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THERAPIES FOR CHILDREN WITH AUTISUM SPECTRUM DISORDER

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ABSTRACT

Objective: The aim of this cross sectional study participating in health care system, partient improvement and introducing different therapies in disease condition. **Material:** This study was conducted to social changes with the patient ofASD. The total responses were received in ABT.

KEYPOINT: Autisum spectrum disorder(ASD), Applied behavior analysis (ABA).

INTRODUCTION

A neurodevelopmental illness known as autism spectrum disorder (ASD) is characterized by ongoing difficulties in social interaction and communication as well as constrained and repetitive behaviors. Its severity and presentation can vary greatly, and it is often diagnosed in early childhood. ASD is a chronic illness that has diverse effects on every person, necessitating tailored support and interventions. There are numerous methods used in the world of ASD therapy that help improve children's life. The widely used therapy known as "Applied Behavior Analysis" (ABA) concentrates on behavior modification and skill building. Speech therapy focuses on

communication issues, assisting kids in developing their language and social abilities. Daily living skills and sensory integration are improved through occupational therapy. The goal of social skills training is to enhance interpersonal communication and create lasting bonds. When adapted to a kid's specific requirements, these therapies have the power to significantly contribute to a child with ASD thriving and realizing their full potential. Explore each therapy's specific advantages and methods by going further into it.

What is ASD?

ASD is still being studied. It is thought to be a result of a complex interaction between genetic, environmental, and neurological variables. ASD is characterized by a wide range of signs and symptoms, but they frequently include issues with communication and social interaction, repetitive activities, and narrow interests mutations, prenatal and postnatal causes, exposure to specific environmental chemicals, and immune system malfunction are some of the etiological factors linked to ASD. It's significant to highlight that there is still much to learn about ASD, and research in this field is ongoing.Physiological alterations may be linked to autism spectrum disorder (ASD). According to research, people with ASD may have altered brain physiology, including anomalies in certain regions of the brain associated with social interaction and sensory processing. Additionally, changes in neurotransmitter systems, such those involving serotonin and dopamine, may have an impact on mood and behavior. It's crucial to remember that more research is still being done on the precise physiological changes and how they specifically affect ASD. Certainly! Researchers have noted variations in brain connection and activity when it comes to neurological abnormalities in autism spectrum disorder (ASD). Different brain regions involved in social interaction, communication, and sensory processing may be impacted by these alterations. Studies have revealed, for instance, changed patterns of brain activity in the prefrontal cortex, amygdala, and mirror neuron system. The distinctive traits and difficulties connected with ASD are a result of these brain variations. It's crucial to remember that research is still ongoing to determine the precise neurological causes driving ASD.

Method

Activity: in this we decided some applied behavior therapy that’s include

1. Speech therapy: Perception exercise for example to differentiate between individual sounds and syllables. exercise to produce certain sounds and improve the fluency of speech. also improve breathing swallowing and the voice.

2. Behaviour modification: Learning techniques as biofeedback and positive or negative reinforcement.

3. Skill development: It include active learning oral expression reading comprehension written expression ICT literacy active listening.

4. Social Interaction: The aim is to cultive a sence of belonging built relationship , and gain social support within our social environment.

5. Daily Living Skills: A sunset of adaptive behavior which include communication social and relationship skills that are likely to be harder for some one on the spectrum to learn.

Participation: The total participations of 43 children (boys 22 and girls 21) with ASD all the subjects are recived from government hospital dharashiv by a child psychiatrist the cross sectional study was approved by government hospital dharashiv parents of the children provided inform consent prior to participation.

Measure

We administered the Autism Treatment Evaluation Checklist (ATEC) to parents/caregivers to monitor the severity of autism symptoms. ATEC is a valid and helpful instrument to evaluate the severity ASD symptoms in children with ASD. The checklist has five subscales, including Speech therapy, Behaviour modification, Skill development, Social interaction, Daily living skills.

Finally, background demographic information of the participants was reviewed by the first author interviewing the families and using their medical profiles and case reports for the current study. This crosssectional study was based on patient case reports and their physical changes the total response received in this research was speech therapy 40%, Behaaviour modification 30%, Skill development 32%, Social interaction 29%, Daily living skills35%, in last six months.

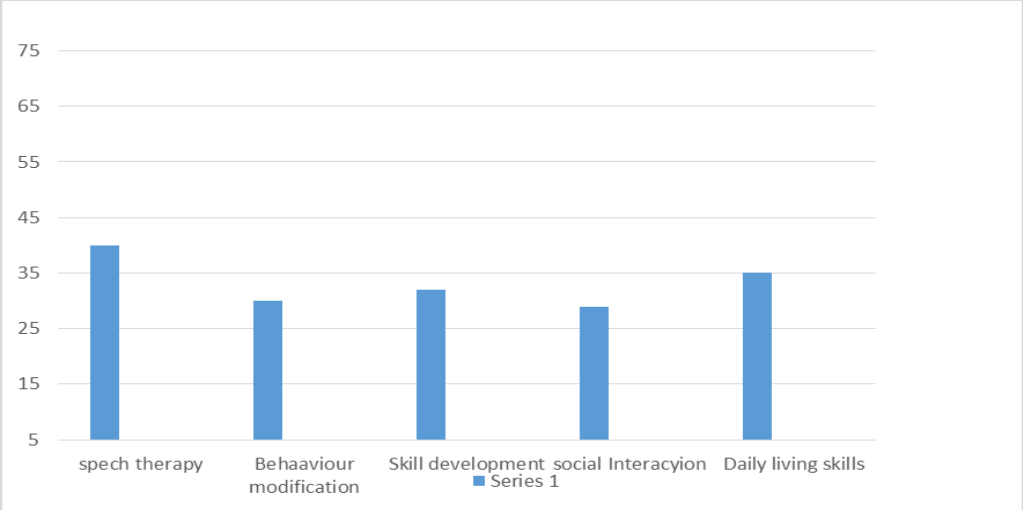

Fig no. 1: Response of Applied Behaviour Analysis.

Data analysis

In this cross sectional study analysis of patient, before and after of therapies the observed difference in ASD after treatment it gives total of 35% in outcome measurement of physical activity score or daily activity measures and child factors were assessed by co relation analysis. The significant level was set at 0.05 to consider an a outcome meaning full. The data were analyzed in statistical manner.

RESULT

The descriptive changed characteristics of children shown in fig.no.1. The childrens with the age of 6 to 15 were assigned to this study. 21% of childrens with genetic disorder families and 20% of children with poor financial background. 19% of childrens with illiterate parents. The total physical therapetical changes is 35% and different therapy effect were on the basis of behavior analysis the total speech therapy response is 40%, behavior modification is 30%, skill development 32%, social interaction 29%, and Daily living skills 35%, this response were received from this therapies.

DISCUSSION

Daily physical and play activities have an important role in the psychosocial development of children. In fact an appropriate activity profile prevents them from isolation in adulthood and significantly influences the wellbeing of children. Nevertheless, there was lack of studies assessing daily activities participation in children with ASD and investigating the impact of individual and environmental factors on their physical activity parameters.

Results from the current study indicates that most of the children with ASD do not have adequate physical activity participation since only few of our children met the minimum physical activity criteria. Several studies have discovered that individuals with disabilities are more likely to be inactive and due to abundance of impediments they are less likely to participate in activities when they are compared with the general population. Their findings show that ASD and the severity of intellectual impairments place the people with disabilities at a higher risk for sedentariness. A number of factors can limit the participation of children with ASD in daily physical activities. Those mainly include lack of positive experiences in exercises, frequent failures, emotional impairments, and low self-esteem.

However, our data showed that such low participation was mostly due to the financial complaints and lack of resources or opportunities as reported by the parents. Moreover, there were other factors (e.g., time constraints, lack of motivation, and fear of injury) which can further limit the participation of autistic children in activities. Interestingly, data from another developing country revealed similar barriers such as financial complaints, lack of knowledge, and perception of the situation in an ASD sample. Although there are differences in measurement of barriers across previous studies, almost similar patterns of barriers including time limits and financial constraints were reported as leading barriers to activity participation in children with disabilities particularly ASD. Indeed this finding is not limited to ASD and previous data from individuals with other disabilities revealed that disabled people face a number of barriers to PA participation even more than healthy population. Expenditures of the child's medical care impose a financial burden on families with an autistic child and therefore they require more financial resources. They also have to limit their productive working times in order to take care of their difficult children, which in turn will further challenge the possibility of secure a financial resource expansion.

One of the important findings of the present study is that children from low-income families show lower level of PA than children from high-income families. Indeed family income is a determinant of health behavior. Children who grow up in a low-income family are more likely to live a sedentary lifestyle and experience more health problems related to physical inactivity compared to children from higher income families. There are a number of physical and social barriers to physical activity for low-income families including low access to parks and recreational services, traffic conditions and air pollution, lack of relevant alternatives of transportation, and lack of enough social support for physical activity. On the other hand,

low-income families are often less able to overcome these barriers. Due to financial constraints, there are fewer alternatives available for low-income people; for example, they are not able to spend on a health club or recreation center membership. It can be expected that the problem is more complicated in families with an ASD child. Thus, the economically disadvantaged ASD families may show a lower preference to participate in physical activities. Furthermore, some parents have increasing concerns about their child's health and possibility of an injury, which can explain their lack of interest toward activity participation of their autistic child.

The household structure has been identified as another independent correlate of activity participation. Single parents experience a number of work-related or housing problems. Furthermore, they report lack of time and financial resources as the main impediments to participation in activities. Our findings provide additional evidence regarding the effect of household structure on the leisure time activity involvement in children with ASD. However, it is not clear if other variables such as presence of a sibling may influence the opportunities to engage in social play and daily social activities inside the family environment.

Expectedly children with ASD showed a remarkably low social but high solitary play activity during a typical day. Indeed this finding may reflect the characteristic of autism itself. A previous research has shown that the characteristics of ASD as social, communicative, and motor impairments increase the likelihood of loneliness and decrease the opportunities for interactions in individuals with ASD. Previous studies suggested that a lower level of social play activities in addition to autistic character difficulties can have serious developmental and social consequences. Examining the apparent role of autism symptom severity, we observed that the children with greater deficits (e.g., in communication) had a lower engagement in social play activities. These results are in line with previous studies which indicated that there is an inverse correlation between severity of communication impairment and the level of life participation in individuals with disabilities. In fact, previous studies indicated that individuals with more severe motor or physical impairments or cognitive disabilities are at a higher risk of being excluded from daily activitie.

Our findings also indicated that there is a significant age and gender difference in level of physical activity and this is in line with studies of ASD and general population. Expectedly we documented the negative effect of age on PA in children with ASD. It can be explained that older children have low opportunities to participate in physical and recreation activities.

Furthermore, age may decrease the children motivation to participate in complex motor or physical activities.

We also indicated that gender (in favor of males) influences the daily physical and play activities of children. Gender differences in ASD characteristics revealed that males with ASD show more stereotypic and repetitive behaviors while there are more communication deficits in female counterparts. In addition, there is more achievements in motor skills and social competence in boys than girls with ASD. One can argue that being a girl is associated with poor outcome in physical activity participation in ASD.

CONCLUSION

In conclusion, only a small part of children with ASD are physically active according to activity guideline. Financial concerns, lack of opportunities, and sociodemographic factors are indicated as major limitations of their physical activities.

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