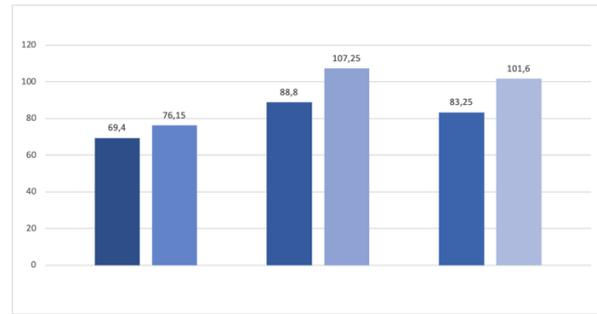


Figure 4. Y-Balance Test – Right foot

Figures 3 and 4, Y-Balance Test – Left foot/Right foot, represent the arithmetic mean of all initial and final results at group level as follows: anterior, posterolateral and posteromedial.

Table 2. Results of Y-Balance Test for the group

Group	Test	Number of participants	Arithmetic mean (X)	Standard Deviation (SD)	Coefficient of variation (CV)	t-Test	
						t	p
Turning Board Rotation Test - Right foot – Anterior	Initial	20	69.4	6.56	9.45	-5.52	0.00
	Final	20	76.15	7.28	9.57		
Turning Board Rotation Test - Right foot – Posterolateral	Initial	20	88.8	10	11.26	-7.99	0.00
	Final	20	107.25	10.64	9.92		
Turning Board Rotation Test - Right foot – Posteromedial	Initial	20	83.25	10.39	12.48	-7.37	0.00
	Final	20	101.6	10.64	10.47		
Turning Board Rotation Test - Left foot – Anterior	Initial	20	69.1	8.35	12.08	-4.01	0.00
	Final	20	74.1	6.93	9.35		
Turning Board Rotation Test - Left foot – Posterolateral	Initial	20	86.75	10.47	12.07	-9.86	0.00
	Final	20	105.25	12.5	11.87		
Turning Board Rotation Test - Left foot – Posteromedial	Initial	20	83.05	9.55	11.5	-7.46	0.00
	Final	20	101.4	11.6	11.44		

Table 2, Results of Y-Balance Test for the group, indicates the arithmetic mean (X) in cm, the standard deviation (SD), the coefficient of variation (CV) and t-Test (where t – calculated t-Test value and $p < 0.05$) at group level in the initial and final tests on both feet, in all three directions: anterior, posterolateral and posteromedial.

According to Figure 3, Figure 4 and Table 2 for the Y-Balance Test, based on the values of absolute reach distance (cm), the relative (normalised) values of reach distance (%) were

calculated, showing an increase in arithmetic means at group level for all types of tests. These results suggest a significant increase in balance and flexibility of the lower limbs. To achieve the greatest possible distance in this test, a flexion movement of the stance leg is performed concurrently with the extension of the free leg in the direction of measurement.

For the standard deviation, a decrease in final values can be observed at group level only when testing the forward extension of the left leg, while the other results are increased compared to the initial tests.

The coefficients of variation are all below 15%, which indicates a high homogeneity at group level for the Y-Balance Test.

The t-Test indicators show a statistically significant increase in balance on both legs in all directions. Posterolateral rotation on the left foot shows the most significant improvement with a t-value of -9.86. Similar values were obtained for the posterolateral rotation on the right foot, -7.99, posteromedial rotation on the left foot, -7.46, and posteromedial rotation on the right foot, -7.37. The lowest values of the t-Test were for the anterior rotation on the left foot, -4.01, and anterior rotation on the right foot, -5.52.

3. Flamingo Balance Test

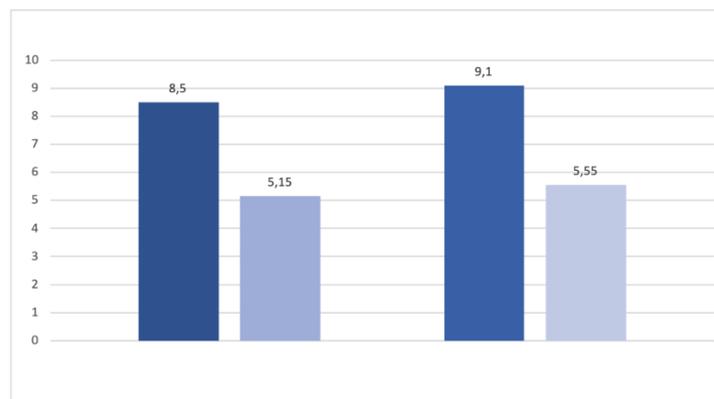


Figure 5. Flamingo Balance Test – Right foot and left foot

Figure 5, Flamingo Balance Test – Right foot/Left foot, represents the arithmetic mean of all initial and final results at group level.

Table 3. Results of Flamingo Balance Test for the group

Group	Test	Number of participants	Arithmetic mean (degrees)	Standard Deviation (SD)	Coefficient of variation (CV)	t-Test	
						t	p
Flamingo Balance Test - Right foot	Initial	20	8.5	4.18	49.28	5.25	0.00
	Final	20	5.15	3.69	71.68		
Flamingo Balance Test - Left foot	Initial	20	9.1	4.39	48.26	5.6	0.00
	Final	20	5.55	3.42	61.75		

Table 3, Results of Flamingo Balance Test for the group, represent the arithmetic mean (X) in penalty points, the standard deviation (SD), the coefficient of variation (CV) and t-Test (where t – calculated t-Test value and $p < 0.05$) at group level in the initial and final tests on both feet.

According to Figure 5 and Table 3 for the Flamingo Balance Test, with regard to arithmetic means, a decrease in the penalty score can be observed, which indicates that, at group level, dancers have demonstrated an improvement in balance and a lower number of failures in the final measurements.

The standard deviation values also confirm an improvement in balance through lower values in the final tests compared to the initial ones.

The high percentages of the coefficient of variation indicate that, even if dancers have demonstrated significant progress in this test, no homogeneity has been created at group level, some participants showing more significant progress than their peers.

For the Flamingo Balance Test, the obtained values show a statistically significant increase in balance on both feet, from an average of 8.7 to 5.4 points of balance loss for the right foot and from an average of 9.3 to 5.6 points of balance loss for the left foot. The calculated t-value is 5.25 for the right foot and 5.6 for the left foot, and the p-value for both feet is less than 0.05. Therefore, the improvement is more significant for the left foot.

Discussion

According to Antonella Tatiana Terrazas (“Tangomeet”, 2020a), a professional Argentine tango dancer, teacher and choreographer, the turning board training device is highly recommended for tango dancers. To be a tango dancer requires feet, ankle, legs and core strength to control every tiny movement. This device helps to find the vertical axis during rotation and is very important to keep the pressure point on it for not losing balance. In Argentine tango, the leg workout is extremely important in order to lead or follow directions; the movement becomes much clearer for both partners, and this makes a huge improvement in communication to then get the best result on improvisation.

Dimitris Bronowski (2020a; 2020b) found the turning board to be one of the most effective ways to train balance in tango. The instability it creates forces dancers to use correct alignment in order to get stabilised instead of producing unnecessary additional muscle tension. Moreover, it creates immediate feedback so that participants can instantly understand if they are using their muscles or bone alignment to dance correctly. It is a simple and effective complementary training method to develop more stability in tango.

According to Ivan Walter Terrazas (“Tangomeet”, 2020b), a professional Argentinian tango dancer, the turning board training device is helpful for understanding the body alignment in a vertical axis during rotations in the axis.

In the opinion of Ofer Valencio Akerman, founder of the Tango Partner (2020) community, the turning board training device is an extremely useful practice tool for improving tango balance. It allows dancers to explore how they use the full extent of their feet and practise balance by clearly transferring their weight to the front, middle or back of the foot. This practice

allows them to discover the alignment changes they need to make in order to move effortlessly and with less tension.

Conclusion

The hypothesis according to which “by applying the classical training programme together with the new complementary training method using the turning board, young Argentine tango dancers will improve their balance, coordination and spatial orientation during turns at both individual and group levels” has been confirmed.

Just as special Argentine tango exercises using the turning board can be devised and adapted, various creative accessories for the upper limbs can be used for diversification and improvement: balls, sticks, hoops, fitness resistance bands, ankle and wrist weights, etc. Training diversification and the use of various accessories and creative equipment lead to an improvement in the technical level, greater motivation and involvement of dancers but also to breaking the monotony and providing real-time feedback.

Acknowledgments

The originality of the paper belongs entirely the author in terms of contribution, ideas, training plan and exercises specifically adapted to Argentine tango on the turning board training accessory, aiming to complement the classical learning and training methods.

A “Thank you!” to all dancers participating in the development of this scientific research.

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