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The Effect Of Daily Living Skills Training In Children Aged 3 To 5 Years Having Mild Developmental Delay With Mild Autism Spectrum Disorder.

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***Abstract*— Present study aimed to see the Effect of Daily Living Skills training of 3 to 5 year old children having mild developmental delay with mild autism spectrum disorder. The data has been assessed by using DST (Developmental Screening Test), VSMS (Vineland Social Maturity Scale), VABS II (Vineland Adaptive Behavior Scales) and ISAA (Indian Scale for assessment of autism). The study has been examined on 4 children having mild developmental delay with mild autism spectrum disorder. To compute the effectiveness of daily living skills training on toileting, dressing and grooming of all children, paired t test has been used. The findings indicate that there is a significant effect of Daily Living Skills training on children, t (3) = 19.23, p < 0.001.**

***Keywords*— Developmental delay, Autism Spectrum Disorder, Daily living skills.**

I. INTRODUCTION

Self-Care and lifestyle Skills include a number of the foremost important occupations children learn as they grow.

Basic Activities of Daily Living (also referred to as Self Care) skills include upper and lower extremity dressing, toilet hygiene and bowel/bladder management, bathing/showering, personal hygiene/grooming, eating/feeding, functional mobility, and sleep/rest.

Instrumental Activities of Daily Living (IADLs) occupations are more complex than ADL skills and are vital to children and young adults to prepare for independent living. These activities are needed to participate independently in home, school, community, and work environments. IADL skills include meal preparation, community mobility, health maintenance, home management (clothing care, cleaning), shopping, and care of others and pets.

Early intervention can help child's progress

Developmental delay may be caused by a variety of factors, including heredity, problems with pregnancy, and premature birth. The cause isn't always known development into adulthood.

Although autism is typically diagnosed by age three, autistic individuals may exhibit the previously described symptoms as early as 18 months. Most autistic individuals exhibit continuous abnormal development; however, a quarter to a third develops normally and then regresses to autism. Although it is possible for communication deficits and repetitive behaviors to improve as a child ages, most autistic individuals retain the autistic phenotype and receive care in group homes as adults

Autism spectrum disorder

Autism spectrum disorder (ASD) is a neurodevelopmental disorder that can impair your child's ability to communicate and interact with others

Classic ASD usually includes language delay and intellectual disabilities. Symptoms are sometimes obvious early, but might not be noticed until a toddler reaches 2 or 3years aged.

Signs and symptoms of ASD vary, but usually include delayed speech and language skills and difficulty communicating and interacting with others.

Each child will have a unique pattern of behaviour with differing levels of severity.

Some symptoms include:

- failure to respond to their name
- resistance to cuddling or playing with others
- lack of facial expression
- inability to speak or difficulty speaking, carrying on a conversation, or remembering words and sentences
- repetitive movements
- development of specific routines
- coordination problems
- early intervention and education can help your child progress for ASD kids.

Risk Factors of ASD There has been a huge focus on pre- and perinatal events as risk factors for ASD in various studies across the globe. Studies based on concordance rates among monozygotic twins and families suggest a possible role of both genetic and environmental factors in the etiology of ASD [1]. For example, pregnancy- 9 induced central nervous system insults may result in relevant epigenetic changes. Secondly, the neuropathology of ASD remains unclear and the reported brain abnormalities among children with ASD indicate a probable link with disturbances in the in utero period. Thirdly, the proportion of children with a major gene defect is limited to a small proportion of ASD cases. Thus, a multifactorial approach towards ASD risk may serve as a more appropriate perspective in the study of the aetiology of ASD. Various risk factors were studied to elucidate their risk towards ASD aetiology, wherein disruptions and disorders of pregnancy, significantly higher incidence of bleeding during pregnancy [2, 3], breech presentation and low Apgar scores [4], threatened abortion [5], cesarean delivery [5, 6] and gestational age at birth\35 weeks [4] or 3/7 weeks [2] were predominant. Prenatal exposures to thalidomide, rubella, drinking and smoking in early stages of pregnancy were also reported to be associated with an increased risk of ASD [5, 7, 8]. Higher risk for autism has been noted with the presence of one or more unfavorable obstetric events [9, 10]. Both advanced paternal age [11] and advanced maternal age [12] also have been reported to be associated with increased risk of ASD. However, the literature is not always consistent with regards to which specific prenatal and perinatal risk factors are associated with ASD. 10 Out of the various risk factors studied globally, this thesis focuses on relevant ones pertinent to Indian population.

In addition to the above risk factors, the present paper also focuses on the comorbid conditions of ASD. Apart from typical symptoms, children with ASD also show presence of comorbid conditions like Attention deficit/ hyperactivity, eating disorders, anxiety, depression, aggression, self-injury, abnormal sleep patterns etc. [13] which often lead to behavioral problems [14]. We have focused only on factors which are reported to have link with giving training on daily living skill. It is indeed necessary to educate parents about the probable coexistence of these conditions as these may aggravate the ASD challenge. Awareness about these conditions would play a very vital role in choosing early and better intervention for the child

Objective

To find out The Effect of Daily living skills training in children aged 3 to 5 years having mild developmental delay with mild Autism Spectrum Disorder.

II. METHODOLOGY

Sampling

- Sample size- 4 children diagnosed with Mild developmental delay with mild autism.
- Sample location- Nilofer hospital.
- Age range- 3 to 5years.

Inclusion criteria:

- Children who are assessed as mild developmental delay with mild autism and aged between 3-5 years can be male or female.
- Children who are assessed as developmental delay with mild autism based on Standard IQ tests ie: DST/VSMS/ISAA /VABS only included in this study.

Exclusion criteria:

- Children aged above 6 years (intellectual disabilities)
- Children having other than developmental delay along with co -morbid disabilities i.e. ADHD, major physical illness, epilepsy, cerebral palsy motor deficit.

Tools to be used for screening I.Q:

- Development screening test (DST)
- Vineland Social Maturity Scale (VSMS)
- Indian scale for assessment of autism (ISAA),

Tools were selected mainly to assess the Daily living skills:

Vineland Adaptive Behaviour Scales II, (VABS) II

- **Tooth Brushing Techniques:**
- Sing a familiar short /poem /song throughout the process. When the poem/song is over, stop brushing.
- Count to a specified number each time they brush, like 1 to 20 number, once that number is reached, tooth brushing is over.
- Experiment with different ways to complete the actual brushing.
- use a different water temperatures when brushing his/her teeth.
- Allow your child to hold the toothbrush while you gently guide his/her hand.
- **Use a Mirror** - He/ she may allow you to help brush if you stand behind your child while he is looking into the mirror.
- Make tooth brushing part of your child's daily routine.
- **Toilet Training**
- Use words to express the act of using the toilet ("pee," "poop," and "potty").
- Ask child to let you know when a diaper is wet or soiled.
- Identify behaviors ("Are you going poop?") so that child can learn to recognize the urge to pee and poop.
- Get a potty chair child can practice sitting on it.
- Praise all attempts to use the toilet, even if nothing passes.

DRESSING (BUTTONING)

1. Show the child how to carry the frame to the table, grasping it with both hands, one on each side.
2. Place the frame on the table and sit down.
3. Begin with unbuttoning the frame. Let's assume the holes are on the left flap and the buttons are on the right flap. Using your thumb and forefinger.
4. Using your thumb and forefinger, tilt the button into the hole; now push the button all the way through with your index finger.
5. Repeat with the entire buttons top to bottom; then open both flaps to shows.
6. Close the flaps.
7. Now show buttoning: using your left thumb and forefinger, grasp the top fabric at the first hole, bending it slightly back to show the underside of the hole.
8. Using your other thumb and forefinger, push the button into the hole. Pull all the way through from the other side.
9. Repeat with all buttons top to bottom, and then invite the child to try.

III. RESULTS AND DISCUSSION

This chapter presents the results and analysis of data followed by discussion to interpret and describe the significance of our findings. The obtained data is tabulated, analysed statistically with pre and post training evaluations.

The present study was about the effect of daily living skills training in Autism Spectrum Disorder.

To compute the effectiveness of daily living skills training on toileting, dressing and grooming of all children, paired t test was used.

GROUP	NUMBER	MEAN	SD	MEANS DIFFERENCE	t-VALUE
PRE TRANING	4	4.5	0.57	3.75	19.23**
POST TRANING	4	8.25	0.95		

Table 1: Mean scores of 4 subjects on VABS before and after the Daily Living Skillstraining

**p<0.001

As shown in table 1, the pre intervention mean is 4.5 and SD is 0.57 and post intervention mean is 8.25 and SD is 0.95. The t value was found to be 19.23 and is significant at 0.001 level. The results clearly indicate that there is a significant effect of Daily Living Skills training on children, t (3) = 19.23, p <0.001.

Effect of Daily Living Skills-training on individual performance of each child.

The effectiveness of daily living skills training on toileting, dressing and grooming was also analyzed for each subject. Table 2 shows pre and post intervention scores of children on daily living skills sub-domain.

Table 2: Subject wise comparison of Pre and Post intervention 'v' scale scores on VABS.

subject	Pre test	Post test	Gain score

	score	score	
1	5	9	4
2	4	9	5
3	4	7	3
4	5	8	3

All five children's pre intervention scores are ranging from 0 to 5. The subject one scored 5, subject two scored 4, subject three scored 4 and subject four scored 5.

Post intervention scores are ranging from 0 to 09. The subject one scored 9, subject two scored 9, subject three scored 7 and subject four scored 8.

The improvement or gain in daily living skills range from 0 to 03. The gain score of subject one is 4, subject two is 05, subject three is 03, subject four is 03.

IV. DISCUSSION

The current study aimed to examine the effectiveness of daily living skills training on toileting, dressing and grooming of children with ASD. After the application of training program stretched over a 9 month period, significant improvements were observed in daily living skills of children. This study like many other studies has also outlined the potential of daily living skills training programs for children with ASD.

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