

Studying Effect of Age on Feelings and Outlooks Related to Speech among Stuttering Students

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Abstract: The importance of a multi-dimensional approach in assessment of stuttering individuals has been more specified in recent years. Affective reaction check list provides facility to assess aspects of this disorder. Recent study has been carried out by affective reaction check list in order to assign age effect of stuttering students on emotions and outlooks related to speech. This study has been done on 43 students in Tehran at different ages, ranging 6-11. Students were asked to fill out a questionnaire based on their viewpoint and thought. Kruskal-wallis parametric tests were used to analyze data. In the second level of affective reaction test, there is a significant difference between scores of stuttering students of all ages. As a helping tool, this questionnaire enables us to examine cognitive, emotive and behavioral problems of stuttering students thus, specify age-appropriated therapies and be able to perform needed speech and behavioral changes.

Key words: Stuttering Affective reaction Age effect

INTRODUCTION

Stuttering has been known as a complicated and multi-factorial disorder [1]. Stuttering which is considered as one of the most important speech psychiatric disorders, has been noticeable for many researchers and due to its history has been known earlier in human history and has a more general understanding than the other speech disorders. However, in other aspect, it can be considered as one of the most unknown speech disorders because, despite of extensive investigations conducted, this disorder is still left as a multi-dimensional, complicated and mysterious one [2]. In other definition, stuttering is a complicated and prevalent disorder which has behavioral, excitatory, neurologic dimensions that is characterized by repetition of sounds, drawing and spelling [3].

Academically, stuttering is a disorder which happens in psychological aspect of speech and causes many spiritual and affective problems in a child and different factors could be involved in initiation

and continuation of this [4]. Over the years many theories and therapists were unanimous on the issue that perceptions related to speech in stuttering individuals have an basic role in assessing and planning for stuttering treatment as a multi-dimensional disease [5].

Yet, the nature of intrinsic characteristics of problems that a stuttering person faced with is left unconcerned in assessment and therapy sessions [4].

Studies conducted over the past decades indicate more negative affective reaction and speech mental derangement in particular speech occasions among stuttering student than those who don't stutter [6]. So, researchers have done beneficial efforts in the field of assessing viewpoints of stuttering persons as an important issue [7]. Stuttering affects different aspects of life an individual who stutters. These individuals experience many negative reactions in their life, such as communication problems in key situations, low life satisfaction and reducing individual's ability to achieve their goals [8].

A child who stutters has an attitude about speech at least at age 6 that is significantly different than the children who don't stutter [9, 10, 11]. Researches show that stuttering individuals (as a group) have more negative attitudes about their speech than those don't stutter. As the age increase, this difference that is observable from 6 years old will increase [12]. Examining those who their speech fluency has problem is usually restricted to counting viscosity in speech. psychiatrists and researchers generally agree that merely use of counting viscosity as a tool for assessing stuttering person is highly uncertain and doesn't have stability and paying attention to only one aspect of this disorder is not correct [13]. Behavior assessment battery note to this fact that to assign stuttering, we should also consider cases except repetitions, drawlings, viscosities like those are seen in individuals who don't stutter [14]. Behavior assessment battery can at least provide internal data that are external observation complementary which are provided by therapist and other important persons around the child. Although this directory reveals clinical importance of internal reactions of children who stutter but, this information are not enough to classify these children. This information is necessary but not enough. To fully recognize this problem and clinical intervention about stuttering children's problem, children's action, their reaction and other behaviors dependent to viscosity should be evaluated and consider in treatment [4]. In other word, according to Cooper, from the viewpoint of diagnosis it is not proper to name a person stuttering unless beside sensible viscosities, we consider factors accompanying with it such as emotions, viewpoints and other behavioral factors [15]. Although many researchers diagnosis that problems which a stuttering person is encountering with are beyond disorganized behaviors but, they don't examine their patients and visitors by a multi-faceted comprehensive examining method and result to a one-dimensional view to them [16]. Comprehensive assessment check list of individual's experience in adults that presented in (2006) by Yaruss and Kazal, pay to multi-dimensional approach in adult stuttering assessment [17].

In recent years, importance of multi-dimensional approach on stuttering assessment specially children and teenagers have been increasingly known. Recently, has been found that Behavior assessment battery are valuable in children assessment (even 3-4 years old) [18]. Affective reaction check list, which is a normative and innovated method by Brotten, provides possibility assessment of this disorder. Given by increasing age of stuttering students they get more information about their speech problem, the goal of this study was investing this

question whether age effect on test scores of affective reaction and negative effect of stuttering on elder students can be studied by this method or not. Recent study is conducted to assign age effect of stuttering student on emotions and viewpoints related to speech via Affective reaction check list.

MATERIALS AND METHODS

Recent study is a cross-sectional study that investigates age effect by using affective emotional reaction check list among stuttering student. For preparing tests, first we send e-mail to the test creator to ask permission for using test in a research work. Then its foreign form translated and checked by speech therapy professors. Then its Farsi translation again translated to English and this stage checked twice by two English language experts. Then, translated test to English after its translation to Farsi was sent to test creator. To check the validity of test, a questionnaire was prepared for 10 experts who were speech therapists. Experts gave score to each question according to suitability of test cases based on their professional opinion, ranging 0-10. After averaging of these surveys, suitability of each question calculated and, if not, one or more items corrected. In order to assign test reliability in each age group, sample size formula used and according to presented figures in "BEHAVIOR ASSESSMENT BATTERY" (BroTten, Vanry chaghem, 2007) and replacing relevant figures in the formula, 43 stuttering students were chosen.

The study population in this paper comprised of children in age of 6-11 in state schools and speech therapy centers in Tehran. First, at least 6 stuttering students from each educational grad who consulted to a therapy centers and schools, after assessment and having necessary qualifications were chosen for testing. Admission criterions were that students shouldn't have speech disorder except stuttering, according to 100 words test have at least 3-5 percent stutter, have 3-5 session record treatment, don't have structural disorder like plate cleft and dental anomalies in speech organs. Dismissal criterions were non-cooperation of students in each of test stages.

Subscription was taken from each of the students parents. Affective reaction test included 50 items (question) which a five-scale question was obtained for each of the questions. Student should grade to each questions from 1 (not scared) to 5 (too scared) based on his/her personal experiences, thought and emotion. In this level of test, if a student didn't experience that speech occasion, he/she should choose grade 1. Thus, the total

grade of 55 items from affective reaction was between 55 to 275. The test was carried out again after 20 days and based on prior agreement with parents and school of clinic's officials. If there was any special problem to run the second stage (child has an exam, unwillingness, being sick and parent's discontent during interval between conducting exam) we did all we had to do to fix the problem. If we didn't succeed despite of all these efforts, we would look for another student and start again from the first stage.

RESULTS

Brotten, Vanry chagem (2004) carried out reviewed affective reaction check list for 271 non-stuttering and stuttering Belgian students. The results of this study showed that statically, there is a significant difference between non-stuttering and stuttering students' mean scores on affective reaction part. These results demonstrated usefulness of students' reactions to affective reaction checklist questions as a tool to distinguish between non-stuttering and stuttering individuals. Also, mean scores of affective reaction test for stuttering students had a significant relation with age [10]. Results of this study showed that statically, mean scores of affective reaction test in stuttering student in the second stage is significant and have a relation in a high level.

Vanry chagem and Verchese (2004) did a study on speech situation check list test and compared non-stuttering and stuttering students. They conducted Affective reaction check list for 79 non-stuttering children and 19 stuttering students in elementary and secondary school in age of 6-13. Results showed that stuttering students, have more affective reactions and speech mental derangement discussed in affective reaction check list than non-stuttering students at the same age. Due to small size of stuttering sample, age effect didn't calculate [6].

Vanry chagem, mokati (2006) tested 45 non-stuttering Pakistani students in age of 8-11. Their goal was gaining a stable and reliable assessment in order to obtain normative data about children in non western. Affective reaction scores reported by non-stuttering Pakistani students in number were higher than the non-stuttering American and Belgian children at the same age. If this study replicated, result show effect of cultural difference in Affective reaction check list scores between non-stuttering and stuttering children in the entire world. In this study, effect of age didn't computed [19]. In Vanry

chagem and BrotteA study (2007) on speech situation check list test, for stuttering student, mean scores of affective reaction test and standard deviation were 89.04 and 24.75 and for non-stuttering students were 74.15 and 18.08 respectively. Mean scores of Affective reaction test in surveyed non-stuttering students had a significant relation with age effect (2). In the second level of conducting test in recent study, test's mean scores had a significant and high level relation with age effect.

In recent study, in order to assign effect of age on test's results, we did Affective reaction on 43 stuttering student in age of 6-11. In this level, we examined whether there is any significant difference between different age group or not. In this part, due to lack of conditions to do Anova Parametric Test, age effect on Affective reaction test's scores conducted by Kruskal-Wallis parametric Test.

As is evidence from the table, there is a significant difference between scores in affective reaction test at the second stage for stuttering student in different ages (p.

DISCUSSION

Only in two studies of research conducted on Affective reaction test, mean scores of test was compared with age effect. In both studies, mean scores of affective reaction test were significant with age effect. In the recent study, mean scores of the test in the second stage have a significant relation with age effect. Results demonstrate that, speech problems reported by stuttering children, in elder stuttering children is bigger than younger stuttering children. This revealed this important issue that as stuttering children grow up and their knowledge about society's unfavorable reactions increase, they will have more negative emotions and viewpoints than the younger children.

We can understand of this study that our society have a poor knowledge and unfavorable behavior in how to treatment with stuttering children. Unfortunately, as these children are growing up they are under different kinds of pressure and daily mental struggles even at home or outside of the family environment. As an auxiliary tool, this questionnaire enables us to more accurately assess cognitive, behavioral and emotional problems of students proportional to their conditions and be able to do needed speech and behavioral changes. These results show that children's responses to affective reaction check list questions are proper tools for assessing and treating cognitive problems, emotions and viewpoint related to stuttering individual's speech.

Table 1: Comparison between affective reaction test's score for different age group in stuttering students by Kruskal–Wallis test

Significant level	Mean	Average grade	Number	Different age group	
.21	91.42	14.11	9	6	First stage
	127.28	24.67	6	7	
	147	26.83	9	8	
	143.83	23.33	6	9	
	162.28	27.77	9	10	
	148.25	18.25	6	11	
.04	93.14	11.28	9	6	Second stage
	129.71	24.92	6	7	
	146.66	29.06	9	8	
	148	24.5	6	9	
	165.85	27.73	9	10	
	146.62	17.63	6	11	

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