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A quasi-experimental study to assess the efficacy of concentration-improving activities in schoolchildren with attention deficit hyperactivity disorder.

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Introduction

The youth population of a nation represents that nation's most valuable resource. Only when children are well-adjusted in all aspects can harmony, stability, peace, and happiness be achieved in every family and society, as well as in a great nation. This is because children are the future. It is the fundamental responsibility of families as well as schools to educate children so that they can grow up to be adults who are creative, responsible, and healthy. It is possible that a child's struggles with inattentiveness and hyperactivity will prevent them from reaching their full potential academically. According to the Centers for Disease Control and Prevention (CDC), attention deficit hyperactivity disorder (ADHD) affects 4.5 million children and adolescents between the ages of 3 and 17. (CDC).

The investigator, working under the assumption that poor concentration is relatively common among children of school age and that interventions to improve concentration are easily accessible, made the decision to carry out a study to determine whether or not concentration-improving activities are effective in improving concentration in a sample of children who were diagnosed with attention deficit hyperactivity disorder (ADHD).

The Components and Procedures

The research was carried out in a manner that was only partially experimental, and it included a total of 100 kids split evenly between an experimental group and a control group of the same size. We used purposeful sampling in order to recruit participants from the two primary schools that are run by the government. The input, process, and output components of Ludwig von Bertalanffy's General System Theory were utilised in the conceptualization of the design.

The use of demographic characteristics was necessary in order to collect the data. A modified version of the NICHQ Vanderbilt's Assessment Scale is able to detect attention deficit and hyperactivity disorders in children. These disorders are common in children. A condition known as attention deficit hyperactivity disorder (ADHD) or hyperactivity disorder (HAD) is characterised by a child's diminished capacity to concentrate on a particular activity.

Random assignments were made to place fifty young people in the experimental group and another fifty in the control group according to the research design of the study, which was quasi-experimental. The subjects for this study came from two different elementary schools and were selected using the purposive sampling method. The General System Theory by Ludwig Von Bertalanffy was utilised for the purpose of conceptualising the design of the product. The information was gathered through the use of demographic variables as the means of investigation. A modified version of the Vanderbilt Assessment Scale (b) was used to screen children for attention deficit hyperactivity disorder (ADHD) and hyperactivity.Before and after administering Bhatia's Battery of Performance Tests of Intelligence to evaluate the level of concentration possessed by children diagnosed with attention deficit disorder or hyperactivity disorder The investigator used a modified version of the NICHQ Vanderbilt Assessment Scale in order to determine whether or not children between the ages of 6 and 8 suffer from attention deficit and hyperactivity. The researcher received a total of 100 samples from the two schools, of which 50 were utilised in the experiment and the remaining 50 were utilised as a control group. A preliminary examination of the concentration levels in both groups was carried out with the assistance of the BBPTI scale. The experimental group was given the opportunity to participate in activities such as letter cancellation, colour cancellation, beading, storytelling, and puzzle solving for a total of forty minutes over the course of two consecutive days. Post-testing was conducted on both groups at the end of the 30-day period, using the same scale.

Results

According to the findings of the study, the pre-test mean concentration score for the experimental group was 6.98, while the pre-test mean concentration score for the control group was 4.5.98. This indicates that both groups had approximately the same level of concentration prior to the implementation of concentration enhancement activities. The post-test mean concentration score for the experimental group came in at 10.9 / 1.33, while the score for the control group was 4.7 / 0.44. Before and after the experiment, the levels of concentration in both the experimental group and the control group were compared and contrasted. It was discovered that the value of the t test for the experimental group was 32.36 df (49), whereas the value of the t test for the control group was 1.88 df (49). It was determined that there was a statistically significant gap in the post-test mean concentration scores between the experimental group and the control group. It was determined that "T" (48.22) df (99), which is the "t" value, is significantly less than 0.01 ($p = 0.001$). The chi-square test was used to examine gender, type

of family, family income, birth order, and the structure of the family. All of these factors were found to have negligible effects on pre-test concentration levels.

Discussion

The results of the research showed that both the experimental group and the control group contained people who suffered from attention deficit hyperactivity disorder (ADHD). A screening test based on a modified version of the NICHQ Vanderbilt's Assessment Scale was given to children between the ages of 6 and 8 at two different government primary schools that were chosen at random. Between the two schools, there were a combined total of 118 students between the ages of 6 and 8. Thirty children diagnosed with attention deficit disorder or hyperactivity disorder were chosen to participate in the experiment from the first school. Thirty students from the second school participated in the screening process and were placed in the study's control group from that institution. A number of children diagnosed with attention deficit hyperactivity disorder who were of school age and had been randomly selected were split into two groups: the experimental group and the control group. According to the findings of the study, the pre-test mean concentration score for the experimental group was 6.98, while the pre-test mean concentration score for the control group was 4.5.98. This indicates that both groups had approximately the same level of concentration prior to the implementation of concentration enhancement activities.

Only members of the experimental group participated in activities designed to improve their ability to concentrate; members of the control group did not participate in any such activities. A post-test using the same Bhatia's Battery of Performance to compare the levels of concentration exhibited by both of the study groups After administering the Concentration Enhancement Activities to the experimental group only, a test of the participants' intelligence was carried out while the control group received no treatment of any kind. The post-test mean concentration score for the experimental group came in at 10.9 / 1.33, while the score for the control group was 4.7 / 0.44. Before and after the experiment, the levels of concentration in both the experimental group and the control group were compared and contrasted.

The purpose of this study is to evaluate the efficacy of the Concentration Enhancement Activities by contrasting the pre-and post-test concentration levels of the experimental group with those of the control group. The concentration levels of school-aged children were measured both before and after the test, and then compared to their sequential mean values and subjected to a test of significance in light of the investigator's earlier goals. It was discovered that the value of the t test for the experimental group was 32.36 df (49), whereas the value

of the t test for the control group was 1.88 df (49). It was determined that there was a statistically significant gap in the post-test mean concentration scores between the experimental group and the control group. It was determined that "T" (48.22) df (99), which is the "t" value, is significantly less than 0.01 (p = 0.001). The chi-square test was used to investigate whether or not there was a correlation between demographic factors such as gender, type of family, family income, birth order, and family structure and a subject's pre-test level of concentration. The results of the test indicated that there was no significant correlation between these factors. It was found that there was no significant correlation between the degree of concentration of children with lower concentrations and their gender, type of family, family income, birth order, or family structure demographic characteristics. Through analysis of the similarities and differences between the sets of data, the first two hypotheses were shown to be correct. Selected children of school age with attention deficit and hyperactivity who participated in concentration-enhancing activities (H1) showed a significant improvement in their level of concentration after the implementation of these activities (H2). Due to the limited number of participants, it was not possible to evaluate the significance of research hypothesis H3 in this study.

Conclusion

According to the findings of the study, providing children of school age with concentration enhancement therapy was an extremely effective way to improve the children's ability to focus, which in turn could lead to improved academic outcomes. As a consequence of this, it might be considered a prerequisite throughout the entirety of their academic career.

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