THE TACTICAL PLAN - ANOTHER PRE-GAME SWOT APPROACH IN SOCCER PLAY

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Abstract

Soccer coaches, fitness professionals, and athletic trainers have long believed and taught that sports would keep them out of the doctor's office. Are they right? Researchers recently began to examine how muscles respond to stretching and how this relates to exercise performance and injury risk. Many studies found that reaction time, movement time, and balance were reduced after 20 minutes of standard stretching before exercise. At the elite level, even the smallest reductions in these important variables can have a significant effect on soccer players; therefore, stretching before training is vital. Consequently, many athletes experience feelings of guilt and regret, perceiving a need for more frequent stretching, particularly due to variations in muscle development at the age of 16. These findings suggest that it may be time to update the old rules about stretching. Moreover, this article emphasises that a suitable warm-up program resolves the problem when an appropriate muscle-stretching workout is performed, thereby strengthening muscle flexibility.

Keywords: plan-program stretching, soccer training, risk of injuries, tournament, competition type.

1. INTRODUCTION

The most fundamental principle of stretching seems to hold true, that is stretching improves flexibility. However, the important question to ask is: does the improvement in muscle flexibility actually protect athletes from injury?

The qualities of strength / power and speed expressed by the players during a game must be well trained using muscle stretching and joint mobility exercises, which can be added before and after the daily training sessions (Jovanovic M, Sporis G, Omrcen D, Fiorentini F,2011).

Specific muscle-building programmes for the most-used muscle groups are used in the pre-season and inter-season periods, and then as refresher programmes depending on the individual needs of the players (strengthening, stretching,

proprioception). Nevertheless, within the context of muscle-strengthening and injury prevention, strength tests aimed at evaluating and monitoring players are regularly scheduled in order to flag up any muscle weaknesses and/or imbalances resulting from joint instabilities. (Mahmoudi F. Daneshjoo A., Bahiraei S. Sahebozamani M, 2024).

In fact, the intrinsic characteristics of soccer activity patterns (a varied range of motor actions that involve both breaking and propulsive forces as well as distinct contraction modes and velocities that require the entire force-velocity potential of the neuromuscular system) that highlight the importance of the principle of specificity in strength and muscle power training cannot be understated (Saez de Villarreal E, Requena B, Izquierdo M, Gonzalez-Badillo J.J, 2015; Harris N, Cronin J, Keogh J, 2007).

The main goal of analyzing the running performance in the first and second half of the game is to identify the strengths and weaknesses of one's team, which allows to make a technical-tactical, phisycal plan for the next game (Han et al., 2022).

Knowing the structure of the game means understanding the different phases and subphases of the game and the positions of individual players, and it is the basis for recognizing specific situations in the game (Frikha M, Derbel MS, Chaari N, Gharbi A, Chamari K, 2017). The course of the game consists of numerous phases and transitions from the phase of attack to the phase of defense, and the players are obliged to see them, understand them and solve the tasks in the game using appropriate technical-tactical, physical, teoretical programmes (Sporis et al., 2012).

During a soccer match, players perform between 150 and 250 different actions, being forced to perform unilateral and bilateral repetitive and explosive movements such as jerks, tasks of acceleration and deceleration, rapid changes of direction, kicks and jumps in which unilateral dynamic balance is considered a fundamental component to ensure safety and precision (Andrzejewski, M.; Chmura, J.; Pluta, B.; Konarski, J.M, 2015).

The level of development in puberty of the player aged 14-15 years must be taken into account when planning physical preparation and the development of physical qualities. Although it is difficult to plan physical preparation specific to the stages of maturity and the bone age of players, it is possible to plan the development,

optimisation, frequency of training and injury prevention according to stage tournament category (Kartal, A, 2020; López-Valenciano, A.; Ayala, F.; De Ste Croix, M.; Barbado, D.; Vera-Garcia, F.J, 2019).

Optimising a player's strengths becomes a priority alongside working on weak points through small specific stimulation exercises. For players with a long career behind them, recovery between matches is fundamental and specific training is essentially aimed at preventing injury, taking into account previous injuries suffered. As the development of physical qualities is affected by the level of maturity, it is important to recognise when is the best time to work on them (Behm, D.G.; Blazevich, A.J.; Kay, A.D.; McHugh, M, 2015).

The level of training load combined with puberty accelerates the development of certain physical qualities such as strength and speed. Similarly, the training load may negatively affect performance through the prevalence of injuries around the time of puberty (13-14-15 years old) or in older players (Lauersen, J.B.; Bertelsen, D.M.; Andersen, L.B., 2014). Muscle building must be done progressively and taken into account when calculating the training load. Muscle strength is an important component of physical training in sport, both for performance and to prevent injuries (García-Pinillos, F.; Ruiz-Ariza, A.; Moreno del Castillo, R.; Latorre-Román, P, 2015).

Muscle strength or explosive training (which combines strength and speed) can take place in the weights room or on the field or even in mixed situations.

This activity may vary depending on the objectives of the tournament (who doesn't want to win all the matches) and the individual characteristics or positions of players.

The reasons for these pains are due to the physical demands specific to footballers, such as flexion of the trunk on the leg when shooting, tackling and the use of the adductors when stretching out the leg or changing direction. The characteristic stiffness of players after the peak in growth of the hamstrings, the psoas and the quadratus lumborum combined with a lack of strength of the oblique muscles, can cause shearing at the pubis, creating localised pain of the symphysis pubis (Zarei M, Namazi P, Abbasi H, Noruzyan M, Mahmoodzade S, Seifbarghi T, 2018). Our Exercises targeting this muscle constitute the core component of the stretching program.

Additional stretching and core conditioning exercises can help to prevent the occurrence of pain. My preoccupation was to find different means for different trainings and of course related to the intense games that followed every other day..

This program was adapted to the young players' musculature for the intense effort of the second day, but to prepare them for the following effort at the end of the training–stretch- relaxation-stretching (Soligard T, Nilstad A, Steffen K ,2010; Power K, Behm D, Cahill F, Carroll M, Young W, 2004).

That is why our program of stretching applied in Tournament (during 7days) is one which prevents injuries of young players. But let's see what the advantages show us. At warm-up-stretching program and muscular contraction and then at the end of the training session, we start again 10-12 minutes relaxation exercises through muscular stretching, we consider that the muscle injuries can occur very rarely, which means that the players can be used as much as they can play in the team.

2. MATERIALS AND METHODS

Participants

The study was conducted on Romanian "U" 16 soccer players on U.E.F.A. Tournament of Development in Ungary, 15-20 march 2024, a team which includes 18 players aged between 14 and 15 years. Duration: 3 weeks. Goal: developing the stretching programme and muscle power joint in order to reduce injuries in football. The application of the stretching exercise program was set before the training session and the recovery program with the muscular exercises and relaxation exercises. During the study I used the following research methods: the bibliographic method, active stretching method, repeat method and statistical-mathematical methods of graphic representation of the results.

The research stages were: the study of the bibliographic material; selecting the most efficient stretching exercises on muscular groups for the lower members on their posterious part (biceps femorial muscle); repeating the stretching exercices at every training and getting the feedback after every training by each young player; organizing and conducting the study; processing and interpretation of data derived from the research; establishing practical and methodological conclusions and recommendations.

In the framework of the conceived experiment, the team trained each day for 60-90 minutes, 5 trainings every week, plus a test at the end of the working week.

Workout 1- after 7 minutes of warm-up, the team continued with the following program:

1. Walking Knee Hugs with Overhead Reach: for each step, pull your knee toward your chest to activate your calf muscles and work your balance;
2. Walking with dynamic lunge - hip stretch-spine mobility- especially because the hip flexors are often tight in football players;
3. Hamstring Stretches - glute activation and stretching the calf muscles.
4. Hip Rotations - active leg and hip stability of the standing leg.
5. Jumping lunges before - they prepare you for all important movements, for landings and they strengthen the joint of the ankle and knee.
6. Jumping on one leg with loading - this is an important exercice because glute activation increases sprinting power and reduces the risk of hamstring strains.
7. Half-kneeling lunge - the background and the musculation of the stretched leg helps the anckle to be much tonified. The support leg stretched under the player helps at the mobility of the anckle and the knee.
8. Running with carrying the leg through the side - an important exercice for inguinal muscles mobility.
9. Performing high-knees – it stretches the quads, hip flexors and psoas muscle.
10. Walking on the hands and on the toes of the feet, the body stretches and tightens helping to stretch the muscles of the back, and tonifies the muscles of the arms and shoulders.
11. Doing bouncing skips – it strengthens the osteo-articular system? of the lower limbs.
12. Carioca - this is like running and passing the ball using the arms, but is more specific for lateral movements.

This programme lasts for 12 minutes. After 20 minutes, the body is prepared for any type of effort and move specific to football, with and without the ball. Workout 2- the team did 10 stretches exercises for cooling down:

1. Hip flexor and Psoas stretch - the hip flexors are a group of muscles that bring the legs up toward the trunk and help generate a powerful soccer kick.

2. Standing quad stretch - the quadriceps (quads) make up a group of muscles along the front of the thigh.

3. Standing calf stretch - the calf, or gastrocnemius, muscle runs along the back of the lower leg and is in constant use while running up and down the soccer field.

4. Lying piriformis stretch - there are many different ways to stretch the piriformis muscle that lies deep beneath the gluteus (butt) muscles. (This exercise is easy to do and is a quick way to relax and open the hips and target the piriformis muscle to stretch both sides).

5. Seated groin and inner thigh stretch - this simple stretch, sometimes called the butterfly stretch, works several muscles in the thigh and groin area.

6. Hip and lower back stretch - this simple stretch opens the hips as it stretches the muscles of the hips, groin and lower back. Hold the stretch for 20 seconds and switch sides and repeat.

7. Iliotibial stretch - it involves a tough group of fibers that run along the outside of the thigh that stabilizes the joints.

8. Seated hamstring stretch - the hamstrings need to be strong but not tight in order to endure the demands of running and kicking and multiple quick starts and stops during a soccer game. This simple hamstring stretch can help maintain the length in the hamstrings.

9. Achilles tendon-heel stretch - use this stretch to keep it loose. The key to do this stretch correctly is to bend the knee of the forward foot while keeping the heel on the ground. The stretch should be felt in the Achilles tendon, just above the heel.

10. Simple shoulder stretch - this a basic shoulder stretch can help open the chest and loosen tight shoulders before playing soccer.

3. RESULTS OF THE RESEARCH

The study revealed the effectiveness of the stretching exercises program at 14-15 years old even if a series of exercises were identified or adapted in the training sessions. Muscle and joint preparation must be sufficient to handle the high-intensity contractions and extreme physical demands encountered during the five-day competition (table 1).

The selection of training modalities, including specific methods and forms of stretching, is focused on supporting high-intensity muscle training**.**

The research results provide a presentation of the main indicators of an assessment system for injury prevention**.** This system measures the influence of sport-specific stretching training in 14- to 15-year-old soccer players**.**

Tabel 1. The number of injuries in this Tournament

The injuries identified	Team "U"16 ROMANIA (Injuries number)		Team "U"16 TURKEY (Injuries number)		Team "U"16 HUNGARY (Injuries number)		Team "U"16 CYPRUS (Injuries number)	
	First half	Second half	First half	Second half	First half	Second half	First half	Second half
Sprain	1	0	0	0		3	1	4
Muscle pulls	0	0	1	3	1	1	1	1
Thigh injuries	0	0	0	2	1	2	1	3

During the 6 matches, in 5 days, 26 incidents were recorded and 9 acute injuries. The games are played like this –play-one day, recovery-play-2 days, recovery, play. These 13 injuries, team Romania 7,6% were identified and all head injuries, 38,5 % of the Turkey team, 23,5 % of the Hungary team and 30,4 % of the Cyprus team (Fig.1)

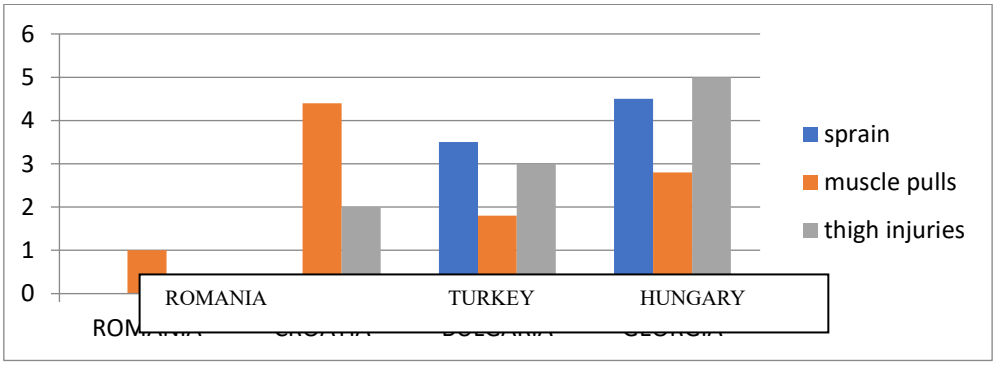
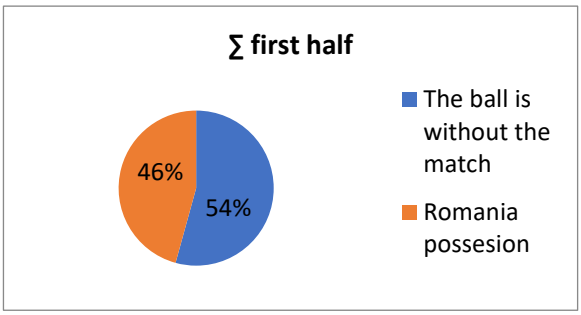


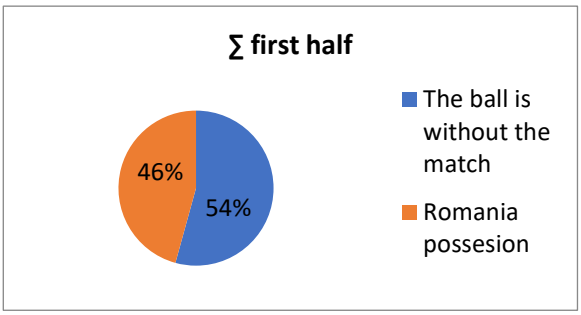
Fig.1 Comparative graphic of injuries

None of the serious incidents happened to the Romania team. However, in most cases, the exposed player seemed to be unaware of the opponent challenging him for ball possession (Graph 1+2).

Graph1



Graph 2



We can say that by implementing a comprehensive daily stretching and recovery program—both pre-tournament and before every match—the team can achieve better physical and mental priming**.** This routine enhances musculotendinous power and psychological resilience, enabling the team to maintain higher ball possession and improve their goal-scoring efficiency.

The imposed new program not only gave us physical freshness especially at the end of games (min65'-80') but also stability in lot of players (we had no serious injuries) and we could put forward the same "11". The results were -Romania - Hungary1-0; Romania-Turkey 3-2; Romania-Cyprus 1-0.

4. DISCUSSION

The purpose of this study was to determine the efficacy of stretching programmes on injury reduction rates at youngsoccer players in short tournaments. The results of the present study showed that the stretching programmes of the players after each training, but especially the warm-up programmes chosen according to the training schedule in a week of games, led to fewer injuries and thus we could line up the same "11" in every game, without accidents, which did not lead to a fluent, complete and

winning game. In the present study, the stretching programme used before and after the specific training significantly increased the non-injury ratio of our team among the other competitors of the tournament.

The comparison between the teams showed a significant main effect in the case of the Romanian team with only one accident in a single game compared to our competitors with 7 muscle injuries and 9 thigh injuries.

5. CONCLUSION

A thorough general warm-up is required before performing specific stretching. This routine should methodically activate key muscle groups in the lower limbs through controlled contractions to prepare them for deeper stretching. Our compound exercises focus on muscle activation**,** shoulder girdle strength, and core and posterior chain development**.** These areas play a pivotal role in high-impact actions such as recovery, deceleration, shooting, and tackling.

By incorporating dynamic stretching into the warm-up and a structured cool-down program**,** we can enhance the mobility and power required to improve a player's ball control and first touch. In this experiment we have noticed the motivation of the players in adaptating to the stretching methods day after day for the team's stability.

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