Investigating and Statistical Analysis of Autism Spectrum Disorders: A Survey

S. Priyadharshini  
Research Scholar,  
Department of Computer Science  
Bishop Heber College, Trichy, Tamil Nadu, India

K. Sivaranjani  
Associate Assistant Prof.  
Department of Information Technology,  
Bishop Heber College, Trichy, Tamil Nadu, India

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Abstract-Autism Spectrum Disorder (ASD) is the third most usually found developing disorder and occurs across cultures and socio-economic strata. Autism Spectrum Disorders profoundly affects an individual’s capacities for learning language, social interaction and imaginative faculties. It is well documented that the majority of persons with autism spectrum disorder do not receive a basic education. The biggest problem of autistic children is they do not aggressively search for information or strengthening from the social environment to the same extent as others. There are many tests focused attention on autistic children and discovery difference in the responses of children with and without autism spectrum disorder in this research makes it an ideal test case for a computational model of autism. It aims to analyze the autism spectrum disorder affected child and identify the activities to be carried out for those children were mentioned through this work. There is an insistent need to create and empower a unit of explained, trained employees to address the instructive needs of persons with the implementation of Expectation-Maximization (EM) algorithm and Hidden Markov Model (HMM) disability particularly complex, little unwritten ones like Autism spectrum disorder were analyzed better and the performance of the proposed system provides more efficiency.

Keywords: Autism Spectrum Disorder, Social Interaction, Strengthening Knowledge, Computational Model for Autism.

I. INTRODUCTION

Autism spectrum disorder is a neuro developmental disorder involving damages in social interaction and announcement, and the presence of a restricted range of interests and/or repetitive performances. An autistic child may prefer to spend time alone rather than participate in supportive games and prefer to play alone rather than interact with others. The expressive language and receptive language skills, or understanding are always impaired in children with autism spectrum and these deficits vary from mild to severe. Non-verbal statement is also abnormal in children with autism. This includes the use of gestures, body posture, eye gaze, and facial appearance. Their play is usually restricted to repetition and perseveration. Stereotypes like hand flapping may also control their play, further restricting their range of activities. The child may sing or repeat advertisements or songs endlessly. Eating may be exaggerated by a limited list of food preferences. A few children with autism spectrum disorder may have exceptional artistic, scientific, or memory skills despite significant deficits in other areas. Many children with autism spectrum disorder are oversensitive to particular sensory stimuli such as light, sound, touch, and smell. Patients with autism spectrum disorder may show Saturnine impairments affecting their perception, sensory functioning, or consideration/activity level. It outlines some interventions and practices that can help to bridge the gap and makes a case for teacher training and orientation that will enable teachers to view ‘inclusion’ and working with children with disabilities not as a ‘problem’ but rather an intrinsic part of their professional practice and value systems.

II. LITERATURE SURVEY

[1] "Costs of Autism Spectrum Disorders in the United Kingdom and the United States" provide more complete estimates of costs associated with ASDs, it offers estimates for 2 countries, and separate persons with and without intellectual disability (ID), an important dissimilarity given that cognitive impairments, separate from deficiencies associated with ASDs, may meaningfully influence costs. Individuals with ASDs can differ greatly in their clinical and functional performance, resulting in potentially substantial alterations in costs of treatment, care, and support. Costs also may vary by age. It illustrious age groups that matched organizational distinctions and data sets in each country. For the United Kingdom, distinguished toddlers (0-1 year of age), preschool children (2-3 years of age), prime school children (4-11 years of age), subordinate school children (12-17 years of age), and adults age), and adults (≥18 years of age).6 For the United States, it distinguished toddler children (0-5 years of age), school-age children (6-17 years of age), and groupings (≥18 years of age).

[2] "A Comparison of Health Care Utilization and Costs of Children With and Without Autism Spectrum Disorders in A Large Group Model Health Plan" The purpose for this study was to relate health care utilization and costs of children with and without autism spectrum disorders in the same health plan. Costs, which include facility and package overhead, were generated according to departments, medical interiors, and patients using standard accounting methods and program-specific relative value units for each service. To evaluate the cost-effectiveness of these new treatments, there is a need for baseline data on current costs of medical facilities for this population, data which are presently lacking.
Children with autism spectrum disorders (ASDs) often have co-occurring circumstances, but little is known on the effect of those conditions on the medicinal care cost. Medical expenditures attributable to ASDs among Medicaid-enrolled children were intended, and the effects of 3 commonly co-occurring conditions—intellectual disability (ID), attention deficit/hyperactivity disorder (ADHD), and epilepsy—on those expenditures were investigated. Medicaid-enrolled children with ASD incurred higher medical costs than did Medicaid-enrolled children without ASD. In particular, children with ID had much higher costs than did other youngsters with ASD.

[4] “Autism Spectrum Disorder and Co-occurring Developmental, Psychiatric, and Medical Conditions among Children in Multiple Populations of the United States” This study examined co-occurring non-ASD diagnoses and symptoms in a population-based cohort of 8 year olds recognized with ASD. Data on 2,568 children meeting investigation case definition for ASD were collected by a multi-site investigation program. Information was systematically inattentive and reviewed from existing health and education source records and methodically entered into a summary record in a secure database. Many of their viewed archives had variability in quality of clinical evaluations and experiences or experience of the clinicians or school examiners. Thus, some level of misclassification (in both directions) or diagnostic replace mental so possible for ASD classification and co-occurring illnesses.

[5] "Brief Report: Effect of a Focused Imitation Intervention on Social Functioning in Children with Autism" Intervention is an early skill thought to play a role in social growth, leading some to suggest that teaching imitation to children with autism spectrum disorder should lead to developments in social operative. This training used a randomized unrushed trial to appraise the effect of a focused imitation interference on initiation of joint attention and social-emotional functioning in 27 young children with autism. Though gains in social operational were associated with treatment, an arbitration analysis did not support simulated as the mechanism of action. These findings suggest the snooping improves social operational in children with ASD.

III. RESULTS AND DISCUSSION
In each set of studies, high rates derive from reviews where intensive population-based transmission techniques were employed whereas lower rates were obtained from trainings relying on managerial methods for case finding. Since no passage of time was involved, the greatness of these gradients in rates can consequently be attributed to differences in case identification approaches across surveys, and the repetition of the pattern in two republics provides even more confidence in this clarification.

Table 1. Comparison of different ASD Approaches

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<thead>
<tr>
<th>No</th>
<th>Author Name</th>
<th>Title</th>
<th>Solution</th>
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<tbody>
<tr>
<td>1</td>
<td>Ariane V. S. Buescher, Zuleyha Cidav, Martin Knapp, David S. Mandel</td>
<td>Costs of Autism Spectrum Disorders in the United Kingdom and the United States</td>
<td>There is clearly a need for a comprehensive picture of the total economic and societal costs of ASDs in both countries (and indeed elsewhere).</td>
</tr>
<tr>
<td>2</td>
<td>Brooke Ingersoll</td>
<td>Brief Report: Effect of a Focused Imitation Intervention on Social Functioning in Children with Autism</td>
<td>In sum, outcomes suggest that a low-intensity, absorbed intervention targeting imitation can significantly progress autism-specific deficits in social functioning that sustain two to three months after package completion.</td>
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<tr>
<td>3</td>
<td>Georgina Peacock, MD, MPH, Djesika Amendah, Lijing Ouyang, Scott D. Grosse</td>
<td>Autism Spectrum Disorders and Health Care Expenditures: The Effects of Co-Occurring Conditions</td>
<td>Early identification of co-occurring circumstances is probable to lead to better services and earlier interventions that would be cooperative for children with an ASD.</td>
</tr>
<tr>
<td>4</td>
<td>Lisa A. Croen, Daniel V. Najar, G. Thomas Ray, Linda Loitspeich, Pilar Bernal</td>
<td>A Comparison of Health Care Utilization and Costs of Children With and Without Autism Spectrum Disorders in a Large Group-Model Health Plan</td>
<td>The exploitation and costs of health care are meaningfully higher for children with ASDs compared with children without ASDs, underscoring the need to find more suitable action options including biomedical methods that target the core ASD symptoms.</td>
</tr>
<tr>
<td>5</td>
<td>Levy SE, Giarelli E, Lee LC</td>
<td>Autism Spectrum Disorder and Co-occurring Developmental, Psychiatric, and Medical Conditions Among Children in Multiple Populations of the United States</td>
<td>In most occurrences, by 8 years of age a diagnosis of ASD should be stable sufficient with adequate material to make a judgment.</td>
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IV. CONCLUSION
Programs to elicit initial statement behaviors and first arguments range from highly structured behaviorist to open-ended, child-directed approaches, with a range of realistic approaches. In addition, the majority of studies reviewed were small scale and qualitative, limiting any simplifications. In most cases, academic supports were provided, although addressing non-academic issues was the authoritative, and residual non-academic issues often condensed academic
support ineffective. Moreover, the diverse features of students with ASD and their idiosyncratic responses to supports established that supports need to be personalized, universal, and recurrently monitored to be operative. Research is also needed on the excellence and adequacy of services provided to students with ASD. Studies with an investigational design may be particularly enlightening as they may allow the effectiveness of supports and services to be more accurately measured. Analysis from the above study it is the communication between social environment and children with autism spectrum disorder is more complex to understand. Because of that the environment know about their activities, expressions, etc. The proposed work of the above survey is to analyze the behavior of the autism spectrum disorder people and the children's by their activities. The videos are through the input is given as a video and ASD activities are analyzed by the video frames. The EM algorithm and HMM analyses the behaviors of those children and helps the teacher and trainer to give the training for ASD affected children through image mining.

REFERENCES