

ABSTRACT

Autism disorder is one of the complex disorders with multiple manifestations remains difficult for the researchers to diagnose and treat. In India, most people have not been diagnosed, and the self-screening test for the autistic children is less compared to other developed countries. For treating the autism disorder, researchers use different teaching methods for improving behaviour, social interaction, and communicative skills. This study paves the way to evaluate autistic children with various teaching methodologies on social functioning using Gilliam Autism Rating Scale (GARS II) assisted-assessment questionnaire. In special schools, the children's are trained with horseback, yoga therapy, traditional blackboard teaching, and clue cards. The resultant of designed study revealed that raw and standard score of stereotyped behaviour were significantly ($p < 0.05$) low in Sparks special school Madurai (S-MDU) when compared with other two Srishti special school Chennai (S-CHN) and Deepam special Chennai (D-CHN). Similarly raw and a standard score of communication and socially interaction subscore were significantly ($p < 0.05$) low in clue card adopted a school to D-CHN when compared with the other two to S-MDU and S-CHN schools. The present study aimed to investigate the variation in the physiological parameters between autism and controlled children. Photoplethysmograph (PPG) and the Galvanic skin response (GSR) signals were recorded during mental task through clue cards with visuals like alphabets, numbers, fruits, colours and animals. Physiological signals processed, and dicrotic notch, Heart rate and Galvanic skin response feature extracted from the acquired signal. The nonparametric Mann-Whitney-U tests performed. The heart rate, dicrotic notch, and Galvanic skin response were significantly ($p < 0.05$) high for the autism group when compared to control children. The current study result implies that Photoplethysmograph and Galvanic skin response signals recorded for the autistic children are high. To provide better learning experience using assisted technology to children with autism and improve the effectiveness of the teaching-learning process. For autistic children, the computer webcam based assisted technology will enhance their social interaction and the mental task given through power point presentation.