Effect of aqua therapy exercises on behavior: Hyperactivity & impulsivity among person with ADHD

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Abstract
Purpose of the study was to facilitate the Effect of aqua therapy exercises on Behavior - Hyperactivity & Impulsivity among person with ADHD, for this study thirty (N=30) male subjects with special needs were randomly selected from Deepam and AGAPAE special school in Chennai with 18-25 years of age. They were randomly divided into two equal groups of fifteen (n=15) subjects each. Those two groups have named as experimental and control group. Experimental group underwent aqua therapy exercises for the period of twelve weeks and for the control group no training was given. Behavior - Hyperactivity & Impulsivity was selected as dependent variable and independent variable was aqua therapy exercises. The data was collected before and after the experimental treatment period. Analysis of Covariance (ANCOVA) test was used in this study as statistical technique. It was concluded that Behavior - Hyperactivity & Impulsivity was significantly altered to PERSON WITH ADHD due to the influence of twelve weeks practices of aqua therapy exercises to comparing the control group.

Keywords: Aqua therapy, hyperactivity, impulsivity, ADHD

Introduction
For children with hyperactivity, physical activities are not the only aspect. Their minds down. To help a child learn to manage or reduce hyperactivity includes strategies to help lower physical activity levels and to calm thoughts. Because of their behavior adaptations are needed in physical education in order to ensure enjoyment and success. Creative adaptations can alter recreation activities and programs, thus meet the unique needs and provide fun and healthy exercise for all participants. Developing a new game or modify an already existing game to accommodate children with ADHD, it was important to apply a few basic principles. Apart from creativity of a game or modification of a game, if the activity did not child as a structured form of Adapted games in water considered as a support to reduce the symptoms of ADHD. Adapted water games have no definite rules as they are self-created by the individual and provide psychological development. It could be purely recreational as well as precious tools for learning social relations. The purpose of study was to find out the effect of aqua therapy exercises on Behavior - Hyperactivity & Impulsivity among person with ADHD.

Methodology
For this study thirty (N=30) male subjects (18-25 years of age) with special needs were randomly selected from Deepam and AGAPAE special school in Chennai and their Age ranged between male. They were randomly divided in to two equal groups of fifteen (n=15) subjects each. Those two groups have named as experimental and control group. Experimental group underwent aqua therapy exercises for the period of twelve weeks and for the control group no training was given. Behavior - Hyperactivity & Impulsivity was selected as dependent variable and independent variable was aqua therapy exercises. The data was collected before and after the experimental treatment period. Analysis of Covariance (ANCOVA) test was used in this study as statistical technique.

Result
The following table illustrated the statistical results of the effects of aqua therapy exercises on Behavior - Hyperactivity & Impulsivity of person with ADHD.
Taking into consideration of the pretest mans and post test means were determined and analysis of covariance was done and the obtained post test F valve 105.41 was greater than the required value of 4.21 and hence it was accepted that the aqua therapy exercises significantly altered the Behavior - Hyperactivity & Impulsivity among person with ADHD at 0.05 level.

**Discussion on the Findings of Behavior - Hyperactivity & Impulsivity**

The result revealed that the Behavior - Hyperactivity & Impulsivity of experimental group (aqua therapy exercises) was significantly decreased than the control group and it is due to the effects of adapted physical activity.

**Conclusions**

It was concluded that person with ADHD Behavior - Hyperactivity & Impulsivity was significantly altered due to the influence of twelve weeks’ practices of aqua therapy exercises when comparing to the control group.

**Reference**


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**Table 1: Computation of Analysis of Covariance of Behavior - Hyperactivity & Impulsivity**

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<th>Test</th>
<th>Con. Group</th>
<th>Exp. Group</th>
<th>SV</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
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<td>Pre test</td>
<td>15.13</td>
<td>15.53</td>
<td>between</td>
<td>1.20</td>
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<td>1.200</td>
<td>1.07</td>
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<td></td>
<td></td>
<td></td>
<td>within</td>
<td>31.47</td>
<td>28</td>
<td>1.12</td>
<td></td>
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<tr>
<td>Post test</td>
<td>15.33</td>
<td>11.07</td>
<td>between</td>
<td>136.53</td>
<td>1</td>
<td>136.53</td>
<td>105.41*</td>
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<tr>
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<td></td>
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<td>within</td>
<td>36.27</td>
<td>28</td>
<td>1.30</td>
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<tr>
<td>Adjusted</td>
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<td>10.97</td>
<td>between</td>
<td>143.37</td>
<td>1</td>
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<tr>
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<td></td>
<td></td>
<td>within</td>
<td>29.31</td>
<td>27</td>
<td>1.09</td>
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<tr>
<td>Mean gain</td>
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<td>4.47</td>
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*Significant Table F-ratio at 0.05 level of confidence for 2 and 28 (df) =4.21.