

Investigation of Kabaddi Group Game on Reducing Percentage and Severity of Stuttering in Female Children 7 to 11 Years

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Citation: Sepahi S. Investigation of Kabaddi Group Game on Reducing Percentage and Severity of Stuttering in Female Children 7 to 11 Years. *Electronic J Biol*, 12:4

Received: July 19, 2016; **Accepted:** August 03, 2016; **Published:** August 10, 2016

Research Article

Abstract

The research aimed to investigate effect of Kabaddi local game reducing the percentage and severity of stuttering among girls 7 to 11 years old in Saravan city. The population consisted of 23 students from Saravan city primary schools in the 2016-2015 school years, of which, 20 as sample size using non-random sampling method selected purposefully. The method used in this study is quasi-experimental and pre-test - post-test control group so that effect 8 weeks Kabaddi game in both group intensity and frequency of symptoms of stutter were measured. To measure the frequency and severity of symptoms of childhood stuttering, stuttering tests and tests to measure severity of stuttering were used. First test Kolmogorov - Smirnov test to determine the normality of data distribution and equal variances was used to examine Levine. Then, to test hypotheses, parametric t-paired test to determine intergroup differences between pre-test and posttest groups and parametric t-independent test to determine differences between groups in pre-test and post-test were used. After running 8 weeks in three sessions per week Kabaddi game for half an hour each time frequency and severity of symptoms stutter were measured again. The results showed that children with stuttering in two training groups and controlling for age, severity and the percentage of stuttered were homogeneous and uniform because the comparison mentioned in the pre-test variables were not significant. Difference between mean changes severity and the percentage of children stutter that exercise in control groups was not statistically significant.

Keywords: Kabaddi group game; Slurred speech; Respiratory volumes.

1. Introduction

One of the most common and most complex speech disorder that fits its intensity and complications caused by the individual's personal and social life varying degrees in turmoil and worries and causing damage in how to communicate with other people is the stuttering process. Stuttering is a complex

phenomenon of psychomotor extraordinary that in the normal process of speech one finds and the turbulence in the flow of verbal expression (repeat, stopping and pulling involuntary prophecy) determined.

Prevalence of stuttering in communities around 5% about 70 to 80 percent of these cases has no specific treatment to recover. Moreover, 20% of them stuttering become stable [1]. Methods of treatment of stuttering, treatment are directly and indirectly; research and experience show that the indirect method is more appropriate because it creates awareness of consequences such as anxiety, stress and anxiety will lead to the negative effects of disruptive factors in the treatment are considered and can increase the severity of stuttering.

Therefore, it is recommended the child's awareness and sensitivity of its stay at the same level. One of the ways to implement indirect ways to increase coordination between the systems involved in speech, games that increase breathing capacity (Such as Zhu games, inflatable balloons, trumpet, harmonica) [2].

Stuttering is a speech fluency disorder through involuntary interruption in the flow of speech is determined and there are different types of this disorder often begins in childhood and prevalence is about 72% estimated in some studies. In most cases, it is due to neurological offer. Because stuttering is an involuntary and affects a person's social relevance and shifting, negative effects on mental health, mental, emotional and individual. Recent studies show that stuttering is correlated with high levels of social anxiety. In addition, adults with stuttering at higher risk of negative experience with social and mental health. For example, they may have shown during stuttering; also, experience problems at work back stutter their experience. Above shows, that many stutterers may have lower quality of life than other people.

When estimating the quality of life for wide range of issues such as satisfaction of their communication

capabilities, life satisfaction, health and her understanding of its ability to achieve your goals in life. However, researchers to evaluate the effectiveness of treatments in communication disorders have noted the importance of quality of life, unfortunately, research on quality of life in the realm of stuttering, only in recent years has been considered. Klamps and Ross in 2004, the quality of life in a small group of adults with stuttering using multi-dimensional measurements such as jobs, self-esteem, marital status, family status, emotional and social functioning were evaluated. They found, however, does not seem to stutter over the quality of family or marital exuberance of the participants have a negative effect, but this people has a negative impact on self-esteem and emotional stability.

In 2009, Craig, according to the demographic characteristics and 200 adults who stutter field with 200 people with natural speech, using the SF-36 scale compare the quality of life related to health in pay between the two groups. The results of this study show that stuttering performance on social, emotional, vitality and mental health has a negative impact. In this regard, Jaros in 2010, the quality of life of people with stuttering before and after polishing treatment and the results of this observation suggests that stuttering may be beyond the ability of individuals to affect the production of words with fluency and appropriate rhythm. In addition, a wide due to the effects of this disorder can have on quality of life; outcome must be something more than a mere assessment of changes in speech fluency. In our country, due to cultural differences, need to be clarified in terms of quality of life for people with PWS, especially health-related quality of life. This study was conducted as a step in the treatment of stuttering at the beginning of his appearance is removed. For the treatment of stuttering in childhood is associated with greater success and the age of the person of primary school age pass resistance to treatment and return more stuttering. On the other hand, this is a new work has already been done and can be a step towards improving the quality of life for most children stuttering and success in later life and adults.

1.1 Theoretical foundation

Investigating the causes and treatment of stuttering

Speech is a series of quick movements of speech limbs, is speech should be done in milliseconds to reach the listener receives the message correctly [3]. Developmental stuttering is a speech fluency disorder that affects approximately 1% of the population [1]. Since stutter as move symptoms is very similar to movement disorders such as Tourette's syndrome, Dystonia and Parkinson's disease, so stutter as a motor disorder and is considered a single cause has been identified and specified in relation to it.

In recent years the theory of the causes of neurological and neuromotor is more agreement constituted and

developmental stuttering is a neurological disorder so that - pose motion due to abnormal motor control and not only speech but also other problems with the motor [4]. A study by Sommer et al. [5] conducted indicates stuttering is a brain disorder and neural stem is unknown, but various theories have been proposed in this regard [5]. In this context signs of hemispheric asymmetry, abnormal functioning of the basal ganglia, bad supplement and coordinate action in the cerebellum and motor cortex function have shown and poor performance view that the basal ganglia are associated with stuttering and is not new but related to about 1920.

Stuttering is one of several mental disorders in which a person's speech remains and becomes chronic. When starting in boys than in children and 2 against girls, but because the percentage of recovery is girls than in boys, adult male to female ratio is 4 to 1. Stuttering 2 as repeated involuntary sounds or syllables or pulling is usually at the beginning of the word or obstruction and 3 sudden stop telling limb", is known (m m machine). This repetition and drag the words often associated with adverse behavior and the frequent occurrence of stuttering is observed [3]. Along with other speech disorders, stuttering usually has the following symptoms: alternating repetition of sounds, syllables, words, and phrases repeated syllables so that the sound of "Ouh" in the word will be replaced by the correct sound. Shake the muscles around the mouth and jaw during speech volume increase during the pulling of tension and scramble when certain words do not express a sudden stop or delay the expression of specific words in the speech organs of speech sounds [4].

Falah, in a study entitled "Effect of exercise on clinical and spirometric indices protests asthmatic patients" did [5]. The results showed that the paired testing, exercise is effective in increasing the respiratory condition score signs and symptoms of asthma such as shortness of breath, shortness of breath, cough and significantly reduced due to the effectiveness of exercise in improving symptoms and symptoms and spirometric indices and improvement of pulmonary function in asthmatic patients is recommended sport as a complementary medication and asthma treatment should be used to promote progress.

"The effect of learning a second language, (English) on self-esteem and pattern of stuttering first language, (Farsi) the language, (English) examined [6]. Subjects were tested before and after in terms of self-esteem and also after the tests were measured in terms of stuttering after learning a second language, stuttering dominant pattern has not changed and such other peers stutter, stutter if the second pattern people like children. Their self-esteem has been rising during training. Bahrami, "Speech to the attention of dependency in children and adolescents with developmental stuttering" * Run through the method of measurement is dependent using available sampling and detection

of a speech therapist 30 persons help students 13-18 years developmental Stuttered of schools were selected. The research tools include a text to read, a device for recording the speech and stuttering severity scale (SSI-3), respectively. Research on the status of individual assignments) just read the text (and dual-task) to read text with a finger-tapping task performed. The collected data were analyzed using t-test. Results showed that the severity of stuttering in dual task conditions (divided attention) increased. Naderi research on 40 stuttering and 40 non-stuttering children, the results of the study showed the Persian version of the childhood stuttering test the validity and reliability of the Persian version is acceptable for children.

Salehi study titled "Impact of rhetorical method in reducing symptoms of stuttering" done. In this study, efficacy in reducing symptoms of stuttering was rhetorical [7,8]. The findings indicate that education rhetoric is effective in reducing the four areas of the symptoms of stuttering. So aerobic exercise to increase lung volume and improving respiratory function included and an important cause of stuttering is low lung volumes. Thus, this therapy can be used alongside other therapies. Given with physical activity and maintaining a healthy body, students also divine duty towards your body, in worship, work and serve their community achieved more success. With a good training program in various skills and motor sport, it can be physical benefits such as reduced heart rate, cardiorespiratory fitness promotion, optimal setting metabolism, increase range of motion and increase muscle strength and endurance and won the students.

2. Research Hypotheses

2.1 First hypothesis

Average change variable stuttering severity in children with stuttering in the control and experiment groups was not significant.

2.2 Second hypothesis

Average change variable percentage of stuttering in children with stuttering in control and experiment groups was not significant.

3. Research Methodology

The study is quasi-experimental and control group with pre-test-post-test. The population of this study

included 23 students with stuttering in all elementary schools Saravan city in the 2015-2016 academic years that includes 12 schools.

Accessible and purposeful sampling, 20 of whom are non-randomly selected as subjects and randomly divided into two groups of ten control and training. To measure the frequency and severity of symptoms of childhood stuttering, tests measure the severity of stuttering were used. All data are expressed as standard deviation (Mean ± SD) was expressed.

First Kolmogorov - Smirnov test determine the normal distribution of data and Levine's test was used to assess equal variances. Then, to test hypotheses, parametric t-paired test for intergroup differences between pre-test and post-test groups and parametric t-paired test to determine differences between groups in pre-test and post-test were used. The significance level for all calculations 0.05>P was considered and all the calculations with the SPSS software 20 version was conducted.

3.1 Descriptive features

In Table 1, Descriptive features subjects and variables between the two groups in pretest and posttest are provided. Statistical Data Mean (SD) age in years, severity of stuttering. The results of statistical tests of Kolmogorov - Smirnov and Levine showed that the study has a normal distribution and its variance is homogeneous. Descriptive statistical analysis of age [P=0.82 and t=0.22(18)] revealed a significant difference between the exercise and control these variables between the two groups was not significant. It also compares the variables of intensity [P=0.99 and t=0.01 (18)] and the percentage of stuttered [P=0.94 and t=0.07 (18)] in the pre-test was not significant. Therefore, children with stuttering in training and control groups in terms of age, stuttering severity and rate of homogenization and were the same.

4. Hypotheses

4.1 The first hypothesis

Average change variable stuttering severity in children with stuttering in the experiment and control groups was not significant. In Table 2 and Figure 1 compares the results between the groups means variable stuttering severity in children with stuttering provided training and control groups. Independent

Table 1. Descriptive features subjects and variables.

| Variable | Group | pre-test | | Post-test | |
|---------------------|------------|----------|--------------------|-----------|--------------------|
| | | Average | Standard deviation | Average | Standard deviation |
| Age | Experiment | 8.40 | 0.96 | 8.40 | 0.96 |
| | Control | 8.30 | 1.05 | 8.30 | 1.05 |
| Stuttering Severity | Experiment | 5.20 | 1.23 | 5.10 | 1.10 |
| | Control | 5.21 | 1.31 | 5.20 | 1.31 |
| Stuttering Percent | Experiment | 13.43 | 6.08 | 13.30 | 6.17 |
| | Control | 13.21 | 6.40 | 13.33 | 6.40 |

Table 2. Mean change in children with stuttering, stuttering severity variable ($0.05 \geq P$).

| Variable | Group | Average | Standard deviation | Mean difference | df | Amount of t | Significant |
|---------------------|------------|---------|--------------------|-----------------|------|-------------|-------------|
| Stuttering Severity | Experiment | 0.10 | 0.31 | 0.10 | 9.00 | 1.00 | 0.34 |
| | Control | 0.00 | 0.00 | | | | |

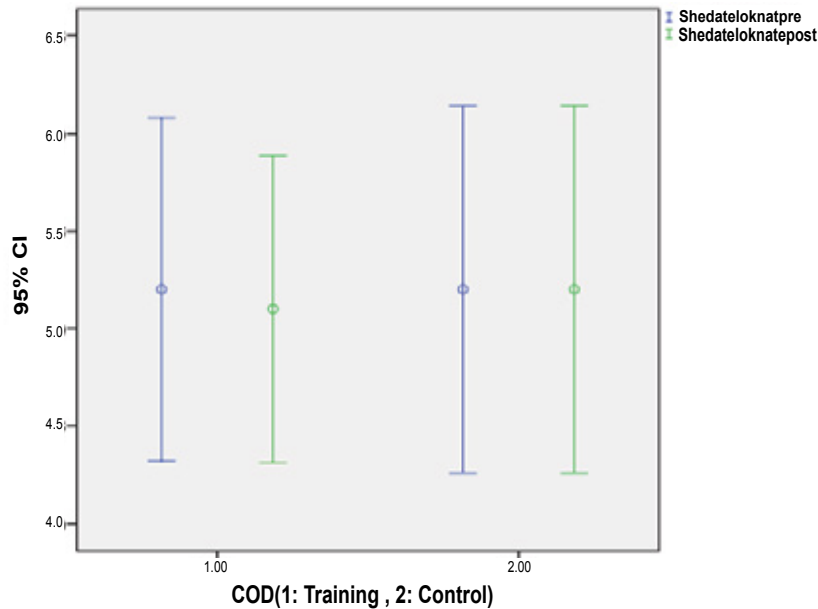


Figure 1. Compares the average change variable stuttering severity in children with stuttering in the experiment and control groups.

t-test results of both strains showed a significant difference between children with stuttering, stuttering severity variable changes in exercise and control groups was not statistically significant [$P=0.34$ and $t=0.00$ (9)]. The fifth hypothesis that there is no significant difference between the average variable stuttering severity in children with stuttering in the experiment and control groups is confirmed.

4.2 The second hypothesis

Average variable percentage of children with stuttering in experiment and control groups was not significant. In Table 3 and Figure 2 compares results between the groups means change variable stuttering percentage of children with stuttering provided in experiment and control groups. Independent t-test results showed that the two strains stuttering is a significant difference between the percentage of children with stuttering variable in terms of experiment and control groups was not statistically significant [$P=0.15$ and $t=1.50$ (18)].

The sixth hypothesis that there is no significant difference between the average variable stuttering percentage of children with stuttering in experiment and control groups is confirmed.

5. Discussion and Conclusion

The first and second hypothesis research results showed that children with stuttering in two experiment and control in term of age, severity of stuttering were homogeneous and uniform because the comparison mentioned in the pre-test variables were not significant.

The difference between mean changes severity and the percentage of children who stutter in experiment and control groups was not statistically significant. Pashoh Evaluation of the efficacy in clinical and spontaneous recovery in stuttering intervention for children with speech disfluencies revealed that clinical methods are more effective than spontaneous recovery. Zamani the effect of a long way in reducing stuttering speech showed an effective method in reducing stuttering speech technique extends the boys with mild stuttering and the sustainability and stability of this method in the speech of the people there even three months after the intervention. Therefore, according to the impact of sports and play physical, emotional and social skills of children; in combination with other methods of treatment of stuttering or without combination it can be synchronized with other methods to improve child growth and increased confidence he would be of great importance.

Table 3. The mean change in variable stuttering percentage of children with stuttering ($0.05 \geq P$).

| Variable | Group | Average | Standard deviation | Mean difference | df | amount of t | Significant |
|--------------------|------------|---------|--------------------|-----------------|----|-------------|-------------|
| Stuttering percent | Experiment | 0.13 | 0.51 | 0.25 | 18 | 1.50 | 0.15 |
| | Control | 0.12 | 0.09 | | | | |

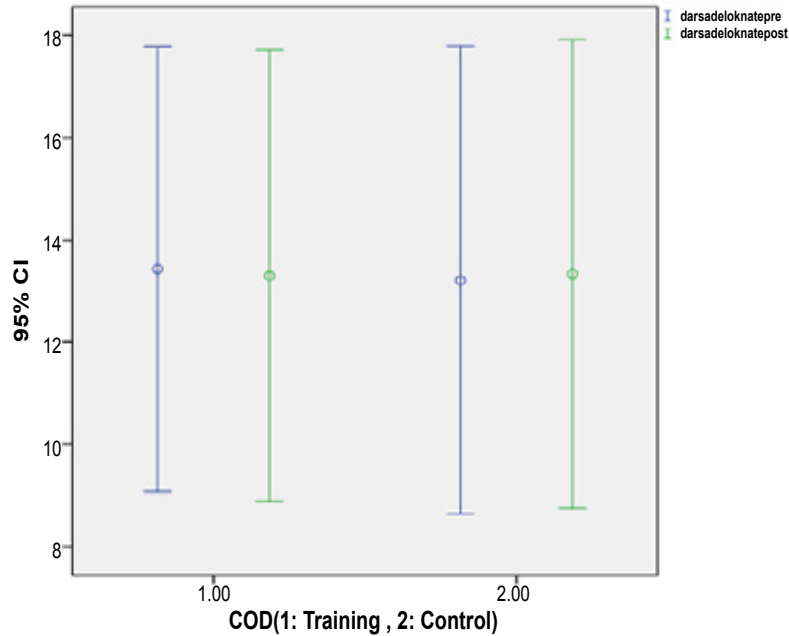


Figure 2. The mean change in variable stuttering percentage of children with stuttering in experiment and control groups.

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