Original Article

The Effectiveness of Verbal Self-Instruction Method on Pessimistic Attribution Style about Negative Events in Children with Dyslexia

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Objectives: The aim of this study was to investigate the effectiveness of verbal self-Instruction on pessimistic attribution style about negative events in children with dyslexia.

Methods: The study was semi-experimental with pre and post-test and control group. The statistical population consists of all dyslexic students of Maktab Ali School in Tehran City. Forty students were selected by convenience sampling method and randomly allocated to two groups: experimental and control. Experimental group received verbal self-instruction, Mychnbam and Goodman method in 8 sessions, two sessions per week, each lasting 45 minutes; while the control group received only the routine school training. The measurement was Children's Attribution Style Questionnaire, and data analysis using multivariate analysis of covariance.

Results: Negative pessimistic attribution style (general, stable and internal) were significantly decreased ($p < 0.005$) in the experimental group in comparison with control group after intervention.

Discussion: Verbal self instruction can be applied in children with dyslexia for improvement of attribution style by psychologists, teachers, educators, special schools, parents and all those who are dealing with these children.

Keywords: verbal self-instruction, pessimistic attribution style, Dyslexia, Children

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Introduction

Dyslexia is determined by impaired ability to recognize words, inaccurate and slow reading and poorly understood in the absence of mental retardation or substantially sensory impairment. The main feature of reading impairment is obvious poor performance in reading skills which is lower than the persons with normal IQ (1). Almost 80% of children with learning disabilities are dyslexic (2) and despite the existence of this disorder in both genders, it is 3 to 4 times more common in males than females (3). Reading is the basic tool for learning (4). Students who have difficulty in reading are not able to read problems in mathematics lecture, so they will have problems in mathematics. Because these students cannot read properly and comfortably, they will also have difficulty in writing too (5). This disorder may have a negative impact on a person's self-esteem and self-concept in long time and this again would affects the academic achievement of student and would create a vicious cycle (6). Dyslexic students compared with normal peers, attribute their success and failure to external factors in a higher rate. These students are less likely to attribute their success to intrinsic controllable and sustainable factors and attribute more to luck or external uncontrollable and unstable factors (7) Emphasis on uncontrollable external and unstable factors in dyslexic students and their academic failures, gradually lead to poor academic self-concept formation in comparison with other students (8). Academic self-concept and locus of control are the variables that have been consistently emphasized (9). Although these two variables may be observed in students differently but this difference is higher in comparison of normal and dyslexic students (10, 11). Dyslexic students fail in school for different reasons and consider academic success is impossible. These beliefs lead to frustration and failure to do homework. The lack of effort would lead to subsequent failure and reinforce negative pessimistic attribution style (12). Peterson et al (13)

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believe that attribution style contain two types of events: (a) positive events and (b) negative events. Each type has three components: Internal-external attribution, stable-unstable attribution and general - specific attribution. Internal-external attribution includes attribution of the causes of success and failure to factors within the person, against attributing it to factors outside the person: environment or situation. Stable-unstable attribution includes attribution of the causes, of success and failure to stable factors versus short-term and unstable causes. General specific attribution include attribution of the causes of success and failure to every situation, instead of specific situation (14,15-17) In fact, attribution style offers a framework for evaluation of optimism and pessimism structures, and may be linked to learned helplessness concept. The academic performance of students who have a negative pessimistic attribution style, is low (18). Self- Instruction method is one of the cognitive-behavioral techniques that resolve the problems of dyslexic students with negative pessimistic attribution style successfully. This technique devised and developed by Meichenbaum and Goodman (19). By using this technique, students are faced with a situation of failure or success, and they are asked to make a verbal statement for their attribution. Similarly, students will be asked again during training declare sentences (like I did not do it all the time, which means I have to work harder or I was not able to give the correct answer, because I used the wrong solutions), first aloud, then whispering to finally tell in his thought. The main objective of the demand from students for verbalization these attribution styles is change the way they think about their pessimistic attribution style (20). Therefore, the purpose of this study was to investigate the effectiveness of verbal self-instruction on negative pessimistic attribution style in students, with dyslexia.

Methods

The study was semi-experimental study with pre and post-test with control group. The statistical populations were all dyslexic students of Maktab Ali School in Tehran. The sample size of similar studies and confidence level of 0/95 were used to determine the sample size (21). Forty dyslexic students selected by convenience sampling method and randomly allocated to two groups: experimental (n=20) and control (n=20). Inclusion criteria were male elementary third and fourth grade students with dyslexia, aged 9-11 years, normal IQ and being monolingual. Exclusion criteria were sensory impairments such as hearing or vision impairment and having math or writing disorders. Sampling was done after obtaining informed consent from the parents and the students. The measurement was Children's Attribution Style Questionnaire (CASQ) that has been made by Nadine Kaslow, N. and Richard Tanenboum, R in 1996. It contains 48 questions with scoring 0 or 1. It evaluates three domain of attribution style (stable-unstable, general-specific internal-external) and assesses optimistic and pessimistic attributions. This questionnaire has been prepared primarily for children 8 to 13 years but is also applied for children 6 or 7 years old. The test performance consumes 20 minutes and the child should be put in a position forth in the questionnaire and select the option that if he was in the actual conditions were more likely to choose it. Internal consistency with Cronbach's alpha test has been reported 0.75 (21).

The procedure started with completing the attribution style questionnaire two groups. Next the experimental group received 8 sessions of 45-minute, 2 sessions per week verbal self-Instruction training. The control group did not receive these training. After last session, the questionnaires were completed as post-test by two groups. Self-Instruction program was developed by Meichenbaum and Goodman in 1971. The program aims to change the negative pessimistic attribution style in dyslexic students. The program is trained based on cognitive-behavioral adjustment, both individually and in groups. In this program, each meeting also reviewed the training provided in the previous session and, following out the instructions. The next step is training began at the end of each session and the subjects' questions were answered. The content of training sessions for the experimental group was as follows. Session 1: Welcome, introduction of the meeting to the students and the needs of self-verbal method were explained. They were also acquainted with the first phase of Verbal Self-instruction. Session 2: The students were asked while performing tasks command themselves whispery. Session 3: The students performed tasks as examples and after each episode stopped and said to the scholar how have ordered themselves. Finally, the subjects were asked, using this method to perform their daily tasks. Session 4: After reviewing the previous session and presenting the examples by student, explanations about phrases that documents

the success pleasant and unpleasant events are used and their role in a person's self-concept was presented. Session 5: The subjects read their examples and by helping researchers to modify them. Then they were told, verbal Self-training can be used in attribution expressions. Session 6: While reviewing the previous session and review examples of the subjects were asked to read their statements with evidence. Session 7: While reviewing the previous session and review examples of subjects were asked to say phrases in documents internally. Session 8: Last session of verbal Self-instruction process and its applications in terms of attribution were reviewed.

Results

Forty students with dyslexia participated in this study. The mean and Standard deviation of the ages of the students, fathers and mothers were (9.45±0.76), (36.5±3.4), (31.6±5.5) years respectively. The means and standard deviations of pessimistic attribution scores of the students in pre-test and post-test in two groups, are shown in table (1).

Table 1. Means and standard deviations of pessimistic attribution scores of the students in pre-test and post-test in two groups.

group	Pessimistic attribution	Pre test		Post test	
		Standard deviation	Mean	Standard deviation	Mean
Experimental (n=20)	Internal	1.45	5	.97	2.75
	Stable	1.45	4.75	1.35	2.85
	General	1.57	5.05	.85	3.25
Control (n=20)	Internal	1.17	5	1.35	4.55
	Stable	1.08	4.85	1.05	4.85
	General	.75	4.95	1.31	4.50

The table shows that the scores of pessimistic attribution of the students were significantly decreased in 3 domains in experimental group in comparison to control group after intervention. These changes were not observed in students of the control group.

Table (2) shows that with control of pretest effect, the posttest score of pessimistic attribution style of negative events in 3 domains decreased significantly in experimental group after intervention.

Table 2. Comparison of the effects of the post-test with control group

Source of change	Pessimistic attribution	Df	F	P-value	Coefficient effect	Statistical power
Pretest	Internal	1	10	.75	.00	.06
	Stable	1	.41	.52	.01	.09
	General	1	.170	.68	.00	.06
group	Internal	1	19.52	<0.001	.37	.99
	Stable	1	21.76	<0.001	.40	.99
	General	1	10.62	<0.001	.24	.88
Error				32		
Total				40		

Discussion

This study showed that verbal self-instruction was effective on reducing negative, pessimistic attribution style (internal) in students with dyslexia. Other studies concluded that verbal self-instruction change attribution style and causes students to communicate between their efforts and success. The results are also consistent with the studies that found Verbal self-instruction increases student learning achievement and efficiency. As a result of frequent failures, dyslexic students reach the conclusion that regardless of the amount of effort they do, still fail, and eventually give up. They attribute their failures to lack of ability and their success to external factors (21). Repeated failures may also lead to the formation of pessimistic attributions (6). Pessimistic attribution styles are due to an incorrect thought patterns, and these patterns can be changed by changing the pessimistic attribution styles; cognitive modification. One method of cognitive correcting is verbal self-instruction. So the Verbal self-instruction program helps students by changing what they say to her and to modify their behavior under Verbal control and to engage in the learning task actively. This program tries to change the student judgment about his failure; so he assesses again his expectations and his abilities and not give up in the face of failures. Thus verbal self instruction can

reduce the internal negative pessimistic attribution style in students (22). In Verbal self-instruction technique that affect the performance, soundless for themselves (23). So it increases student motivation and helps students to change their attribution by learning strategies and metacognitive skills. When students get these skills they understand and learn to control their fortunes and their success by their ability. Thus Verbal self-instruction can reduce overall negative pessimistic attribution style knowledge to students. In explaining these findings can be noted that the verbal component of Self-step programs tailored to children's negative pessimistic attribution style and learned helplessness model is designed.

In this program, students will be familiar with optimistic and pessimistic attribution style and their features and aspects this enables them to be more flexible in academic affairs and generally have optimistic view of life events. Dyslexic students learn to ask the reason of adverse and uncomfortable events in him and in the outside world through verbal self- instruction. They should also learn that when they are the cause of trouble, they should assume their mistake and try to correct their behavior and if they are not causing the problems, they should still value their own. Many negative emotions experienced by dyslexic students due to having pessimistic attribution so verbal self-instruction approach helps students to know changing emotions and thoughts, changes the starting point of this issue positive. It seems that verbal self-teaching; create significant achievements of the knowledge, using adjusting and attribution style skills and the range of their ability.

Conclusion

The verbal self instruction can be used in theological education, by counseling and clinical teachers, professionals, and parents, who have key roles in interventions for children with dyslexia. They can change pessimistic attribution style in this group of students. This parallel to educational programs can along with academic orientation and proper incentives to bring in students and improve basically how they react towards the educational problems. This study had some limitations: The effect of verbal Self-instruction have only been studied in dyslexic students in Tehran; so the results are not generalizable to other parts of the country. It is recommended to perform this method in longer period of time, in female students, other groups of learning disorders. It is also recommended to perform this method by teachers, school counselors and individuals or groups who seeking for changing and retraining of incorrect attribution of students with learning disability. Parents and teachers should be aware of children's attribution style as Possible, to prevent of stabilization of the non-adaptive attribution style. Parents and teachers are recommended to notice the attribution styles of children, especially in children with learning disorders and if they have a maladaptive attribution style, correct it by using various methods.

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