

Educational judo benefits on the preschool children's behaviour

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Summary

Introduction. The aim of this study is to examine behaviour changes of pre-school children (4-6 years) who participate in judo classes as reported by their parents.

Material and methods. The survey was carried out among 46 parents. Teaching programme of their children lasted 16 months in average and involved agility and acrobatic exercises, ball games and plays, basic elements of judo taught using the pedagogical principle of difficulties tasks „from easy to difficult”. A survey questionnaire including one open question and 13 closed-ended questions was used to evaluate the behaviour changes of the children.

Results. Judo training showed a very strong positive effect (>80%) on children which was manifested in being satisfied with the judo-skills mastered. Also, we observed a strong effect (60-80%) in solving problems by the children, starting conversation about training, starting physical exercises at home during their leisure time, persuading others, helping weaker persons solve their problems, positive changes in attitudes toward physical activity and waiting for the training day. The parents reported that the judo training improved several variables of children's behaviour such as fitness, self-discipline, serenity, prudence, courage, efficiency problem-solving, persistence in striving for achievement the goals despite the obstacles, socio-moral sensitivity, helping others and responsibility.

Conclusion. An educational judo programme give strong positive effect in behaviour preschool children and correspond to the socially demanded traits expected by families and teacher in school.

Introduction

The practise of physical activity promotes psychomotor and social development of child. Unfortunately the news technologies (internet, social networking, game video, play-station, computer, etc.) are the major recreative activity center for children anywhere [1]. Development of potential abilities of the child body in terms of development stimulation, adaptation to different environmental conditions, motor impairment's compensation and correction of postural balance should occur with prospection i.e. formation of a system of attitudes, motivation, skills and abilities that would ensure working on prevention and improvement of health, i.e. psychological and physical well-being [2]. The concept of body-mind connection is derived from Japanese mythology, and consequently these two are still regarded as essential complementary elements to be cultivated through judo training [3]. From philosophical viewpoint, judo was defined as a physical and morale education method allowing to strengthen the personality of individual [4-6].

A judo performance in young age will be not systematically reproducible in junior or senior categories [7]. Injury pre-

vention strategies increases the possibilities of judoka's success [8]. Physicians and coaches agree that the judo teaching should be taken seriously to avoid injuries (spine column deviation, bone fracture, etc.) and ensure more effective and safe organization of judo exercises for children [9]. In pre-school age (4-6 years), children improve a simple movements such as running, walking and more complex movements derived from different sports such as throws, holds, climbing, cycling or swimming [10]. Physicians recommend for children aged from 6 to 10 years to develop the general motor abilities before to practise competitive sports whose require specifics and complex tasks [9].

Concept of the study

Most parents experienced in judo have an influence on their children to try practising it because they knowledge the educational (moral code) values of judo and his benefits for the health. Therefore, the teaching programme oriented at comprehensive development which contains technical judo elements might contributes to stimulation of personality development traits useful in children's attending kindergartens or

families. Despite that judo is an educational sport and very accessible for anyone and at all age. Literature studies showed that practising judo by the preschool children (4-6 years) are rather scarce [11]. The aim of this study is to evaluate the behaviour changes of the children who participate in judo classes reported by their parents.

Material and methods

Subjects

The survey was carried out among 46 parents, whose children participated in judo classes. Thirty five (76%) parents were have large experience in different sports including team games (12) and individual sports (20). Only three parents practised combat sports (boxing, karate, wrestling). Eleven (24%) parents were not involved in any sports. All children: 36 boys and 10 girls were in good health and do not present any counter indication for judo training. Their age vary from 4 to 6 years whereas their motor apprenticeship experience ranged from 5 to 24 months. Judo training sessions were organized in the kindergarten. Two judo sessions per week proposed to the children but trained usually once with an average time ranged from 30 to 35 minutes.

Teaching programme

The teaching programme for children aims an improvement of basic motor abilities such as running, dynamic balance, climbing, throwing, holding, jumping, etc. Strong emphasis is on development of general fitness and gymnastics (stretching, doing bridges, somersaults, handsprings using mats, mattresses, balls, benches, bars or gymnastic rings). The focus of teaching is on basic elements of judo, such as bowing in standing position and kneeling (*seiza*), natural stances (*shizen hon-tai*, *migi shizentai*, *hidari shizentai*), defensive stances in standing and laying position, moving on the mat using various judo steps, moving on the mat while kneeling and lying, and the skill that might be the most useful for maintaining health i.e. falls such as, *ushiro ukemi*, *yoko ukemi*, *mae ukemi* and *zempo ukemi*, *kumi kata*, *uchi komi*, etc. Children who train judo longer are also familiarized with basic holds (*hon kesa gatame*, *yoko shiho gatame* and *kami shiho gatame*), body shifting (*tai sabaki*) and some elementary technical throws (*O-goshi* and *Osoto-gari*). The programme takes into consideration the difficulty in children's learning judo techniques [12]. All elements are taught in educational form or learning games in order to motivate the children to participate at the program. The drills are most often performed in pairs. The aim was to arouse child's imagination as much as possible through a task solution forms (indefinite). Otherwise when introducing a new gymnastic or judo elements, the main aim was on imitative methods, including direct imitation, with the child's task being to mimic the movement model demonstrated by a coach [13].

Research tool

Information concerning the effect of judo training on children was evaluated using a qualitative questionnaire validated

previously by Sterkowicz & Madejski [13]. The respondents answered to one open question of the values of judo and 13 closed-ended questions using a variables scale nominal (yes, no, I don't know). Descriptive statistical took into consideration the number of answers to the closed-ended questions. During interpretation of the result of the data obtained in the survey, we adopted an evaluation scale of the effect of judo exercises based on the frequency of „yes” answers:

- More than 80% - very strong effect
- 60-80%: strong effect
- 40-60%: moderate effect
- 20-40%: weak effect
- Under 20%: insignificant effect.

One exception was that the answer to the question 7 (Is watching TV or playing more important than judo training?) was scaled based on the frequency of "no" answers.

Results

a) Values of judo perceived by the parents' of children

Parents emphasized a variety of values of practising judo, which concerned physical fitness and health (agility, coordination, strength, flexibility, form), and psychosocial traits (courage, respect, discipline, responsibility, regularity, persistence, prudence, diligence, concentration, sensitivity, independence, assertiveness, self-confidence, serenity). They also pointed to development of sports interest, cooperation in the peers' group, improvement in self-assessment, consistency, sense of duty and the need for competition.

b) effect of judo on children observed by parents

According to the parents, a very strong effect of practising judo on their children was manifested in being satisfied with the skills developed through training (Question 8 à 97.8%) (Figure 1).

Parents stated a strong effect in solving problems by their children (Question 1 à 78.3%), starting conversations about training (Question 9 à 78.3%), starting physical exercises at home during leisure time (Question 3 à 76.1%), persuading

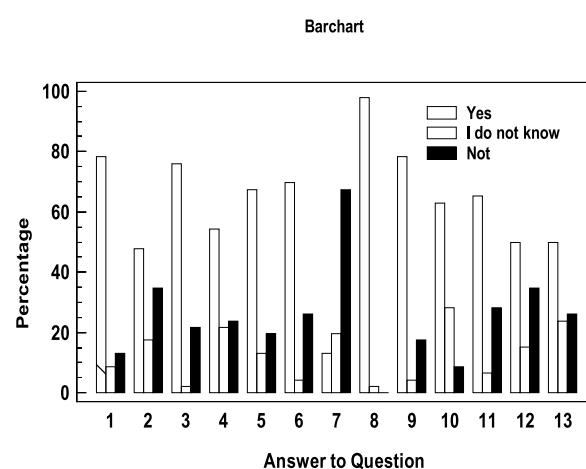


Fig. 1. Business barchart with size proportional to the frequency of parents' answers to questions 1-13.

others (Question 6 à 69.6%), helping weaker peoples solve their problems (Question 5 à 67.4%), positive changes in the relation of the child to physical activity (Question 11 à 65.2%), waiting for the training day (Question 10 à 63.0%),

Medium effect was reported by parents in improved self-discipline (Question 4 à 54.3%), being more excited with judo trainings than with other classes in the kindergarten (Question 12 à 50.0%), changes in attitudes to the nearest community (Question 2 à 47.8%) and personality changes such as e.g. being more kind-hearted, sensitive and courageous (Question 13 à 50.0%).

Discussion

In our knowledge, this study is not the first one in the literature examines the impact of educational judo on the psycho-sociological behaviour of preschool children (4-6 years) attending daycare or kindergarten [11]. We introduced new tasks as like all the judo elements are taught in form of educational or learning games in order to motivate the children to participate in the program. The judo coaches signify that "Introducing pre-school age children in the preparation of content specific and non specific means judo aimed predominantly harmonious physical development, knowledge at a opportunities to move the body segments, relations established between them, of spatial-temporal orientation and balance, the acquisition of behavioral norms that encourage positive social attitudes, stimulate imagination and creativity, develop communication skills and moral qualities of character, will lead to transfer after successful practising any sport, including judo" [11]. The current study shows that parents perceive the effect of judo training on personality of their children in physical (health and fitness), emotional (self-discipline, serenity, prudence), intellectual (courage, easier problem-solving), motivational (persistence in striving for achievement of the goals despite the obstacles), and socio-moral (sensitivity, helping others, responsibility) areas. Similarly to the results of our study, Spanish children start learning judo typically between the ages of four and eight [14]. At the ages from 4 to 6 years, more than 60% of both boys and girls were able to perform at specific developmental levels for several motor skills like catching, running, jumping, throwing, kicking, striking and hopping [15]. Judo expert coaches agreed that training volume in this age category should not be big (2-3 workouts per week with 45 minutes each one) than in our teaching [11]. The following aspects of mastering judo throwing techniques by the youngest athletes should be emphasized:

1. Ease with which tori may achieve balance and uke imbalance
2. Ease with which tori may achieve posture control
3. Ease in adjusting to space-time (precision, timing or proprioception)
4. Ease in achieving intersegmentary coordination
5. Ease in achieving correct direction in pushing and pulling actions

6. Ease with which uke achieves ukemi (falling without the risk of an injury) [12].

Sterkowicz and Franchini [16] showed that the *ashi-waza* and *te-waza* are the most technical used in competition maybe for their ease. In the same way, Almansba et al. [17] showed that *osoto-gari* is very easy technical and can be learn by anyone in short time compared to *seoi nage* and *uchi mata*, whereas the most difficult were *okuriashi barai* and *tomoe nage* [12].

The both boys and girls of this study and 10.5 years old children who attend primary schools [18], parents saw a very strong effect of judo practicing on improved sense of happiness and satisfaction of children caused by learning new sports skills 98% vs. 90% respectively for abovementioned studies. Some authors [18] studied the judo effect in 40 children's school aged from 10 to 11 years on with 19 months of training experience of showed even more beneficial effects (as a very strong) on the sense of duty, improved frequency of conversations about training, higher emotional involvement during talking about training compared to physical education classes. Practising judo allow to children to give a positive effect on their independence, self-discipline, helping weaker people, waiting with excitement for the training day, changes in attitudes to physical education, higher notes during physical education classes and positive changes in personality. The respondents claimed that practising judo has medium effect on improvement in learning and persuading others. Furthermore, small effect was reported for changes in the children's attitudes towards their nearest community [18]. In another study a trend was found suggesting that a primary school-based 8-week educational programme to improve falling skills may be more beneficial for the prevention of falling-related injuries in children with low levels of motor activity [19]. In the same way, members of Polish junior national team found beneficial effects of this sport and the values it has on social relations [6]. The subjects indicated the opportunities for starting physical activity that had the effect on non-aggressive outlook on life (84%), striving for achievement of goals and respecting the rules of fair play (80%), and modesty despite the success (48%) [6]. Furthermore, a study of seniors demonstrated that they were characterized by high self-assessment, strong personality (ego), emotional maturity, persistence and calmness [20]. Therefore, a positive effect on development of judoist's personality can be observed with age and experience. Another study was conducted among university students of physical education who were participating in a compulsory 12-week university course of judo and combat sports in order to assess teaching skills [21]. The criterion for assessment was how head, hands, hips and legs are protected when performing simulated back fall, expressed as a general index of test (0 to 14 points) recommended by Kalina et al. [22]. Term-long training sessions significantly limited the risk of body injury during fall. A factor responsible for reduction in susceptibility to injuries is the curriculum implemented. The students of physical education can eventually become very helpful teachers employed in public school system in Poland which is

currently being reformed in terms of popularizing the fundamentals of judo, with particular focus on falls [21].

The time of motor activity in children is very weak in other classes (mathematic, etc.) and also insufficient in education physical session. Educate the parents to discover to their children more activities before school age seem very important to sensitize their children to practise regular physical activity.

Conclusion

Our finding indicate that an educational judo program give strong positive effect in behaviour preschool children and correspond to the socially demanded traits expected by families and teachers in school. Moreover it more easy to integrate it in education and school sport program compared to others activities which require more pedagogical materials as swimming, hockey, skating, etc.

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