A Device that Regulates Auditory Hypersensitivity for Autistic Children Using Specialized Sounds

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This study aimed to examine the effectiveness of the APS device when treating auditory hypersensitive autistic children aged 3 – 8 years old. The study's methodology consisted of four phases. First, children's reaction to certain triggering sounds were noted. Then, 4 different Pink noise and sound therapy frequencies were chosen to be tested over the course of 4 weeks. Thirdly, the device was designed to enhance and improve the condition of these children by using our own treatment method accompanied with pulse sensors. This was applied on a sample of 92 autistic children, who were divided into 4 groups – each group contains 23 children. Later, and to ensure the criterion validity of our device, 5 interviews with different children's teachers were conducted to insure the effectiveness of APS. It was noticed by all supervisors that our APS device's effectiveness was apparent on all children, with a 100% coefficient correlation. Indeed, two comprehensive case studies were done to follow up with 2 different autistic children, who were treated by APS. Both of the case study participants showed signs of the child's signs of gradual improvement. As with our device, an average of 1.87665 min of flapping time was decreased as a sign of the children's improvement, especially in group 4 – with a noticeable improvement of 89% in responsiveness. As a conclusion, the APS device was a high effective method to reduce the severity of the auditory hypersensitivity in autistic children.

Awards Won:
Third Award of $1,000