

Effective implementation of selected intervention on attention deficiency and behavioural problems in school children

Mrs. Hindu MathiAlthi, Research Scholar, Malwanchal University, Indore

Prof.Dr.Peter Jasper Youtham, Research Supervisor, Malwanchal University, Indore

Introduction

The young people of a country are the greatest hope for the future of that country. Only when children are healthy and happy in all aspects will it be possible for society as a whole to construct a magnificent country in which happiness, peace, and stability are the norm. The development of children ought to be fostered both at home and in schools in order for them to mature into responsible, creative, and physically fit individuals who make valuable contributions to society. If a youngster has trouble concentrating on homework because of inattention or hyperactivity, it might have a negative impact on the child's overall academic achievement. According to an estimate made by the Centers for Disease Control and Prevention (CDCP) from the year 2022, about 7% of children between the ages of 3 and 17 will be diagnosed with attention deficit hyperactivity disorder (ADHD).

Under the assumption that low concentration is a problem among school-aged children and that interventions are available to help them improve it, the goal of this study was to determine whether or not concentration-enhancing activities helped the concentration levels of children with ADD or ADHD who were between the ages of 6 and 11 and attending a sample of selected primary schools.

The Components and Procedures

The research was carried out using a research methodology that was considered to be quasi-experimental, and it included two groups of school-aged children (50 kids in the experimental group and 50 students in the control group). The students at these two public primary schools were selected using a method known as purposeful sampling. Input, development, and conclusion were the three phases of the General System Theory that were followed by the idea of the design. These steps were suggested by Ludwig Von Bertalanffy.

Tools

a) Compiling the data included using demographic factors and variables. b) An modification of the Vanderbilt's Assessment Scale that was created by the National Institute of Child Health and Human Development (NICHQ) in order to assist with the diagnosis of ADD/ADHD in children. Both before and after treatment, children diagnosed with attention deficit disorder and hyperactivity are given Bhatia's Battery of Performance Tests of Intelligence to measure their cognitive functioning (BBPTI).

Methods This research compared the results for two groups of school-aged children using a methodology that was similar to a quasi-experimental trial (50 in the experimental group and 50 in the control group). A intentional sample technique was used to obtain participants from two elementary schools. Participants were recruited. Input, development, and conclusion were the three phases of the General System Theory that were followed by the idea of the design. These steps were

suggested by Ludwig Von Bertalanffy. a) Demographic information was considered throughout the process of collecting this data. b) The National Institute of Child Health and Human Development (NICHD) has produced an updated version of the Vanderbilt's Assessment Scale, which is used to diagnose attention deficit hyperactivity disorder (ADHD) in children. Both before and after treatment, children diagnosed with attention deficit disorder and hyperactivity are given Bhatia's Battery of Performance Tests of Intelligence to measure their cognitive functioning (BBPTI). The author of the research administered the Modified NICHD Vanderbilt's Assessment Scale to children ages 6 to 8 in order to determine whether or not they have ADD or ADHD. The study was carried out with the participation of sixty children diagnosed with ADD or ADHD from both of the participating schools. Of those students, thirty were assigned to the experimental group, while thirty were assigned to the control group. Using the BBPTI, initial measurements were taken to determine the concentration levels of each group. The experimental group participated in a series of activities meant to promote attention for a total of two days, each day consisting of thirty minutes of activity. This routine included activities such as word cancellation, colour cancellation, colour cancellation, beading, storytelling, and problem solving. On day 11, a post-test was conducted in which both groups were evaluated using the BBPTI scale to determine how focused they were.

Results

According to the results of the pre-test, it was discovered that both the experimental group and the control group had essentially comparable levels of concentration prior to participating in activities designed to enhance concentration. The treatment group's mean scores on the concentration post-test came in at 9.2 ± 1.16 , whereas the control group's scores were 3.3 ± 0.88 . Both before and after the treatment, the experimental group and the control group had their concentration levels compared to one another. The results of a t test carried out on a total of 50 patients showed that the performance of the experimental group was considerably higher than that of the control group. There was a statistically significant gap between the experimental group and the control group in terms of the post-test mean concentration score. Following the completion of the calculations, we obtained the results $t(7.36)$. We used a chi-square test to look for evidence of a correlation between students' levels of concentration just before an exam and demographic factors such as gender, family composition, socioeconomic status, or age range. However, we did not find any evidence of such a correlation.

Discussion

It was discovered that the majority of individuals in both the experimental and control groups of the research suffered from a condition known as attention deficit hyperactivity disorder. A screening exam, based on a revised version of the NICHD Vanderbilt's Assessment Scale, was administered to students in grades six through eight at two government primary schools. 118 youngsters between the ages of 6 and 8 were spread between the two schools. A random selection was used to choose thirty kids with ADD or ADHD from the first school. Another school turned up thirty kids who were an exact match for the ones in the experimental group. These kids went to a separate school. Prior to the beginning of the experiment, a sample of children diagnosed with ADD or ADHD who were in elementary school were given a test to evaluate their level of concentration. Pre-testing was done using Bhatia's Battery of Performance Tests of Intelligence in order to measure the amount of focus possessed by children who had ADD/ADHD and hyperactivity as well as those who did not have any of these conditions. In the group that participated in the experiment, the average concentration was 0.96, but in the group that served as a control, it was just 0.35. Therefore, it was clear that both groups were operating at a similar level of attention prior to the implementation of Concentration Enhancement Activities. This was shown by the fact that both groups

The findings of a post-test that was only provided to the experimental group, which was the group that had participated in the activities designed to improve attention, and compared to the results received by the control group, which was the group that had not participated. Both groups were given another round of the Bhatia's Battery of Performance Test of Intelligence in order to reassess their levels of focus after the Concentration Enhancement Activities were only given to the experimental group and not to the control group. According to the findings, the levels of concentration in the experimental group were 9.2 ± 1.16 whereas the levels of concentration in the control group were 3.3 ± 0.88 .

It is possible to assess the efficacy of activities that improve concentration by conducting an experiment with a control group and comparing the results of tests taken before and after participation in the activities. In order to fulfil the aforementioned goals, a statistical significance test was carried out in order to compare the mean concentration scores of the children who participated in the research before to and after the administration of the tests. After the intervention, the levels of focus in the experimental group were compared to the levels they had at the beginning of the study, and there was a statistically significant improvement in the levels of attention in the experimental group. The results of the T test are as follows: When employing the t-test to compare the post-test concentrations of the experimental group with those of the control group, a significant difference of 7.36 was discovered ($p < 0.01$). It has therefore been shown that activities designed to improve children's ability to concentrate are effective.

Certain demographic factors were shown to have a correlation with the levels of concentration exhibited by school-aged children diagnosed with attention deficit disorder and hyperactivity. The demographic characteristics of the children with lower concentration levels that the researcher had chosen—gender, family type, income, birth order, and family structure—were shown to have no influence on the children's concentration levels in the first tests. These characteristics included: gender, family type, birth order, and family structure. The validity of the first two hypotheses was shown by applying the aforementioned data and deviations to the hypotheses. That is, after the concentration enhancement activities were put into place, there was a significant improvement in the levels of concentration of the children in the experimental group (H1), and there was a significant difference between the levels of concentration of the children in the experimental group and the control groups of children in the same age range who had been diagnosed with attention deficit and hyperactivity (H2) in the experimental group of children (H2). However, because of the small size of the sample, it was not possible to make any conclusive conclusions on H3 from the study.

Conclusion

The findings of the study provided some hints as to the possible advantages that may be gained by giving children and teenagers with treatment to increase their focus while they were in school. In such situation, it is possible that they will be required to read it while they are still enrolled in school.

1. Brown RT, Freeman WS, Perrin JM, Stein MT, Amler RW, Feldman HM, et al. Prevalence and assessment of Attention-Deficit/Hyperactivity Disorder in primary care settings. *Pediatrics*. 2001;107:43–54. [PubMed] [Google Scholar]
2. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 4th ed. tr. Washington, DC: American Psychiatric Association; 2000. [Google Scholar]
3. Barkley RA. *Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment*. 3rd. New York: Guilford; 2006. [Google Scholar]

4. American Academy of Pediatrics. Clinical practice guideline: Treatment of the school-aged child with attention -deficit/hyperactivity disorder. *Pediatrics*. 2001;180:1033–44. [PubMed] [Google Scholar]
5. Power TJ, Karustis JL, Habboushe D. Homework success for children with ADHD: A family-school intervention program. New York: Guilford; 2001. [Google Scholar]
6. Pelham WE, Fabiano GA. Evidence-based psychosocial treatments for attention deficit/hyperactivity disorder. *J Clin Child Adolesc Psychol*. 2008;37:184–214. [PubMed] [Google Scholar]
7. Pfiffner LJ, Barkley RA, DuPaul GJ. Treatment of ADHD in school settings. In: Barkley RA, editor. *Attention-deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment*. 3rd. New York: Guilford; 2006. [Google Scholar]
8. Pfiffner LJ, Rosen LA, O'Leary SG. The efficacy of an all-positive approach to classroom management. *J ApplBehav Anal*. 1985;18:257–61. [PMC free article] [PubMed] [Google Scholar]
9. Rapport MD, Murphy A, Bailey JS. Ritalin and response cost in the control of hyperactive children. A within subject comparison. *J ApplBehav Anal*. 1982;15:205–16. [PMC free article] [PubMed] [Google Scholar]
10. Power TJ, Hess L, Bennett D. The acceptability of interventions for ADHD among elementary and middle school teachers. *J Dev BehavPediatr*. 1995;16:238–43. [PubMed] [Google Scholar]
11. DuPaul GJ, Stoner G. *ADHD in the schools: Assessment and intervention strategies*. 2nd. New York: Guilford Press; 2003. [Google Scholar]
12. Pastor PN, Reuben CA. National Center for Health Statistics: Vital Health Statistics (DHHS Publication No PHS 2002-1534) Hyattsville, MD: Department of Health and Human Services; Attention deficit disorder and learning disability: United States 1997-1998. [Google Scholar]
13. Shapiro ES. *Academic skills problems workbook*. revised. New York: Guilford; 2004. [Google Scholar]
14. Zentall SS. Research on the educational implications of attention deficit hyperactivity disorder. *Except Child*. 1993;60:143–53. [Google Scholar]
15. DuPaul GJ, Ervin RA, Hook CL, McGoey KE. Peer Tutoring for children with attention deficit hyperactivity disorder: Effects on classroom behavior and academic performance. *J ApplBehav Anal*. 1998;31:579–92. [PMC free article] [PubMed] [Google Scholar]
16. Greenwood CR, Seals K, Kamps D. Peer teaching interventions for multiple levels of support. In: Shinn MR, Walker HM, Stoner G, editors. *Interventions for achievement and behavior problems in a three-tiered model including RTI*. Bethesda, MD: National Association of School Psychologists; 2010. pp. 633–675. [Google Scholar]