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Review article

THE INFLUENCE OF DANCE CONTENTS ON THE PRESCHOOLERS MOTOR FITNESS AND THEIR POSSIBLE APPLICATION IN PRESCHOOL INSTITUTIONS CURRICULUM

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Abstract. *This paper presents a research focused on dance contents, specific dance programs and preschool children motor fitness. The main goal of this paper was to collect and analyze studies that as an experimental treatment had the contents of dance activities and their impact on the preschool children motor fitness. The necessary literature and papers were collected through the following databases: Google Scholar, PubMed, SCI index and the available professional literature at the Faculty of Sport and Physical Education in Niš, as well as other available literature. The following keywords were used: influence, effects, preschool age, preschoolers, exercise, dance, dance activities, motor skills, motor skills and their adequate translation into English. Twelve papers that met the set criteria were selected for the final analysis. The following conclusion was drawn: there is a positive impact of dance contents on the preschool children motor fitness, therefore, they can be recommended for use as the adequate contents of the PE curricula in preschool institutions.*

Key words: *influence, dance, fitness, preschoolers, program, teaching process, education*

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1. INTRODUCTION

Preschool age is an extremely sensitive period of an individual's development and has always been in the focus of scientific interest of the profession. Most motor abilities, and with it certain habits and motor skills, develop precisely in childhood. Therefore, it is possible to influence them in the preschool period, from the fourth to the seventh year of life and up to the early school age, from the seventh to the eleventh year (Bala, 1991). Motor behavior depends on the level of maturity of the central nervous system. It is influenced by genetic (Malina & Bouchard, 2004) and external factors (Bouchard & Malina, 1997 according to Chaves, et al., 2015). In this period, it is possible to influence the complete personality of children through physical exercise because children react to physical activity with their complete intellectual and cognitive capacity (Ismail & Gruber, 1971).

It is extremely important for certain motor skills of children to develop at the right time. The lack of timeliness can affect many of them to be underdeveloped. If that critical period of growth and development is missed, it is very difficult to make up for it later, and the level of adoption gets lower (Kelly, 1985; Humphrey, 1991; Hamga, 1999).

It is an indisputable fact that most motor tasks and thus the entire activity of children is based on play. Through play children learn about life, through play children also go through the stages of human evolution (Tadić, 1985). In preschool institutions, through play children learn and acquire certain hygiene habits (e.g. brushing their teeth), they learn life activities (the game "Crossing the street"), good behavior (the game "Bon Ton") and the like. To put it in a nutshell, it must certainly be a well-planned and expertly managed activity in order to provide a high-quality and long-term stimulus for the development of all traits and abilities (Pejčić & Malacko, 2005).

Motor abilities at this age are definitely not precisely differentiated and we can label them as children's motor skills. It was already pointed out that organized physical exercise in preschool institutions is very important, but it turned out that they are insufficient by themselves. Mandatory physical activity which is carried out in preschool and school institutions is not enough to influence the increase of the child's overall physical activity and the improvement of its motor fitness (Cleland, et al., 2008; Pate, et al., 2008). Programmed activities improved children's motor skills on tests of coordination, flexibility and strength (Hraski and Zivcic, 1996). The results of research carried out in the last twenty years show a motor benefit in almost all examined areas (Kostić, et al., 2002; Dobrila, Sporiš & Hraski, 2003, Deli, Bakle, & Zachopoulou, 2006; Živčić, Trajkovski - Višić , & Sentderdi, 2008).

Therefore, additional forms of exercise and different and special programs for the development of motor skills of preschool children have been organized (Uzunović et al.. 2017; De Privitellio, et al., 2007), especially dance contents as a form of activity were implemented and their effects monitored (Pantelić et al.. 2018). Children's dance programs have a positive effect on the motor fitness of preschool children (Uzunović, Veselinović, and Stojanović, 2006; 2011). That experience was also shown at the age of younger schoolchildren (Marković, 2011). By combining with elements of gymnastics (exercises on the apparatus and on the floor), dance activities turned out to be an excellent content of the alternative physical education program for younger school age (Marković, 2016).

Children's dances or dance games (Kostić and Uzunović, 2013) are a special type of dance. They are composed of technical elements of other dances (folk, social, modern), but they are modified in such a way that, in addition to being rich in movements, they exist in special dance forms, different rhythms and specific choreographic solutions. Their application affects

biological growth and development, but also has an educational role in physical education (Uzunović, Kostić, and Stojković, 2010). The Institute for the Improvement of Education and Training - ZUOV). Children's dances have a positive effect on the development of most motor skills: coordination, speed, strength, endurance. They also enable normal mobility of all joints (Zrnzević et al., 2010), correct body posture, correct function of internal organs, which is a priority for the normal growth and development of preschool children.

Motor abilities represent a general feature of an individual or capacities that are associated with the performance of various motor skills, and which at the same time represent a component of those skill structures (Magill, 2004). Their development leads to the balanced functioning of the movement system, which represents motor fitness. The term "fit" in the narrower sense is a term used to denote the coordinated action of various human abilities and physical characteristics during the execution of physical activities with a certain degree of neuromuscular strain (Kostić, 2009). Dance can be defined as a form of musical experience, which through rhythmically determined movements contributes to the artistic expression of the spiritual states of man. In dance, a person expresses himself or herself with his/her body, movements and motions, which he/she shapes spatially, dynamically and temporally (Kostić and Uzunović, 2013).

The subject of this paper is dance contents, specific dance programs and motor fitness of preschool children. In a narrower sense, it focuses on the application of various dance activities for the development of motor skills of the mentioned population in the previous twenty years, and the possibility of their application in the contents of work in preschool institutions.

2. METHODS

2.1. Search Strategy

The collection of necessary literature and papers was performed through the following databases: Google Scholar, PubMed, SCI index and the available professional literature at the Faculty of Sport and Physical Education in Niš, as well as utilizing other available literature. The following keywords were used: influence, effects, preschool age, preschoolers, exercise, dance, dance activities, motor skills and their adequate translation into English.

2.2. Inclusion Criteria

The systematization of the found research was carried out according to the criteria of the type and impact of dance activities on the motor fitness of the examined sample.
The experimental research had to meet following criteria in order to be accepted for the final analysis:

- subjects were tested to determine motor skills and motor skills in general;
- only the persons not suffering from any chronic diseases participated in the research;
- experimental research included children - preschoolers, male and female, with an average age ranging from four to six years;
- dance programs were used in the research studies.

2.3. Data Collection

The experimental studies that satisfied the requirements were then examined and presented using the criteria listed below: reference (author and year of publication of the research), sample of subjects (total number of subjects and subgroups), program contents, tests or tested abilities that were used to determine motor skills and research results. The oldest of these studies was published in 2002, while the latest was in 2020. The articles in this collection gathered information on the sample size, age, variables, experimental, program and results. In the end, the qualitative analysis comprised 12 studies.

2.4. Exclusion criteria

The criteria for excluding the research studies were:

- research was conducted on school-aged subjects;
- experimental research was conducted on the subjects who did not practice the dance program;
- subjects were disabled children;
- theses, dissertations, congress abstracts, and proceedings were not considered, nor were qualitative reviews, systematic reviews, or meta-analyses.

3. RESULTS

3.1. Description of the Studies

Table 1, displays all of the information about the publications that made up the review. The sample sizes for the studies ranged from 25 to 66, and they included both boys and girls between the ages of 4 and 6. In total, more than 554 participants were included. A minimum of eight weeks and a maximum of ten months were spent practicing various types of dance. Preschoolers practiced dance 2 to 4 times a week.

The results showed changes in the parameters of motor status in preschool children: strength, speed, flexibility, coordination, balance, kinesthetic differentiation, orientation in space, rhythmic ability, fine control of hands, agility, proprioception, and endurance. Regarding morphological status, changes were observed in physical development, and in the parameters of social status there were improvements in social development. And finally, in psychological status changes were monitored for executive function, working memory, and cognitive flexibility skill.

The aim of the study is to determine, based on the available research, the impact of different dance programs on the preschool children motor fitness. First of all, research on the mentioned sample was sought. In addition, we searched for research that had a dance program or intervention in the experimental procedure. In the following table, papers that meet the set criteria are highlighted. The discussion of the results refers to the benefits of the implemented programs and the analysis of the program contents.

Table 1 Information about the publications that made up the review

Authors	Subject sample	Variables	Experimental program	Results
Kostić et al. (2002)	30 boys and 30 girls preschoolers	strength speed flexibility coordination balance	folk dances standard social dances rhythmic games dance improvisations with different music patterns 4 months 3x a week total 48 hours of dance	strength + speed (boys del. girls -) flexibility + coordination + balance +
Venetsanou & Kambas (2004)	66 preschoolers (36 boys and 30 girls) 4-6 years	development of motor abilities	combination of music/movement elements, singing games and dances *introductory traditional Greek dances*	kinesthetic differentiation + balance ability + orientation in space + rhythmic ability response ability +
Uzunović, et al. (2006)	50 preschoolers girls 6 years	individual development of motor abilities	accredited dance program "play, sing, create through dance" 3 months 2 times a week 30 minutes	speed + coordination + expl. strength + balance + flexibility +
Biber (2008)	40 preschoolers E + K 5-6 years	physical and social development	folk dance 2 months 4 times a week 32 dance lessons	physical development + social development +
Uzunović, et al. (2011)	36 preschoolers 6 years	individual development of motor abilities	accredited dance program "play, sing, create through dance" 3 months 2 times a week 30 minutes	speed + coordination + expl. strength + balance + flexibility +
Gallota, at. all (2016)	25 preschoolers 4 and 6 years 10 - physical activity 6 - dance 9 - swimming	BOT-2	clasical dance 4 months	fine control of hands + coordination + running speed + agility +
Marković and Višnjić (2016)	There are no data on the number of preschoolers	Influence of dance and play on motor engagement	12 activities with dance contents 12 activities with movements games	total engagement: 725 sec. of dance 707 sec. of games there are no stat. significant differences

Authors	Subject sample	Variables	Experimental program	Results
Chatzopoulos et al. (2018)	62 32 preschoolers-E 30 preschooler-K	proprioception rhythm static balance	creative dance program 2 months 2 times a week 45 minutes	proprioception + rhythm + static balance -
Pantelić, et al. (2018)	65 preschoolers E-34 K-31 6 years	coordination BOT-2	accredited dance program "play, sing, create through dance" 3 months 2 times a week 30 minutes	fan + jumping in place unilaterally synchronized + foot and toe tapping synchronized from the opposite side +
Uscategui Ciendua (2019)	44 preschoolers 4 to 7 years folk - 25 urban -19	motor development	urban and folk-dance 8 weeks 90- min	50% increase in manipulative component, 31% increase in locomotor component
Shen et al. (2020)	60 preschoolers around 4 years	Executive function Working Memory Skill Cognitive Flexibility Skill	street dance 3 x a week 40–50 min 24 hours of dance	Executive function + Working memory + Cognitive flexibility skill +
Cheverda et al. (2020)	46 preschoolers 6 years	Pedagogical experiment	sports dance 10 months	coordination + flexibility+ endurance+

Looking at the overview of selected papers, it can be concluded that two thirds of the papers represent research conducted in the last five years. This indicates the author's interest in the current issue of motor skills of the observed sample.

The subject sample comprised preschoolers up to the age of six years. Some research studies were focused just on one age population Kostić et al. (2002); Uzunović, et al. (2006); Uzunović, et al. (2011); Pantelić, et al. (2018); Shen et al. (2020); Cheverda et al. (2020), while in other studies the subjects were preschoolers of a larger age range, four to six, or five and six years. The total number of subjects ranged from forty to sixty subjects of both sexes.

4. DISCUSSION

Considering the theoretical aspect of the problem, the importance of special program activities was pointed out. It indicates an extremely significant benefit on the motor skills of preschoolers, regardless of which program was applied. De Privitellio, Caput-Jogunica, Gulan, & Boschi (2007) investigated how an organized sports program affects the motor skills of preschool children on a sample of 136 children (four to six years). The children were tested at the beginning and at the end of the experimental cycle in the areas of coordination, explosive strength, repetitive strength, balance, flexibility and agility. The

experimental program that was implemented with children rendered positive results, the biggest changes were seen in the assessment of repetitive strength, and the smallest change was observed in the assessment of flexibility. As compared to boys, girls showed better results on the tests for balance, repetitive strength and flexibility, while boys achieved better results on the tests of coordination and explosive strength. The authors recommend programmed activities at this age. This assertion was supported by the results obtained in a study that was supposed to answer the question as to what extent and how the sports school program can affect the coordination of preschool children through the research of Uzunović et al. (2017) on a sample of 57 preschool children. The experimental group implemented the sports school program for a period of 8 weeks (2 x 45 minutes each week). The control group had only regular activities in the kindergarten. The level of children's bilateral coordination was determined using seven tests, and balance was determined using nine tests at the initial and final measurements. The tests used in the research are from the BOT-2 test battery, where coordination is assessed as a separate composite with the help of bilateral coordination and balance subtests. It is assumed that the experimental program influenced the improvement of the results between the two tests of bilateral coordination assessment (on the three tests) and balance assessment (on one test). The obtained results point to the need for wider application of similar programs while working with children.

The combination of fitness and dance programs is very interesting. Cheverda et al. (2020) investigated the effectiveness of a fitness program with elements of dance sports for older preschool children. The effectiveness of the implemented program was evaluated in a pedagogical experiment lasting for nine months. The research was conducted based on the program and resources of the sports dance club "Supadens" from Kyiv. 46 children of older preschool age participated in the research. During the research, the dynamics of indicators of the biogeometric profile of body posture was studied. The proposed means had the maximum effect on the indicators of the state of the biogeometric profile of posture, such as the angle of the head, the angle in the knee joint, the triangle around the waist and the position of the feet. Such changes led to a statistically significant increase in the overall assessment of the biogeometric posture profile of fitness children using dance sports. Positive changes occurred in the indicators of the respiratory system and physical fitness of children. This indicates the effectiveness of the proposed teaching program. Of particular concern is the decrease in the level of motor activity of preschool children, the drop in motivation to participate in physical education and health classes. It is possible to improve the situation by including children in health fitness classes. The implemented program included three periods: preparatory, basic and "supporting", and contained several blocks aimed at improving the posture of children of the older preschool age, improving physical fitness, motivating children to engage in regular physical activity, and adhering to recommendations for a healthy lifestyle.

Combinations of different dance structures gave positive results on the transformation of motor skills. Physical activity during preschool age promotes learning sports and the acquisition of basic and complex movement skills. Gallota et al. (2016) investigated the impact of three different four-month programs of physical and/or pre-sport activities on the motor skills of preschool children. Twenty-five girls, aged between four and six years were involved in the research, 10 practicing physical activity, six practicing dance (classical), nine practicing swimming. The state of the motor skills of the girls was assessed before and after the intervention period using the "BOT-2 Bruininks–Oseretsky Test of Motor Proficiency-Short Form (BOT-2 SF)". Different effects of the program appeared in fine hand control and coordination, as well as in running speed and agility. The playful and very

varied content of the physical activity conducted by the specialized teacher was more effective for the development of motor skills of the preschool girls.

From the defined subject of research, the focus was on research studies of the motor skills of preschoolers. Motor tests were applied, and there were other pedagogical experiments since not all research studies focused only on motor skills (Biber, 2008; Cheverda et al., 2020). Fine motor tests VOT-2 Bruininks-Oseretsky Test of Motor Proficiency-Short Form (BOT-2 SF) were applied - (Gallota at al. 2016; Pantelic, et al. 2018) as well as other motor tests Motoriktest fur vier -bis sechsjahrige Kinder, MOT 4–6, Zimmer & Volkamer, 1987, and TGMD-2 (Test of Gross Motor Development). Uscategui Ciendua (2019) conducted the last and a series of the above mentioned research studies. TGMD-2 (Test of Gross Motor Development) includes: 1- movement skills: running, galloping, jumping on one leg, jumping over obstacles, horizontal jump and sliding; 2- manipulative or visual-motor skills: hitting a static ball, stationary dribbling, catching the ball, kicking the ball, throwing the ball above the head, throwing the ball below the waist. The goal was to determine the effects of the modern and folklore dance program on the motor development of preschool children. The programs were conducted over eight weeks lasting 90 minutes on a sample of 44 children aged 4 to 7 years (mk 5.64; of 0.68) at the Pablo VI District Educational Institution in Bogotá. The study had a quantitative approach, a descriptive scope both before and after the test, with a comparison of the two experimental groups: E1 (folk dance, n = 25) - kumbia, currulao, guanena, pasillos and joropo and E2 (urban dance - modern dance, n = 19) - hiphop, house and dancehall. The obtained results indicate positive effects on motor skills after the implemented dance programs. An increase of about 50% was evident in the manipulative component, and 31% in the movement component. It is recommended to include dance in school academic programs as a means of stimulation and motor development of children.

The authors investigated the impact of dance contents on children's motor skills where they singled out motor skills (strength, speed, flexibility, coordination, balance, suppleness) Kostić et al. (2002); Uzunović, et al. (2006); Uzunović, et al. (2011); Chatzopoulos et al. (2018); Cheverda et al. (2020), or they assessed the overall development of motor skills Venetsanou & Kambas (2004); Uscategui Ciendua (2019). Furthermore, the authors combined the analysis of the impact of dance on motor skills and the ability to express rhythmically by Gallot, et al. (2016); Chatzopoulos et al. (2018); Venetsanou & Kambas (2004). Executive function + Working memory + Cognitive flexibility skills represent the subject of research of a combination of cognitive and motor abilities (Shen et al. 2020) as well as physical and social development (Biber, 2008). Biber (2008) analyzed the effects of folk dance training on the physical and social development of preschool children. An experimental setting in this research with an experimental and a control group was used in accordance with quantitative research methods. The research was conducted on a sample of 40 children. The research included a total of 32 hours of folk dance training over two months, with four training sessions per week. Control group students attended their daily preschool education program. As a result of the analysis, it was revealed that there is a significant difference between the experimental group that attended folk dance training and the one that did not, in terms of physical and social development.

It is evident that in almost half of the studies the authors investigated the area of coordination Kostić et al. (2002); Uzunović, et al. (2006); Uzunović, et al. (2011); Gallota, at. all (2016); Pantelić, et al. (2018); Cheverda et al. (2020). In addition, since movement in rhythm is the basic means of expression in dance, the authors investigated the influence

of dance programs on the ability of rhythmic expression of the children of the examined sample Venetsanou & Kambas (2004); Chatzopoulos et al. (2018).

Research conducted with the aim of determining to what extent and how the dance program affects the coordination of preschool children by Pantelić et al. (2018) included an experimental group (34) who performed dance activities over a period of 8 weeks (2x35 minutes each week) and a control group (31) who performed regular activities in a kindergarten. The level of children's coordination was determined using the BOT-2 battery of tests. The analysis of the obtained research results revealed a statistically significant difference between the dance and control groups in three variables: fan, jumping in place unilaterally synchronized and tapping with feet and fingers synchronized on the opposite side. Statistically significant differences between groups indicate a positive effect of the applied dance program on the development of coordination of preschool children using the experimental dance program. The results show that dance activity is recommendable in the work program of the preschool institutions.

The contents of the experimental programs were definitely different. In the studies, the authors applied programs of almost all types of dances, folk dance Kostic et al. (2002); Venetsanou & Kambas (2004); Uzunović, et al. (2006); Bieber (2008); Uzunović, et al. (2011); 9 Pantelić, et al. (2018); 10 Uscategui Ciendua (2019), sports dance Cheverda et al. (2020), classical dance Gallota, at. all (2016), modern dance by Uscategui Ciendu (2019); Shen et al. (2020).

The traditional dance program, in its own form, is an excellent tool for improving motor skills. Venetsanou & Kambas, (2004) conducted a study on a sample of 66 students (36 boys and 30 girls) attending a public kindergarten in Argolis (Greece), aged 4-6 years (Ks = 59.79 ± 6.40 months). The "Test for children aged 4 to 6 years" (Motoriktest fur vier-bis sechsjahrige Kinder, MOT 4-6, Zimmer & Volkamer, 1987) was used to assess motor skills. Children in the experimental group (n = 28) attended an experimental program lasting 20 weeks, participating in two sessions per week, while children in the control group (n = 38) did not regularly participate in any organized physical activity program. Two-factor ANOVA analysis for repeated measurements was used for data analysis. From the obtained results it was observed that the introductory program of the traditional Greek dances can significantly improve the motor skills of children. The contents of the programs are designed to improve: recognition, rhythmic abilities, body awareness, response to music, personal space, tempo training, balance, bilaterality. Dance Games: "Karakatsanis" Greek Singing Game (4/4) "John Says...", Tambourine Singing Enigma, "All Around" Greek Traditional Singing Game, "Flowers Growing" (Personal Space Exercise), Hokey-Pokey, Train, Singing game “fat cat” with tempo changes, Acrobats - bending and stretching game-like exercises, “Little Helen” (Greek singing game), “A-be-ba-blom” (Greek singing game),”Back to the house” (reaction to music-play), “Little Helen “, “A-be-ba-blom”, “The Smurfs do gymnastics”.

A modern dance program was applied by Shen et al. (2020) with the aim of investigating executive functions presented as the center of cognitive, emotional and social functions and which plays an important role in children's cognitive development. Street-Dance, as a comprehensive dance form that integrates the characteristics of movement, music, rhythm, etc., requires coordination of individual sensory systems and a sense of musical rhythm and action. These are the same elements of activity found in previous studies that can improve individual executive function in children. In order to examine the promotional effect of street dance training on children's executive function, the authors

designed a street dance training program integrating the characteristics of each component of executive function. Sixty preschool children aged around four years (M = 52.4, SD = 3.95) participated in the study, which used a pre-post test experimental design. The dance group performed street dance training three times a week, 40-50 minutes, a total of 24 hours of dance; the control group was not trained. The results showed that 8 weeks of street dance training can promote the development of the executive function of the preschool children, and the effects of street dance training through the implemented program are indicated. Uscategui Ciendua (2019) conducted a study to evaluate the effects of a modern and folklore dance program on the motor development of the preschool children. The effects of folk dance (kumbia, currulao, guanena, pasillos and joropo) and urban dance (modern dance, hiphop, house and dancehall) were compared.

However, there is also a specially designed program called creative dance by Chatzopoulos et al. (2018). A study was conducted to investigate the effects of creative dance on proprioception, rhythm and static balance of preschool children. The experimental group consisted of 32 preschool children who participated in a creative dance program lasting 2 months (twice a week for 45 minutes), while the control group (30 preschool children) participated in an unstructured setting of free play. Dance concepts included body parts (head, arms, etc.), shapes (straight, symmetrical, etc.), relationships (body parts to body parts, body parts to objects, etc.); space (self space/general space), size (large, medium, small), level (high, medium, low), direction (forward, back, right, left, up, down, path) and focus; rhythm and speed (slow, medium, fast); force (energy, weight and flow); balance (balanced, unbalanced). Before and after the dance program, proprioception (active reproduction test), rhythm (k-rhythm test) and balancing on one leg were assessed. The results showed that the treated group had significantly better results on post-test measures of proprioception and rhythm as compared to the control group. No significant differences were found for static balance. It can be concluded that creative dance can have a positive effect on the proprioception and rhythmic synchronization of the preschool children. Given the importance of these factors for children's motor development, it is suggested that creative dance be included in early childhood curricula.

The contents of the experimental programs includes the accredited program "Dancing, singing, creating through dance". The program is intended for the children of preschool age and can be implemented at preschool ages of four, five and six. There is a special selection of dance games for every age. The dance contents of all games comprise all types of dances. The authors of the program rightly called this type of dance a children's dance. Children's dances or dance games (Kostić and Uzunović, 2013) are a special type of dance. They are composed of technical elements of other dances (folk, social, modern, sports, artistic), but they are modified so that, in addition to being rich in movements, they exist in special dance forms, different rhythms and specific choreographic solutions. Each dance game has its own name, is played in a certain rhythm, has a special educational, motor and dance task. For example Waltz: at the age of four, the dance game Spinko waltz 1 is played. The tempo of the waltz is much slower, instead of the classic waltz three-step, a step is played with attraction without transferring weight. At the age of 5, we play Spinko waltz 2. At a slightly faster tempo, moving back and forth and left and right; with the same step technique with pull but with turning by a certain number of degrees. At the age of 6, we play a real waltz three-step, at a slightly faster pace, but not at the real waltz pace (Uzunović, Kostić and Stojković, 2010). The idea is to achieve the realization of a specific dance in this gradual way. The authors tried their best to ensure that children play a specific dance in its entirety (rhythm, step technique, movement in space) or at least learn the

rhythm of certain dances so that when "age permits" they can learn the right technique of a certain dance. The educational note is reflected in the connection with various educational tasks of work in kindergarten. This is how you learn Bon-Ton, a sports game, a zoo, an orchestra or, in a special way, to educate yourself in space and develop motor skills and tempo through games such as circle dance and the like.

The mentioned program is composed of several different dances, which is also the case with the experimental programs of other authors. Kostić et al. (2002) conducted research with the aim of transforming motor skills with different dance contents. The subject sample consisted of 30 boys and 30 girls of the preschool age. Motor skills were assessed based on nine variables (one for strength, two for speed, two for flexibility, two for balance, two for coordination). After four months of treatment, 48 hours of dancing, the results showed better results in almost all variables; Uscategui Ciendua (2019) who applied traditional and modern dance; Pantelić et al. (2018).

The application of children's dance affects biological growth and development, but it also has an educational role in physical education. In particular, the influences in each phase of the lesson can be analyzed, as well as the overall engagement in directed motor activities. The study by Marković and Višnjić (2016), which investigated the influence of the contents of dance and games on the motor engagement of preschoolers, was carried out in the first half of the school year. 12 activities with dance contents and 12 activities with moving games were monitored. The duration of the phases of directed motor activities was as follows: the first A phase (introductory) - five minutes, the first B phase (preparatory) - five minutes, the second phase (main) - fifteen minutes and the third phase (final) - five minutes. The time of activity (engagement) was measured by randomly choosing one of the children, who was followed during the directed activity. The observed child did not know that he was the subject of the measurement. Data processing included descriptive statistics and t-test for small independent samples. Descriptive statistics parameters indicate longer engagement of children in the first A phase, the third phase and complete engagement with dance contents. The content of the game influenced greater engagement in the first phase B and the second phase. The contents of the game had a statistically significant difference as compared to the contents of the dance in the third phase. Total engagement with dance contents was 725 seconds, with game contents 707 seconds. The t-test does not indicate a statistically significant difference between the contents of dance and play in terms of the overall engagement of the preschoolers. The results indicate that activities with dance and game contents are very useful in working with preschoolers.

The authors were looking for solutions that will enable proper growth and development of preschoolers in all aspects. The essence is that the outcome of the conducted activity should be the application of what was learned in everyday life. The development of natural forms of movement is inviolable. Deli, Bakle and Zachopoulou (2006) examined the effects of an intervention program on the effectiveness of locomotor skills in preschool children. A twenty-week program was implemented on a sample of 75 children aged 5-6 years. The first experimental group had programmed movement, the second experimental group applied music and movement tasks, and the control group had free play in the program. The test results clearly showed that the experimental groups significantly improved their performance as compared to the control group in running, jumping, horizontal jumping and skipping. The authors concluded that the effectiveness of basic locomotor skills can be improved through different types of organized exercise in preschool institutions.

Children's dances have a positive effect on the development of most motor skills: coordination, speed, strength, endurance, and they enable normal mobility of all joints (Zrnzević et al., 2010).

4. CONCLUSION

Investigating the impact of different dance programs on motor skills - motor fitness of preschool children as a systematic overview research is a consequence caused by the coronavirus pandemic. The results of the collected studies are of great importance since experimental programs of different types of dances, different motor tests, different pedagogical experiments were applied and they all contribute to the same conclusion: dance programs have a significant impact on children's motor skills and as such are recommended in the implementation of physical education and health tasks in preschool institutions. There was no difference in the impact of the implemented experimental programs according to the gender of the subjects. The number of subjects ranged from forty to sixty. The programs usually lasted about two months, with different frequency, but about 32 dance lessons.

Based on the collected research studies, their selection and careful analysis, it can be concluded that the hypothesis that there is a positive influence of dance content on the motor fitness of preschool children has been confirmed.

The conducted systematic overview research is one in a series that had as its subject the motor skills of preschool children. This study makes a contribution to that scientific opus in the sense that the results of recent scientific-research studies on the examined sample can be found in one place. In a scientific sense, it should also be recommended to analyze the effects of specially designed programs on the motor fitness of preschool children. Therefore, different programs and different measuring instruments for assessing the motor skills of preschoolers are advisable.

The practical importance is reflected in the fact that in almost all studies, the authors suggested that such and similar dance contents should be included in the physical and health education program in preschool institutions.

If we have proven that dance is beneficial for the motor skills of preschool children, for their cognitive and social development, let us invite those who raise children:

TEACH THE CHIDREN HOW TO DANCE!

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UTICAJ PLESNIH SADRŽAJA NA MOTORIČKI FITNE PREDŠKOLACA I MOGUĆNOST NJIHOVE PRIMENE U PREDŠKOLSKIM USTANOVAMA

U radu je prikazano istraživanje čiji su predmet činili plesni sadržaji, specifični plesni programi i motorički fitnes dece predškolskog uzrasta. Osnovni cilj rada je bio da se prikupe i analiziraju studije koje su kao eksperimentalni tretman imale sadržaje plesnih aktivnosti i njihov uticaj na motorički fitnes dece predškolskog uzrasta. Prikupljanje potrebne literature i radova urađeno je uz pomoć korišćenja sledećih baza podataka: Google Scholar, PubMed, SCI indeks i dostupne stručne literature na Fakultetu sporta i fizičkog vaspianja u Nišu, kao i druge dostupne literature. Korišćene su ključne reči: uticaj, efekti, predškolski uzrast, predškolci, vežbanje, ples, plesne aktivnosti, motorika, motoričke sposobnosti i njihov adekvatan prevod na engleski jezik. Za završnu analizu je izdvojeno dvanaest radova koji su zadovoljili postavljene kriterijume. Zaključak je da postoji pozitivan uticaj plesnih sadržaja na motorički fitnes dece predškolskog uzrasta, te se oni mogu preporučiti kao adekvatan sadržaj u nastavi fizičkog vaspitanja u predškolskim ustanovama.

Ključne reči: *uticaj, ples, fitnes, predškolci, program, nastava, obrazovanje*