

**RANGE AND TYPES OF PROBLEM BEHAVIOURS
OF SCHOOL ENROLLED DEVELOPMENTALLY
DISABLED CHILDREN: A STUDY**

SYNOPSIS

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SYNOPSIS

CHAPTER I INTRODUCTION

Historical perspectives

Common elements of behaviour modification methods

**Types of problem behaviours observed among developmentally disabled children/
youth**

Problem behaviours of developmentally disabled children and related variables

Prevalence of behaviour problems among developmentally disabled children

**Factors associated with behaviour problems of developmentally disabled children/
youth**

Rational of the study

Statement of the problem

Objectives of the study

Hypotheses

CHAPTER II REVIEW OF RELATED LITERATURE

CHAPTER III METHOD AND PROCEDURE

Population

Selection of the samples

Variables

Research tool

Collection of data

Statistical analysis

CHAPTER IV ANALYSIS AND INTERPRETATION OF DATA

CHAPTER V THE FINDINGS AND DISCUSSION

Findings

Discussion

Scope for further research

Recommendations

Conclusion

BIBLIOGRAPHY

CHAPTER-I

INTRODUCTION

HISTORICAL PERSPECTIVES:

Pavlov and his co-workers in Russia at the end of the 20th century first systematically applied conditioning principles for behaviour modification. At about the same time J.B. Watson in USA also applied systematically conditioning principles for behaviour modification. According to them the principles of classical conditioning is the basic model of learning. Pavlov's experiment established comprehensive model of neurophysiology which at the later ages is accepted as a foundation for the understanding of neurotic disturbances. Pavlov noted that when he increased the delay between presentation of a signal and food, use of intensive stimulation, continued alteration of positive and negative stimuli in a conditioning task were found. Finally "he proposed different personality types to account for the individual differences among animals in reaction to conflicting stimuli" (Kanfer, 1972, p5.).

In the early 1940s, Skinner formulated the importance of operant conditioning methods in human behaviour. He provided behaviour modification techniques used in the modern days. Behaviour modification methods applied widely on the basis that most human actions, abnormal or normal are learnt behaviours; and therefore, the learnt behaviours can be altered by applications of learning principles. According to B.F. Skinner, all the behaviours are learnt and, therefore, subject to modification. For behaviour modification appropriate conditions are also essential. To change the problem behaviours of the learner the behaviour modifier has to select problem specific different procedures, environment of learner and the available resources which will support the behaviour modification.

COMMON ELEMENTS OF BEHAVIOUR MODIFICATION METHODS:

Behaviour modification is an educational process. Therefore, behaviour modification is not only in the area of clinical psychology or child psychology, rather the educational psychologist or the teachers can modify the problem behaviours of the children / client (Kanfer, 1972). Change of behaviour may be brought about by using different techniques, viz., manipulation of environment of person, training to the person for elicitation of required responses, by changing motivational condition and by altering

the persons repertoire of verbal controlling responses. The aim of using all these techniques are to facilitate new learning among the children/ client.

Behaviour modification can be done by using any of the four basic learning models- a. The Classical Conditioning Model; b. Operant Conditioning Model; c. The Observational Model; and d. Self-regulation Model. Aversive techniques were also used in behaviour modification. Now a days aversive techniques are not used in behaviour modification or in counselling.

TYPES OF PROBLEM BEHAVIOURS OBSERVED AMONG DEVELOPMENTALLY DISABLED CHILDREN/ YOUTH:

Bijou (1966, 1968) in his study, 'Behaviour Modification in Teaching the Retarded Child', summarized that instead of using the term 'retardation' we can use the term development retardation or developmental disability. This term is used to describe a person with limited behaviour repertoires resulting from his genetic and personal history.

According to Emerson challenging behaviour can be defined as "culturally abnormal behaviour(s) of such intensity, frequency or duration that the physical safety of the persons or others is likely to be placed in serious jeopardy, or behaviour which is likely to seriously limited use or result in the person being denied access to ordinary community facilities'' (Emerson, 2001, p3). Most of the children with intellectual impairment with or without other disabilities display several types of problem behaviours. Behaviour problems are common among children with Cerebral Palsy, Autism, Attention Deficit Hyperactive Disorder (ADHD) and other children with developmental disabilities (Biswas et. al., 2011 & 2012). Biswas et. al., (2011 & 2012) also in their survey study noted that children with cerebral palsy with intellectual impairment possess different types of problem behaviours like self-injurious behaviours, hyperactive behaviours, destructive behaviours, aggressive behaviours, outbursts and temper tantrums, repetitive and anti-social behaviours, profound sleep disturbances which makes them isolated from the family and community as well as they create learning problems and problems related to their rearing practices.

Achenbach and Rescorla, (2001) in their Child Behaviour Checklist (CBCL) 6-18 years studied in-depth about problem behaviours of children and noticed that

developmentally disabled children showed 113 types of problem behaviours. They noted behaviours like nervousness, being impulsive, being fearful, nail biting, irritability, temper tantrum, easily destructed, restless, lying, feels dizzy or lightheaded, lacks energy, slow moving, whining, stubborn, self-consciousness, shy, timid are present in association with other problem behaviours noted in AAMR.

PROBLEM BEHAVIOURS OF DEVELOPMENTALLY DISABLED CHILDREN AND RELATED VARIABLES:

For social and emotional development of a child including a developmentally delayed child a good family relationship among the family members are needed (Shonkoff & Phillips, 2000). Parental separation or death of a family member or un-employment of employed family member may create adverse effects on child and more particularly on developmentally delayed child (Campbell, 2002).

Death of one parent or parental separation also hampered social and emotional development of a child (Carlson & Trapani, 2006; Hilton & Desrochers, 2002).

Poverty is regarded as an important factor in the development of behaviour problems among children without developmental delays (Dodge, Pettit & Bates, 1994; McLeod & Shanahan, 1996; Raadal, Milgrom, Cauce & Mancl, 1994). Biswas, Chatterjee, and Nanda (2011 & 2012) studied the problem behaviours of developmentally disabled children in relation to parents distress and attitude towards disability. They noted that childrens problem behaviours are proportionately related to parental distress and attitude towards disability.

According to the family system theories family climates like family members actions to promote cohesion, express emotions and deal with conflict are closely related with the development of problem behaviours among intellectually challenged children. If the family climate is well regulated, childrens problem behaviours will be low levels.

PREVALENCE OF BEHAVIOUR PROBLEMS AMONG DEVELOPMENTALLY DISABLED CHILDREN:

Emerson and Bromley (1995) studied problem behaviours, in the north-west of England and found that 33 people per one lakh of the general population possess problem behaviours. Emerson, Kiernan, Alborz, Reeves, Mason, Swarbrick, Mason and Hatton

(2001b) studied the prevalence of challenging behaviours of common people and noted that problem behaviours prevalence rate is 45.3 per one lakh population. In London Joyce, Ditchfield and Harris (2001) studied prevalence rate of problem behaviours among intellectually disabled adults and found that per one lakh population 60-70 intellectually disabled adult possess challenging behaviours. In Norway, Holden and Gitlesen (2005) studied challenging behaviours among intellectually disabled and found that 11.1% of Norway people possess challenging behaviours, which are 48.4 people per one lakh population. In the Indian context prevalence rate of problem behaviours among school going children varies from 6.33% to 43.1% (Malhotra, Kohli & Arun, 2002; Gupta, Verma, Singh & Gupta, 2001; Jiloha & Murthy, 1981; Malhotra, Arun & Kohli, 2000).

FACTORS ASSOCIATED WITH BEHAVIOUR PROBLEMS OF DEVELOPMENTALLY DISABLED CHILDREN/ YOUTH:

Problem behaviours of children either for disabled or non-disabled are associated with different factors like the level of developmental disability is closely associated with challenging behaviours (Emerson & Bromley, 1995; Tyrer, McGrother, Thorp, Donaldson, Bhaumik, Watson & Hollin, 2006). Gender is also important factor associated with problem behaviours of intellectually and developmentally disabled children and youth. Tyrer, McGrother, Thorp, Donaldson, Bhaumik, Watson & Hollin (2006) noted that physical aggression are most common among male developmentally disabled but Collacot et. al. (1998) found no gender differences related to self-injurious behaviour.

Some specific gender is associated with some specific problem behaviours. Self-injurious behaviour is always associated with Lesh-Nyhan Syndrome (Anderson & Ernst, 1994).

Some life events are also associated with behaviour problems. Traumatic life events from residence, family members severe physical illness, physical injury and conflicts are some of the factors associated with problem behaviours.

Age is also closely associated as a factor for problem behaviours among developmentally disabled children (Campbell, Shaw & Gilliom, 2000; Hindshaw, 1992).

Schirm, Tobi, Zito and Berg (2001) studied on the effects of psychotropic drugs on managing the problem behaviours of developmentally disable children.

A good number of researchers studied on behaviour problems related to the types and range of disability. Cuskelly and Dadds (1992) studied the behaviour problem of children with down syndrome and their siblings.

RATIONAL OF THE STUDY:

Challenging behaviours or problem behaviours among young children has appear to be increasing (Kaiser et.al., 2002; Webster-Stratton, 2000) and children with developmentally disabled are more likely to demonstrate these problem behaviours than similar age-peers (Mondal & Nanda, 2015).

Developmentally disabled, multiple disabled and multi-sensory impaired children particularly moderate to profound categories are more affected by problem behaviours which prevents delay learning of alternate behaviours. Due to absence of alternative behaviours, perceptual reinforcers become more and more powerful and their high-risk of self-stimulatory behaviours maintained (Lovass, Newsom & Hickman, 1987). As a result they are unable to integrate themselves neither in the family nor in the schools. Generally aggressive behaviours are found among the children due to their painful and frustrating experiences (Baroff, 1999). Developmentally disabled children who have severe or profound disability, they show hyperactive behaviours (Nanda, & Mitra 2006). Barkson and Davenport (1962). Body-rocking is the most common type of self-stimulatory stereotyped behaviour (Schwartz, Gallagher & Berkson, 1986).

Self-injurious behaviour (SIB) is a challenging behaviour problem which affect persons general health and overall quality of life as well as SIB leads to increased risk or institutionalization, social stigmatization and more specially decreased further learning opportunities (Symons, Thompson & Rodriguez, 2004).

American Association of Mental Retardation (AAMR) noted that developmentally disabled children shows 10 different items of destructive behaviours. The emergence and maintenance of destructive behaviours has often been discussed by different researchers but not often successfully accomplished (Gardner et.al., 1996; Luiselli, 1986; Mace & Mauk, 1995; Reese, 1999).

In India particularly in West Bengal in spite of presence of a large number of disabled children almost no study about problem behaviours exist, or if at all, is not available to the present investigator even after a long survey of related research work. Types and ranges of problem behaviours of school enrolled developmentally disabled children are not undertaken in West Bengal as a research topic. Therefore, there is huge gap of knowledge in this area. Considering all these aspects and knowledge gap the present investigator, therefore, formulated her present research problem.

STATEMENT OF THE PROBLEM:

On the basis of research evidences the problem states as- **“RANGE AND TYPES OF PROBLEM BEHAVIOURS OF SCHOOL ENROLLED DEVELOPMENTALLY DISABLED CHILDREN: A STUDY”**

OBJECTIVES OF THE STUDY:

1. To study the types of problem behaviours present among developmentally disabled children.
 - 1.1. To study the problem behaviours of the children with developmental disability on the basis of their gender.
 - 1.2. To study the problem behaviours of the children with developmental disability on the basis of their age.
 - 1.3. To study the problem behaviours of the children with developmental disability on the basis of their educational standard.
 - 1.4. To study the problem behaviours of the children with developmental disability on the basis of their habitat.
 - 1.5. To study the problem behaviours of the children with developmental disability on the basis of their family structure.
 - 1.6. To study the problem behaviours of the children with developmental disability on the basis of their parents' family income.
 - 1.7. To study the problem behaviours of the children with developmental disability on the basis of their parental education.

- 1.8. To study the problem behaviours of the children with developmental disability on the basis of their birth order.
- 1.9. To study the problem behaviours of the children with developmental disability on the basis of their age of onset of disability.
- 1.10. To study the problem behaviours of the children with developmental disability on the basis of their availability of early intervention facilities.
- 1.11. To study the problem behaviours of the children with developmental disability on the basis of their availability of parental counselling.
- 1.12. To study the problem behaviours of the children with developmental disability on the basis of availability of training on parental involvement.
- 1.13. To study the problem behaviours of the children with developmental disability on the basis of their availability of parental support.
- 1.14. To study the problem behaviours of the children with developmental disability on the basis of their availability of community support.
2. To study the problem behaviours of the children with developmental disability on the basis of their range of disability.
3. To study the types of problem behaviours present among developmentally disabled children on the basis of their types of developmental disability.

HYPOTHESES:

H₀1. There is no significant median difference between developmentally disabled boys and girls on the basis of their problem behaviours.

H₀2. There is no significant median difference between developmentally disabled different age groups children on the basis of their problem behaviours.

H₀3. There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their educational standard.

H₀4. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their habitat.

H₀5. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their family structure.

H₀6. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their family incomes.

H₀7. There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their parental education.

H₀8. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their birth order.

H₀9. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their age of onset of disability.

H₀10. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of early intervention facilities.

H₀11. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of parental counselling.

H₀12. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of training on parental involvement.

H₀13. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of parental support.

H₀14. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of community support.

H₀15. There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their range of disability.

H₀16. There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their types of disability.

CHAPTER- II

REVIEW OF RELATED LITERATURE

The examined literature related to this study is divided into two categories: "studies done out of India" and "studies conducted in India". The summary of review related literature is given below in table:

REVIEW OF WESTERN RESEARCH LITERATURES				
Name of the author(s)	Title	Name of the journal	Aim of the study	Major findings
Barron, J.L., and Sandman, C.A. (1984)	Self-injurious behaviour and stereotype in an institutionalized mentally retarded population.	Applied Research in Mental Retardation	To investigate the relationship between demographic variables and problem behaviours of center-based intellectually disabled children.	Severity and frequency of problem behaviours are closely associated with sensory disability and gender of the subjects. They also found that no significant relationship noted between the demographic variables and the problem behaviours of the children.
Kiernan, C., and Moss, S. (1990)	Behaviour disorders and other characteristics of the population of a mental handicap hospital.	<i>Mental Handicap Research</i>	To study the behaviour disorder and other characteristics of the population of a mental handicap hospital	Researchers discovered that among these 981 individuals, 189 (15.2%) exhibited severe behaviour disorders, while 275 (28%) displayed moderate behaviour disorders. Interestingly, there was no significant difference in the prevalence of behaviour disorders between males and females. Notably, those in the youngest age group (10 to 19 years) had a higher percentage of severe behaviour problems. Additionally, individuals with single sensory impairments tended to have fewer issues with behaviour problems.
Bouras, N., & Drummond, C. (1992).	Behaviour and psychiatric disorders of people with mental handicaps living in the community.	<i>Journal of Intellectual Disability Research</i>	The primary objective of the research was to investigate the behaviour and psychiatric disorders among these individuals.	The study's findings revealed that among those with psychiatric disorders, schizophrenic/paranoid disorders were the most common, affecting 39 individuals (12.3%). When examining behavioural issues, it was observed that a total of 167 individuals, which accounts for 52.5% of the sample, exhibited problem behaviours.

				Among these behavioural problems, aggression was the most prevalent, with 106 individuals (33.3%) displaying aggressive behaviour towards others.
Dave, P.U., Chauvan, V., & Dalvi, J. (1993)	Evaluation of B.R. - 16A (Mentat) in Cognitive and Behavioral Dysfunction of Mentally Retarded Children- A Placebo-Controlled Study.	Indian Journal of Pediatrics	To investigate the Cognitive and Behavioral Dysfunction of Mentally Retarded Children	Intellectually disabled children of different categories possess cognitive deficits associated with different types of socially unapproved problem behaviours. Among different types of problem behaviours restlessness, distractibility, hyperactivity, aggressive behaviour and destructive behaviours are common among these group of children. Intellectually disabled individuals who are habituated in different types of problem behaviours are unable to learn the new socially approved behaviours. As a result these group of individuals cannot at just with their nearest family members, primary care givers and their peers.
Fee, V.E, Matson, J.L., & Benavidez, D.A. (1994)	Attention deficit hyperactivity disorder among mentally retarded children.	<i>Research in developmental disability</i>	The primary objective of this research was to investigate the presence of Attention Deficit Hyperactivity Disorder (ADHD) within the sample and to make a comparison specifically between the group of children with both mental retardation and ADHD and the group of children with ADHD and normal IQ.	The findings revealed that both the ADHD group and the mentally retarded ADHD group rated significantly higher in hyperactivity, conduct problems, hyperactivity index, and emotional overindulgence compared to the normal control group. In terms of the Anxious-passive factor, it was noted that both mentally retarded groups rated higher than the normal control group. Additionally, in the daydream-attention factor, both ADHD groups had significantly higher rates compared to the normal group.
Pickersgill, M.J., Valentine, J.D., & May, R. (1994).	Fears in mental retardation: part two prevalence of fears reported by mentally retarded and non-	<i>Advance behavioural research theory</i>	The primary objective of this research was to compare the levels of fear between the two groups, individuals with	The findings indicated that individuals with intellectual disabilities demonstrated higher levels of fear compared to those without intellectual disabilities.

	mentally retarded adults.		intellectual disabilities (MR) and those without (NMR).	Notably, within the MR group, certain fears were more prevalent. These included the fear of heights and deep water (Ag), fears related to the sight of fear, medical odors, animal blood, and cemeteries (TD), fears associated with ugly people, weapons, nudity (both male and female), and being touched (SA), and fears related to worms, the sight of earthworms, and parasites (An).
Miller, A.A.N. (1995).	Modifying the Antisocial Behaviour of Mentally Retarded Children.	<i>Chicago Journals</i>	The primary objective was to address and amend the antisocial behaviours exhibited by these children.	Result showed that several negative behaviours were prevalent among these children, including tendencies to kick and hit, engage in fights, experience personal conflicts, use name-calling and directed swearing, and exhibit extreme restlessness. However, Miller reported a positive outcome after implementing behavioural modification interventions.
Lynn, G., Bowman, W. W., Fisher, R. H., Thompson, & Cathleen C. P. (1997).	On the relation of mands and the function of destructive behaviour.	<i>Journal of applied behaviour analysis</i>	To investigate the child's requests for reinforcement, known as "mands," can help pinpoint the underlying causes of destructive behaviour.	Destructive behaviour consistently occurred at high levels when the reinforcement of mending was contingent upon destructive actions, while it virtually ceased when mending was reinforced on the FR 1 schedule. A second analysis was conducted. During this phase, compliance with the child's mending requests only occurred when the child made appropriate requests (termed functional communication training plus extinction).
Julie, E., Mcentee, & Richard, R. S. (1997).	A response-restriction analysis of stereotypy in adolescents with mental retardation: implications for applied behaviour analysis.	<i>Journal of applied behaviour analysis</i>	In this study, the behaviour of four adolescents with severe or profound mental retardation was examined during unstructured leisure activities.	In summary, this research contributes to our understanding of how individuals with severe or profound mental retardation engage with materials and how behavioural interventions can be tailored to address specific behaviours, particularly stereotypic behaviours.
Shirley, M.J., Iwata, B.A., & Kahng, SW	False positive maintenance of self-	<i>Journal of Applied Behaviour Analysis</i>	The purpose of the study was to know whether	The subject was a 26 years old women with severe intellectual

(1999).	injurious behaviour by access to tangible reinforcers.		self-injurious behaviour are maintained by multiple reinforcers.	disability. She possess hand mouthing behaviour. The researchers observed the behaviour for 2.5hour during her leisure (non-training) activities. They noted that hand mouthing behaviour is ignore most cases by the general staff. A small proportion of physical or verbal attention is not sufficient to be a reinforcer for such self-injurious behaviour. As a tangible item the researchers used presentation of a towel to wipe the hands of the subject. Result showed that hand mouthing behaviour did not increase during the tangible (towel) condition than it was during the alone condition.
Carole, M., Van Camp, D. C., Lerman, M. E., Kelley, S. A., Contrucci, & Christina, M. V. (2000).	Variable-time reinforcement schedules in the treatment of socially maintained problem behaviour.	<i>Journal of applied behaviour analysis</i>	The study aimed to compare the impact of VT and FT reinforcement schedules in managing problem behaviour maintained by positive reinforcement.	The findings from the study indicated that both FT and VT schedules were successful in reducing problem behaviour. This suggests that VT schedules can also be a viable and effective approach in the treatment of problem behaviour when it is maintained by social consequences, such as positive reinforcement.
Einfeld, S.L., Tinge, B.J., & Rees, V.W. (2001).	Longitudinal Course of Behavioural and Emotional Problems in Williams Syndrome.	American Journal on Mental Retardation	To study the behavioural and Emotional Problems in Williams Syndrome.	Researchers used Developmental Behaviour Checklist to study the young people with Williams Syndrome and with intellectual disability. Researchers noted that individuals with Williams's syndrome causes significantly higher levels of emotional and behavioural problems, communication disturbance and anxiety disorder.
Deb, S., Thomas, M., & Bright, C. (2001).	Mental disorder in adults with intellectual disability. 2: the rate of behaviour disorder among a community-based population aged between 16 and 64 years.	<i>Journal of Intellectual Disability Research</i>	The primary objective of this study was to assess the prevalence of challenging behaviours within a population-based sample of adults with intellectual disabilities (ID).	The study's findings indicated that out of the 101 individuals, 61 participants (60.4%) displayed behaviour disorders. These included 23 participants exhibiting aggression, 12 showing destructive behaviours, 24 displaying self-injurious tendencies, 36 experiencing

				temper tantrums, 29 demonstrating screaming episodes, 11 exhibiting antisocial behaviour, and 4 participants showing signs of sexual delinquency.
Sungwoo, K., Jonathon, T., & Arthur, E. W. (2001).	Use of a multicomponent treatment for food refusal.	<i>Journal of applied behaviour analysis</i>	Researchers investigated the effectiveness of a multi-component treatment approach for addressing food refusal in a 5-year-old boy diagnosed with mild to moderate mental retardation.	In summary, the multi-component treatment approach used in this study proved to be highly effective in addressing food refusal in a child with mild to moderate mental retardation. It resulted in increased food acceptance and reduced problem behaviour, while also empowering caregivers to continue implementing the treatment successfully.
Holden, B., & Gitleson, J.P. (2003).	Prevalence of psychiatric symptoms in adults with mental retardation and challenging behaviours.	<i>Research in Developmental Disabilities</i>	The study aimed to investigate the relationship between psychiatric symptoms and various types of challenging behaviours in adults with intellectual disabilities.	Findings revealed that 55% of the individuals in the challenging behaviour group exhibited self-injurious behaviours. Additionally, they observed a correlation between challenging behaviours and the level of intellectual disability, with more severe cases of mental retardation associated with a higher incidence of self-injurious behaviours. The study also identified the presence of psychiatric disorders in both groups, but the prevalence was notably higher in the challenging behaviour group. Specifically, anxiety, psychosis, and hypomania were more prevalent in the challenging group, while depression was more common in the control group, although this difference was not statistically significant.
Carole, C., Raymond, M., Amber, M., Rebecca, B., Mandy, J., Angela, S., Meredith, H., & Brandon, K. (2004).	A comparison of response cost and differential reinforcement of other behaviour to reduce disruptive behaviour in a preschool classroom.	<i>Journal of applied behaviour analysis</i>	In this study, the researchers aimed to assess the effectiveness of two behaviour management techniques, namely response cost and differential reinforcement of other behaviour (DRO)	In summary, while both DRO and response cost interventions were initially effective in reducing disruptive behaviours among the children, the study found that over time, the response cost approach proved to be more successful in managing and reducing these disruptive

				behaviours in the preschool classroom.
Holden, B., & Gitlesen, J. (2005).	A total population study of challenging behaviour in the county of Hedmark, Norway: Prevalence, and risk markers.	<i>Research in Developmental Disabilities</i>	The objective of this study was to investigate various forms of challenging behaviours among children and adults with intellectual disabilities in Hedmark County, Norway.	Findings revealed that challenging behaviours were present in 91 individuals, constituting 11.1 percent of the participants. Among these, 60 participants (7.3%) displayed less demanding challenging behaviours, while 31 participants (3.8%) exhibited more demanding challenging behaviours. Additionally, 53 participants (6.4%) displayed a general form of aggression towards others, and self-injurious behaviour was observed in 36 participants (4.4%).
Eisenhower, A.S., Baker, B.L., & Blacher, J. (2005).	Pre-school children with intellectual disability: syndrome specificity, behaviour problems and maternal wellbeing.	<i>Journal of Intellectual Disability Research</i>	The objective of the study is to search syndrome specific problem behaviour with maternal wellbeing.	Result showed that in the age-3 and in the age-5 problem behaviours are commonly found related to syndrome specificity of the subject. When maternal wellbeing of the syndrome of the specific subjects were considered it was noted that maternal stress and depression are closely associated with manifestation of different types of problem behaviours among the children.
Crocker, A. G., Mercier, C., Lachapelle, Y., Brunet, A., Morin, D., & Roy, M. E. (2006).	Prevalence and types of aggressive behaviour among adults with intellectual disabilities.	<i>Journal of Intellectual Disability Research</i>	To assess the prevalence of aggressive behaviour among adults with intellectual disabilities (ID). To examine the differences and similarities in aggressive behaviours between males and females within this population.	The results revealed that, within the past 12 months, an overall 51.8% of individuals exhibited aggressive behaviours. Among the various categories of aggressive behaviour, verbal aggression was the most prevalent (37.6%), while sexual aggression was the least common (9.8%). Gender differences were noted: men scored higher than women in property and sexual aggression, while women scored higher in self-aggression. It was also observed that verbal aggression was more common among individuals with mild to moderate ID (41.4%) compared to those with severe and profound ID (29.4%). Conversely, individuals

				with profound and severe ID (31.6%) displayed more physical aggression than those with moderate and mild ID (21%).
Jolanda, C.H.D., Marielle, C., Dekker, K.P., de Ruiter, N.T.T., Koot, H.M., & Bodfish, J. (2007).	Antisocial and delinquent behaviours in youths with mild or borderline disabilities.	<i>American Journal on Mental Retardation</i>	Researchers studied on anti-social and delinquent behaviours of mild to borderline children with intellectual disability and without intellectual disability.	For data collection the researchers studied 526 youths (11-24 years of age) with mild to borderline intellectual disabilities and 1030 youths (11-18 years of age) who have no disabilities at all. Researchers noted that intellectually disabled possess antisocial and delinquent behaviours in only 10 to 20% cases. They also found that male intellectually disabled child having younger chronological age possess more antisocial and delinquent behaviours than their non-disabled Peers.
Crocker, A. G., Mercier, C., Allaire, J. F., & Roy, M. E. (2007).	Profiles and correlates of aggressive behaviour among adults with intellectual disabilities.	<i>Journal of Intellectual Disability Research</i>	The study focused on adults with mild to moderate intellectual challenges, examining their aggressive behaviour profiles and their psychosocial associations.	In summary, the study found that adults with mild to moderate intellectual challenges can exhibit diverse profiles of aggressive behaviours, which vary in type and severity. Understanding these profiles is important for tailoring interventions and support for this population.
Dominick, K.C., Davis, N.O., Lainhart, J., Flusberg, H.T., & Folstein, S. (2007).	Atypical behaviours in children with autism and children with a history of language impairment.	<i>Research in developmental disability</i>	The primary objective of the study was to identify atypical behaviour patterns in children with Autism Spectrum Disorder (ASD) and children with Language Impairment (HLI).	The study revealed that a total of 22 students exhibited self-injurious behaviours, with 18 of them belonging to the autism group and 4 to the language impairment group. Common self-injurious behaviours included head banging, hitting oneself, and biting oneself. Notably, 60% of children with ASD displayed self-injurious behaviour during the interview period. Aggressive and temper tantrum behaviours were also found in participants.
Douma, J. C. H., Dekker, M. C., de Ruiter, K. P., Tick, N. T., & Koot, H.M. (2007).	Anti-social and delinquent behaviours in youths with mild or borderline disabilities.	<i>American Journal on Mental Retardation</i>	The objective of the study was to access the problem behaviours like antisocial and delinquent behaviours among intellectually	Result showed that most types of antisocial and delinquent behaviour like physical aggression, theft, property destruction, authority avoidance and substance abuse where

			challenged children.	displayed by 10-20% of youths to possess intellectual disability. They also noted that a vast majority of intellectually disabled subjects never show any antisocial or delinquent behaviours. Though, antisocial and delinquent behaviours are common among intellectually disabled subjects. But this study was the first of its kind were population based sample of 11-24 years old with mild to borderline intellectual disability were consider using information from multiple informants.
McCarthy, J. (2008).	Behaviour Problems and Adults with Downs Syndrome: Childhood risk factors.	<i>Journal of Intellectual Disability Research</i>	The aim of the study was to search if childhood risk factors may be considered as the predictors of severe behaviour disorder in young adults with downs syndrome.	Result showed that childhood psychopathology is associated with severe behaviour disorders among down syndrome individuals. When the down syndrome baby did not received any early intervention facilities, in their cases there is more risk of manifestation of different types of problem behaviours in their adult life. They also noticed that in case of down syndrome individuals childhood family environment cannot be considered as the causative factor of origin of problem behaviours in adult age.
Jones, S., Cooper, S.A., Smiley, E., Allan, L., Williamson, A., & Morrisin, J. (2008).	Prevalence of and factors associated with problem behaviour in adult with intellectual disabilities.	<i>The journal of nervous and mental disease</i>	The objective of this study was to investigate problematic behaviours among adults with intellectual disabilities and identify the factors associated with challenging behaviours.	The findings of the study revealed that out of the 1,023 participants, 191 individuals (18.7%) exhibited challenging behaviours. These challenging behaviours included 77 instances of verbal aggression, 64 cases of physical aggression, 50 incidents of self-injurious behaviour, 24 instances of sexually inappropriate behaviours, and 31 cases of destructive behaviours. Furthermore, the study identified several factors independently associated with problem behaviours. These included lower levels of cognitive ability, female gender, and living in congregate

				care settings or with paid caregiver support, experiencing urinary incontinence, having attention deficit hyperactivity disorder, having visual impairment, not having Down syndrome, and not having severe physical disabilities.
Myrbakk, E. (2008).	Behaviours problems and psychiatric disorders among people with intellectual disability.	Series of dissertation submitted to the faculty of social sciences, University of Oslo	The objective of the study were, 1) To examine the prevalence of behaviour problems in a representative sample of people with intellectual disability. 2) To examine the association between behaviour problems and psychiatric disorders of intellectually challenged.	Result showed that 1) Intellectually challenged people demonstrate a significant association between behaviour problems and psychiatric disorders, and the behaviour problems may not be a direct expression of psychiatric disorders. 2) People with autism seen especially vulnerable for developing behaviour problems. 3) Very few participants with down syndrome had behaviour problems. 4) More symptoms of psychiatric disorders were found among participants with mild and moderate than among participants with severe and profound intellectual disability.
Petty, J., Allen, D., & Olive, C. (2009).	Relationship among challenging repetitive and communicative behaviours in children with severe intellectual disabilities.	<i>American Journal on Intellectual and Developmental Disabilities</i>	To study the relationship among challenging repetitive and communicative behaviours in children with severe intellectual disabilities.	They noted that out of 6 subjects 5 subject possess self-injurious behaviour, 4 subjects possess potentially injurious behaviour, 5 subject possess repetitive behaviour. Repetitive, potentially injurious and self-injurious behaviours shown by intellectually disabled where temporally associated and the result is significant. Pragmatic communicative behaviour where also strongly temporally associated with all the mentioned challenging behaviours shown by intellectually disable subjects.
Erin, M., Camp, B. A., Iwata, & Jennifer, L. H. (2009).	Antecedent versus consequent events as predictors of problem behaviour.	<i>Journal of applied behaviour analysis</i>	The study explored conditional probabilities based on a combination of antecedent and consequent events to determine whether these provided better insight	In summary, comparisons between descriptive and functional analyses have often revealed discrepancies. While antecedent events were explored as potential predictors of problem behaviour, they did not

			into the function of the problem behaviour.	consistently demonstrate superior accuracy compared to consequent events in determining the function of the behaviour.
Rubin, K.H., Coplan, R.J., & Bowker, J.C. (2009).	Social withdrawal in childhood.	<i>Annual Review of Psychology</i>	To study the causes of social withdrawal in childhood	Childhood social withdrawal with some time co-related with qualities of peers interaction, peers relationships or self and social cognition. Language skills, academic attachment, classroom climate, school environment and teacher child relationships are also responsible for social withdrawal. Little evidence is known that sex difference and social withdrawal is closely related to reduce social withdrawal among the children including the developmentally disabled children, early intervention is prescribed.
Symons, F.J., Byiers, B.J., Raspa, M., Bishop, E., & Bailey, D.B. (2010).	Self-injurious behaviour and fragile X syndrome: findings from the national Fragile X Syndrome.	<i>American Journal on Intellectual and Developmental Disabilities</i>	Study the Self-injurious behaviour and fragile X syndrome	The result showed that male fragile X syndrome individuals possess sleep difficulties, seizures, pain sensitivity and comorbid conditions. They also noticed that female subjects possess autism anxiety disorder and attention disorder. So, they proved that in respect of problem behaviours fragile X syndrome subjects possess gender differences.
Burbidge, C., Oliver, C., Moos, J., Arron, K., Berg, K., Hill, L., Trusler, K., Furnish, F., & Woodcock, K.A. (2010).	The association between repetitive behaviours, impulsivity and hyperactivity in people with intellectual disability.	<i>Journal of Intellectual Disability Research</i>	To study the association between repetitive behaviours, impulsivity and hyperactivity in people with intellectual disability.	Result showed that there exists a significant positive associations between over activity and stereotyped behaviour, impulsivity and restricted preferences, impulsive speech and repetitive speech.
Poppes, P., Putten, A.J.J., & Vlaskamp, C. (2010).	Frequency and severity of challenging behaviour in people with profound intellectual and multiple disabilities.	Research in <i>Developmental Disabilities</i>	The primary objective of this research was to ascertain the occurrence, frequency, and intensity of challenging behaviours exhibited by individuals with profound intellectual and multiple disabilities (PIMD).	The study observed that 82% (148 individuals) engaged in stereotypical behaviours on a daily basis. These behaviours encompassed actions like screaming, shouting, and repetitive hand movements. Additionally, 81 participants (45%) demonstrated aggressive or destructive behaviours, typically

				occurring once a week. Within this category, behaviours such as hitting others, grabbing others, and pinching others were frequently observed.
Tenneij, N., Didden, R., & Koot, H.M. (2011).	Predicting change in emotional and behavioral problems during inpatient treatment in clients with mild intellectual disability.	<i>Journal of Applied Research in Intellectual Disabilities</i>	Researchers studied on 87 individuals with mild intellectual disability when they remain admitted in hospital for treatment.	All these clients showed different types of severe problem behaviour. The emotional and behavioral all problems of these 87 individuals were measured by Adult Behaviour Checklist (ABCL). Result showed that during the treatment period emotional and behavioural problems of the clients decreased female clients benefit less than the male client from such a inpatient treatment programme. Gender differences were also established.
Ekstein, S., Glick, B., Weill, M., Kay, B., & Berger, I. (2011).	Down syndrome and attention deficit/hyperactive disorder (ADHD).	<i>Journal of child neurology</i>	To study the prevalence of Attention Deficit Hyperactivity Disorder (ADHD) in children with down syndrome and try to find out is there any relationship between ADHD symptoms and the level of mental retardation.	The study's findings revealed a notably high prevalence of ADHD among children with Down syndrome. Specifically, among 7 students with mild intellectual disabilities, 5 exhibited symptoms of ADHD. Furthermore, among 14 students with mild to moderate intellectual disabilities, 6 displayed symptoms of ADHD. Among 12 students with moderate intellectual disabilities, 5 had ADHD symptoms, and among 3 students with moderate to severe intellectual disabilities, 2 exhibited symptoms of ADHD. Interestingly, the investigators did not identify a significant correlation between the severity of intellectual disability and the presence of ADHD symptoms.
Hayas, S., McGuire, B., O'Neill, M., Oliver, C., & Morrison, T. (2011).	Low mood and challenging behaviour in people with severe and profound intellectual disabilities.	<i>Journal of Intellectual Disability Research</i>	The primary aim of the study was to explore whether there was a connection between low mood and challenging behaviours in this population of intellectually challenged adults.	Surprisingly, the study's findings indicated that individuals who exhibited low mood also tended to display severe challenging behaviours. Among the participants, 29 adults were diagnosed with Autism Spectrum Disorder (ASD), while 23 were categorized as non-ASD. The

				researchers noted a significant difference between the two groups, specifically in terms of the prevalence of challenging behaviours.
Bowring, D. L., Totsika, V., Hastings, R. P., Toogood, S., & Griffith, G. M. (2016).	Challenging behaviours in adults with an intellectual disability: A total population study and exploration of risk indices.	<i>British Journal of Clinical Psychology</i>	The primary objective of this study was to assess the prevalence of challenging behaviours among adults with intellectual disabilities (ID) residing in Jersey.	The findings revealed that out of the 265 adults, 48 individuals (18.1%) exhibited challenging behaviours. Among these challenging behaviours, self-injurious behaviour was present in 20 adults (7.5%), aggressive and destructive behaviour in 22 adults (8.3%), and stereotype behaviour in 29 adults (10.9%).
Fauth, R.C., Platt, L., & Parsons, S. (2017).	The behaviour problems among disabled and non-disabled children in England.	<i>Journal of Applied Developmental Psychology</i>	To investigate the behaviour problems among disabled and non-disabled children in England.	Result showed that disabled children possess more problem behaviours than non-disabled children at the age 3. Disabled boys show increasing gap in peer problems, hyperactivity and emotional problems overtime. Researchers also noted that in less cases parenting style and problem behaviours are associated moderately.
Goldman, K.J., & DeLeon, I.G. (2022).	Increasing selection of and engagement in physical activity in children with autism spectrum disorder.	<i>Journal of Applied Behaviour Analysis</i>	1.Evaluate the Impact of Physical Activity Options and Effort on Choice 2. Develop a Token-Based Intervention	Findings suggest that simply providing more physical activity options may not be sufficient to increase physical activity among children with ASD. However, efforts to reduce the ease of selecting sedentary activities can help promote physical activity. Token-based interventions appear to be a promising strategy for increasing physical activity engagement in some children with ASD. Furthermore, the combination of both physical and sedentary activities may be particularly effective in maintaining or enhancing overall participation.
Melanson, I.J., & Fahmic, T.A. (2023).	Functional analysis of problem behaviours: A 40year review.	<i>Journal of Applied Behaviour Analysis</i>	To investigate functional analysis of problem behaviours.	From the 326 research studies it was found that topographically maximum sample possess aggressive behaviour (n=180, 55.2%) followed by self-injurious behaviour (n=136, 41.7%),

				disruptive behaviour (n=84, 25.8%), property destruction (n=68, 20.9%), stereotype behaviour (n=46, 14/1%), non compliance (n=36, 11%), temper tantrums (n=16, 4/9%), inappropriate meal behaviour (n=12, 3.7%) and receiving pica (n=11, 3.4%) etc. When functional analysis type of the research studies were considered it was noted that in 92.0% cases Antecedent Behaviour Consequence (ABC) model were used.
REVIEW OF INDIAN RESEARCH LITERATURES				
Solanki, S.L. (1993).	Behavioural Problem in Mentally Retarded Children In relation to Family Environment.	P.hD thesis, Women's University, Bombay	<p>To identify problematic behaviours in both mentally retarded and mentally normal students.</p> <p>To investigate the factors contributing to these behaviour problems.</p> <p>To assess whether there were any gender differences in behaviour problems.</p>	<p>Upon analysing the data, it was observed that the average scores for all problem behaviours, including irritability, hostility, stereotyping, passivity, and disorientation, were significantly higher among mentally retarded children compared to their mentally normal counterparts. Furthermore, the study revealed that families with intellectually disabled children exhibited lower levels of expressiveness, cohesiveness, independence, and achievement orientation.</p> <p>In terms of gender differences, as assessed through parent and teacher rating scales, intellectually challenged boys were found to exhibit a higher degree of impulsivity, hyperactivity, and aggressiveness when compared to girls.</p>
Nanda, B.P. (1997).	Modification of eye pocking of a total congenital blind girl by differential reinforcement technique by Applied Behaviour Analysis procedure.	<i>Journal of Education</i>	The purpose of the research investigation was to developed and validate a systematic observational methodology.	Result showed that differential reinforcement of other behaviour is effecting in reducing eye pocking behaviour of visually disabled children. Use of this method is scientifically accepted by a good number of researchers in the field of behaviour modification.
Nanda, B.P. (1999).	Reducing self-stimulatory stereotyped body rocking of a	<i>Indian Journal of Clinical Psychology</i>	To reduce self-stimulatory stereotyped body rocking of a	Result clearly demonstrate that environmental manipulation and differential reinforcement

	retarded boy by differential reinforcement techniques and environmental manipulation.		retarded boy by using differential reinforcement technique and environmental manipulation.	techniques are effective in reducing body rocking behaviour of intellectually and developmentally disabled child.
Kishore, M.T., Nizamie, S.H., & Nizamie, A. (2005).	The behavioural profile of psychiatric disorders in persons with intellectual disability.	<i>Journal of Intellectual Disability Research</i>	The primary objective of this study was to explore and understand behavioural disorders in individuals with intellectual challenges.	In summary, the research findings indicate varying prevalence rates of different problem behaviours among individuals with intellectual challenges. Aggression was most common and was particularly high in the affective group. Rebellious behaviours were prominent in the affective and "other" groups, while psychological disturbances were more pronounced in the affective group. Stereotyped behaviours and odd mannerisms were more prevalent in the behavioural group compared to the affective group.
Nanda, B.P., & Mitra, M. (2006).	Use of primary reinforcement technique in the modification of aggressive and hyperactive behaviours of child with mental retardation.	<i>Journal of Education</i>	Modification of aggressive and hyperactive behaviour of an intellectually disabled baby by using primary reinforcement technique.	The research showed that use of primary reinforcer and teachers attention can eliminate maladaptive behaviours of the subject in the classroom and their by support the child in new learning as well as in integrating with the peer groups and family members.
Prakash, J., Sudarsanan, S., Pardal, PK., & Chaudhury, S. (2006).	Study of Behaviour Problems in a Paediatric Outpatient Department.	<i>Medical Journal, Armed Forces India</i>	To study of Behaviour Problems in a Paediatric Outpatient Department.	There was no significant difference in the behaviour problems between different age groups and sex. There was no significant difference in behaviour problems between children of officers, other ranks or various income groups. Female children had behaviour problems like "too concerned with neatness or cleanliness", "feels has to be perfect" and "argues a lot" whereas male children had behaviour problems like "Does not feel guilty after misbehaving", "argues a lot" and "restless". Behaviour problems in the subjects were externalizing

				ones. No specific trend was found in children of deference personnel visa viz. children of civilian population.
Prakesh, J., Sudarsanan, S., & Prabhu, H.R.A. (2007).	Study of behaviour problem in mentally retarded children.	<i>Delhi Psychiatry journal</i>	The primary objective of this study was to investigate behavioural problems among children with mental retardation.	The study's results indicated that, on average, the mean score for challenging behaviours in the CBCL was 56.42, with a standard deviation of 35.37. Notably, the prevalence of problem behaviours was significantly higher among the younger age group (6-11 years) compared to the older age group (12-14 years). Children with moderate mental retardation exhibited a greater number of behaviour problems in comparison to those with mild mental retardation.
Nanda, B.P., & Mazumder, P. (2007).	A survey study on extent and types of maladaptive 68 behaviours existed among the special school enrolled children with mental retardation.	<i>Journal of Education</i>	To study the maladaptive behaviours among special school enrolled children with mental retardation	The researchers observed that a smaller proportion of the sample exhibited violent, destructive, self-injurious, and antisocial behaviours. However, a significant number of children in the sample displayed disruptive behaviours, such as making loud noises while others were working. Repetitive and stereotyped behaviours were more prevalent among the children, including actions like body-rocking and continuously waving their hands or body parts.
Biswas, T.H., Chaterjee, I., & Nanda, B. (2011 & 2012).	A study on extent and type of problem behaviour exist among the visually impaired child with mental retardation and cerebral palsy and their impact upon parental distress.	<i>Indian journal of special education</i>	To study the type of problem behaviour exist among the visually impaired child with mental retardation and cerebral palsy and their impact upon parental distress.	Result showed that multiple disabled children possess almost all types of problem behaviours mention in Behaviour Rating Scale (AAMR). They also noted that anti-social behaviours are almost rare among children having visual impairment and cerebral palsy and among visual impaired with mental retardation and cerebral palsy. They also found that those developmentally disabled children who express more problem behaviours, their parents are more affected,

				anxiety, depression, distress. Mothers possess more anxiety, depression and distress than the fathers.
Khoshali, A.K. (2013).	The study on behaviour problem in children with mental disabilities.	<i>European Journal of Experimental Biology</i>	The primary objective of this study was to investigate problem behaviours in children with intellectual challenges (ID).	Violent behaviour was observed in 27% of the children. Temper-related issues were present in 10% of the children. Self-injurious behaviours were exhibited by 9% of the children. Misbehaviour with others was noted in 21% of the children. Repetitive behaviours were displayed by 12% of the children. Antisocial behaviours were observed in 15% of the children. Rebellious behaviours were present in 23% of the children. Fear was reported in 3% of the children.
Nanda, B.P., & Mondal, S. (2015).	Extent of problem behaviours among children with multisensory impairment (deaf blind).	Behaviour modification of children with special need seminar proceedings: a collection of research papers. Department of Education, Jadavpur University and Arogya Sandhan Charitable Trust, Kolkata	The objectives are the research are- 1. To study the extent and types of problem behaviour existed among children with multisensory impairment and 2. To investigate the types of problem behaviours that are common among children with multisensory impairment.	Result showed that 60% sample shows violent behaviours towards others, 70% shows destructive behaviour, 45% shows disruptive behaviour. Self-injurious behaviour are almost rare among the samples. Majority of the sample shows different types of withdrawal behaviours, rebellious behaviours and hyperactive behaviours. No sample shows anti-social behaviours though most amongst them shows masturbation in front of others. Researchers concluded that identification of problem behaviours among multisensory impaired children is essential to provide them early intervention facilities to modify their problem behaviours for learning of socially approved behaviours.
Nanda, B.P., & Tripathi, A.. (2015).	A study on the behavioural problems of children with visual impairment.	Behaviour modification of children with special need seminar proceedings: a collection of research papers. Department of Education, Jadavpur	The objectives of the study were-1. To study the behavioural problem of children with Visual impairment and 2. To study the problem behaviours of visually impaired children on the	Result showed that girls respondents possess more behaviour problems than the boys respondents. Respondents who possess age 11 and above showed more behaviour problem. Respondents from semi-urban areas and respondents in the

		University and Arogya Sandhan Charitable Trust	basis of their demographic features	academic standard class-IV onwards possess more behaviour problems. Respondents from nuclear families and respondents who have severe and moderate visual disability possess more problem behaviours. Researchers concluded that due to the lack of vision these responds are unable to draw stimulations from the external environment and therefore, they became habituated in self-stimulatory behaviours as well as attention seeking behaviours to draw attention to others.
Mondal, P., & Nanda, B.P. (2015).	Assessment of problem behaviours among intellectually impaired children by using BASIC-MR (Part-B).	Behaviour modification of children with special need seminar proceedings: a collection of research papers. Department of Education, Jadavpur University and Arogya Sandhan Charitable Trust, Kolkata.	To assess the problem behaviours among intellectually impaired children by using BASIC-MR (Part-B).	Result showed that the sample never shows some violent and destructive behaviour like attacking or pocking others with weapons, throwing objects to others, tearing or pulling threads from their own cloths or others cloths, tearing up own or others books, papers, and magazines and damaging furnitures. Temper tantrum behaviour is common. Self-injurious behaviour were also common. Repetitive behaviour like uttering popular sounds are uncommon but thumb sucking are almost universal. Odd behaviours are totally absent among the samples. Hyperactive behaviours, rebellious behaviours are also common, though anti-social behaviours are rare. All the samples shows fear of animals.
Lakhan, R., & Kishore, M.T. (2016).	Behaviour problems of intellectually disabled children in resource-poor setting in India- Part-I: Association with age, sex, severity of intellectual disabilities and IQ.	<i>Journal of Applied Research in Intellectual Disabilities</i>	The objectives of the study was to examine the distributions of behaviour problems among intellectually challenged children on the basis of their age, gender and IQ.	Result showed that problem behaviours like violent and destructive behaviour, temper tantrum and self-injurious behaviuir were differently distributed among intellectually disabled children. IQ and problem behaviours like destructive and violent behaviours and miss behaviours with others are associated with positive significance: were as temper

				tantrum and self-injurious behaviour possess a significant negative co-relation. Age of the subjects are associated with positive significance with problem behaviours like violence, destructive behaviours, odd behaviours and hyperactive behaviours and inversely associated with self-injurious behaviours.
Mondal, P., & Nanda, B.P. (2016).	A study on the behavioural problems of children with intellectual impairment and associated disorders.	RENOVA	The objective of the study was to know the different types of problem behaviours associated with intellectual disability and other related disabilities	Result showed that children whose age is 15 or more, they possess more problem behaviours than the younger children. When genders of the samples were considered it was found that boys possess more problem behaviours than girls. When family status were considered it was found that children from nuclear families possess more problem behaviours than the children from joint families. The children who have severe multiple disabilities possess more problem behaviours than the children who are mildly or moderately disabled and who possess only intellectual disability.
Pikakshi., Verma, K.K., Goyal, S.G., Thakral, A., & Baniya, G.C. (2019).	Comorbidities among children with intellectual disability presenting for disability certification at a tertiary care center and assessment of burden in mothers of those children.	<i>Journal of Mental Health and Human Behaviour</i>	The primary aim of this study was to investigate various aspects concerning children with intellectual challenges.	In summary, this study aimed to understand the physical, behavioural, and sleep problems in children with intellectual challenges and the burden that mothers of these children may face. It identified common problem behaviours, gender differences, and the relationship between mothers' burden and their children's cognitive and social abilities.
Mondal, P., & Nanda, B.P. (2020).	Treatment of aggressive behaviour of intellectually challenged learner by using primary and social reinforcers.	RENOVA	To treat the aggressive behaviour of intellectually challenged learner by using primary and social reinforcers.	The researchers carefully selected ABC Model for modify the problem behaviours of the child. The investigators used both primary and social reinforcers in fixed interval and variable interval schedule. Result showed that use of ABC Model along

				with reinforcers become helpful for behaviour modification of intellectually disabled children.
Mondal, P., & Nanda, B.P. (2020).	Extent and types of repetitive/ stereotyped behaviours exists among school enrolled developmentally challenged children-A study.	<i>Indian Journal of Special Education</i>	To study the extent and types of repetitive/ stereotyped behaviours exists among school enrolled developmentally challenged children	Results demonstrate that developmentally disabled children possess different types of repetitive or stereotype behaviours which are self-stimulating in nature. In the present inclusive education setup developmentally challenged children are enrolled in mainstream primary and secondary schools. Therefore, studying the problem behaviours of disabled children become important day by day. So, that the teachers and parents can immediately take steps to modify the self-stimulatory stereotyped behaviours of this group of children.
Ata, S., & Nanda, B.P. (2020).	Aggression and violent behaviours among challenged and non-challenged: A critical review of related studies.	<i>Indian Journal of Special Education</i>	To study the Aggression and violent behaviours among challenged and non- challenged	Different types of disabled children possess different types of problem behaviours among which aggressive and violent behaviours are common and serious for showing these behaviours the non-disabled student in the class as well as the family members of the disabled child cannot accept them. Therefore it is important to modify these problem behaviours.

CHAPTER-III

RESEARCH METHODOLOGY

POPULATION:

For present study the investigator comprised population of all the special school enrolled developmentally disabled students studying in different district of West Bengal.

SELECTION OF THE SAMPLES:

The sample consists of 124 children with developmentally disabled from different special school of Kolkata metropolitan city and South 24 Parganas district of West Bengal. The investigator adopted purposive sampling technique for the sample selection.

VARIABLES:

Dependent variables:

1. Problem Behaviours.

Independent variables:

1. Gender
2. Age
3. Educational standard:
4. Habitat
5. Family Structure
6. Family Income of the Parents
7. Parental Education
8. Birth order of the child
9. Age of onset of disability

10. Availability of Early Intervention Facilities
11. Availability of Parental Counselling
12. Availability of Parental Training on Parental Involvement
13. Availability of Parental Support
14. Availability of Community Support
15. Types of Disability
16. Range of Disability
17. Marital relationship after the birth of disabled child

RESEARCH TOOL:

For collection of data the investigator used one standardized tool, described below:

Child Behaviour Checklist (CBCL) for ages 6-18; this tool was developed by Achenbach, T.M., and Rescorla, L.A. in 2001. The questionnaire consists of 113 items. The CBCL is a valid and reliable measure which is sensitive to change in short interventions.

COLLECTION OF DATA:

The current research was carried out in the districts of South 24 Parganas and Kolkata (Metropolitan City), West Bengal. The samples were selected within the age range of 6 to 18 years of developmentally disabled children. After the collection of data, the investigator cleaned, quantified, and tabulated the collected data as much as possible to prepare it for further analysis and interpretation.

STATISTICAL ANALYSIS:

The investigator tabulated each data on an excel sheet as systematically as possible. The data was examined using the Statistical Package for the Social Sciences (SPSS) tool. The investigator utilised descriptive and inferential statistical measures based on the study's objectives and hypotheses.

CHAPTER –IV

ANALYSIS AND INTERPRETATION OF DATA

The researcher has divided the present chapter into two parts. The first part presents descriptive statistical analysis with interpretation and represented mean, standard deviation, graphical representation. Second part serves inferential analysis of data with the independent samples. At the end of the statistical analysis, the researcher also includes some case study report of developmentally disabled children.

The outcomes have been presented in the summarized format below:

No. of the Hypotheses	Hypotheses	Remarks
H₀1.	There is no significant median difference between developmentally disabled boys and girls on the basis of their problem behaviours.	Accepted
H₀2.	There is no significant median difference between developmentally disabled different age groups children on the basis of their problem behaviours.	Rejected
H₀3.	There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their educational standard.	Rejected
H₀4.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their habitat.	Accepted
H₀5.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their family structure.	Accepted
H₀6.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their family incomes.	Rejected

H₀7.	There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their parental education.	Rejected
H₀8.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their birth order.	Rejected
H₀9.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their age of onset of disability.	Rejected
H₀10.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of early intervention facilities.	Accepted
H₀11.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of parental counselling.	Accepted
H₀12.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of training on parental involvement.	Accepted
H₀13.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of parental support.	Accepted
H₀14.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of community support.	Rejected
H₀15.	There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their range of disability.	Rejected
H₀16.	There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their types of disability.	Rejected

CHAPTER-V

THE FINDINGS AND DISCUSSION

FINDINGS:

The main findings are as follows:

1. When gender of the respondents were considered it was noted that developmentally disabled girls possess more problem behaviours than the developmentally disabled boys
2. Aged developmentally disabled children (13-18 years) possess more problem behaviours than the younger aged developmentally disabled children.
3. When educational standard of the developmentally disabled students were considered it was noted that the developmentally disabled pre-vocational standard children possess more problem behaviours followed by primary and pre-primary standard children respectively.
4. Habitat played no role in deciding the problem behaviours between the developmentally disabled children from rural and urban background.
5. When family structure of the developmentally disabled respondents were considered it was noted that children from nuclear families possess more problem behaviours than the children from joint families.
6. In respect of family income of the parents, developmentally disabled children whose parents possess less monthly income possess more problem behaviours.
7. Parental education is an important criteria. Parents who possess higher educational degree their developmentally disabled children possess less problem behaviours.
8. When only 2nd baby is developmentally disabled they possess more problem behaviours.
9. In respect to age of onset of disability of developmentally disabled respondents it was found that congenitally disabled respondents possess more problem behaviours than the respondents who acquired disability in their later age (in the age 3+ to 6 years).

10. Developmentally disabled children who received early intervention facilities after their detection of disability possess less problem behaviours than those who did not availed any early intervention facilities.

11. Developmentally disabled children whose parents availed any kind of psychological or rehabilitation counselling possess less problem behaviours than the respondents whose parents never availed any kind of counselling facilities.

12. When availability of parental training on parental involvement were considered it was noted that when parents of developmentally disabled possess training, the respondents became habituated in less types of problem behaviours.

13. Developmentally disabled student who received parental support possess more problem behaviours.

14. In respect to availability of community support for the parents of developmentally disabled it was noted that the parents who never received any kind of community support their developmentally disabled children possess less problem behaviours.

15. In respect to range of disability, severely developmentally disabled possess more problem behaviours.

16. Developmentally disabled child having intellectual disability and multi-sensory disability possess more problem behaviours.

DISCUSSION:

Pre-school age children who are identified as developmentally disabled show greater problem behaviours. They also show the deficits of different types of social skills than the children of their age (Merrell and Holland, 1997). School aged developmentally delayed also show significant behaviour problems and social skill problems. Guralnick (1999) found that children with developmental delays engaged in less interactive and more solitary play. This group of children show negative and difficult behaviour when they face any conflict with their peers (Guralnick, Paul-Brown, Groom, Booth, Hammond, Tupper, et. al., 1998). These group of children in most cases cannot achieve success in gaining positive peer relations (Guralnick, Conner, Hammond, Gottman, & Kinnish, 1996). So it is clear that developmentally delayed children possess different types of behaviour problems and a majority among them possess intellectual disability

in association with other types of disability. Naturally cognitive functioning of this group of children also seriously affected. Among these groups of children some typical behaviour problems found are Attention Deficit Hyperactive Disorder (ADHD), anxiety disorder, conduct disorder etc. (Borthwick-Duffy & Eyman, 1990; Jacobson, 1990). Myers (1987) reported that presence of problem behaviours among developmentally disabled children are not uniform in consideration with range of disability. Most of the researchers established that problem behaviours of developmentally disabled are associated with more severe developmental deficits including intellectual disability (Crnic, Hoffman, Gage & Edelbrock, 2004). Children whose functional level is sufficiently low than the non-disabled peers of the same age possess destructive behaviour, over activity, self-injury and sleeping difficulty. On the other hand, some other problem behaviours like temper-tantrum, attention seeking behaviour and physical aggression are not related to the level of functioning. Communication deficits and self-help skill deficits are common among these groups of children. Sex differentiation according to some researchers is not a criteria leading to problem behaviour (Chadwick, Piroth, Walker, Bernard & Taylor, 2000). Crnic et. al. (2004) noted that the developmentally disabled children whose developmental delay is less possess more problem behaviour, though they did not established their findings showing the views of other researchers. In some other studies it was found that intellectually disabled children who possess some specific syndrome show more problem behaviours (Dykens, 2000; Dykens & Hodapp, 1997). Down syndrome baby who are also developmentally disabled showed less severe behaviour problems (Chadwick et. al., 2000) but other problems like ADHD and anxiety disorders are most often found among these group of children.

Emerson (2003) noted that intellectually disabled children possess increased risk for behavioural and psychiatric disorders, which are established in the present study. Children with autism having ADHD and / or intellectual disability also possess severe types of problem behaviours (Bieberich & Morgan, 1998). Most researchers did not studied the syndrome specific behavioural problems observed among developmentally disabled individuals (Eisenhower, Baker & Blacher, 2005), because research on syndrome-specific differences is still in its early stage when considered the types of problem behaviours among developmentally disabled.

Barron and Sandman (1984) noted that severity and frequency of behaviour problems are closely associated with sensory disability which is again established in the present study. Bauras and Drummond (1992) also noted same result as they found that severe intellectually disabled individuals have a higher frequency of behavioural disturbances when compare to mild and moderate intellectually disabled.

Miller (1995) noted that developmentally disabled and intellectually disabled possess several negative behaviours. In the present study also it was found that the samples possess all the different types of problem behaviours which were identified by Achenback and Rescorla (2001).

In the present study the researcher found that developmentally disabled girls possess more problem behaviours than the boys, which is opposite to the findings of Solanki (1993). The present researcher's findings were established by the research on Fragile X Syndrome done by Symons et. al. (2010) where they noticed that the girls with Fragile X Syndrome show more problem behaviours like anxiety disorder, attention disorder and behaviour related to Autism Spectrum Disorder (ASD). So, gender differences were established when problem behaviour of the developmentally disabled specially the Fragile X Syndrome subjects were considered. Same result of gender differences were also proved in the study of Tenneij, Didden and Koot (2011). In the study of Nanda and Tripathi (2015) same result related to the present findings were also established. They also noted that visually impaired girls possess more problem behaviours than the visually impaired boys. Holden and Gitlesen (2005) on the other hand, did not find any significant correlation between specific gender and problem behaviours among intellectually challenged individuals. Gender differences were established in the study of Crocker, et. al. (2006). They found that men show more property destruction and sexual aggressions while female show more self-aggressive behaviour. In the study of Douma, et. al. (2007) it was noted that intellectually disabled boys possess more antisocial behaviours than the intellectually disabled girls. Boys are also more prone to impulsivity. Rubin et. al. (2009) also noted little amount of sex difference among developmentally disabled children when their social withdrawal behaviour was considered.

In the present study the researcher noted that comparatively aged (13-18 years) samples possess more problem behaviours, but in the study of Prakash, Sudarsanan and Prabhu

(2007) the result is totally different, that is younger age group children possess more problem behaviours, on the other hand Mondal and Nanda (2016) found that the sample whose age is 15 or more possess more problem behaviours than the younger children, which admit the result of present study. In the study of Nanda (1999) it was found that the low chronological aged children were more habituated in body rocking behaviour. In the research of Nanda and Mitra (2006) same result of lower chronological age was proved. Therefore, age differences established when problem behaviours of disabled children were considered. On the other hand, in the study of Prakash et. al. (2006) it was found that in respect of age group, no significant difference was established. In the study of Prakash et. al. (2007) it was found that younger age group intellectually disabled children possess more problem behaviours.

In the present study it was noted that anti-social behaviours are very rare among intellectually and developmentally disabled children. The same result was established in the study of Biswas, Chatterjee and Nanda (2011 & 2012), and Nanda and Mondal (2015). Mondal and Nanda (2015) and Deb et. al. (2001) also noted same result. Douma et. al. (2007) found that intellectually disabled boys possess more antisocial behaviours than the intellectually disabled girls. Jolanda et. al. (2007) noted intellectually disabled child having younger chronological age possess more antisocial and delinquent behaviours than their non-disabled peers. They analysed that it may be because parents are more protective towards their intellectually disabled girls than their intellectually disabled boys.

Mondal and Nanda (2015) also noted that temper-tantrum, self-injurious behaviour, odd behaviour etc. are commonly found among developmentally disabled children. The same result is established in the present study also. Destructive and aggressive, repetitive and stereotyped behaviours are commonly found among developmentally disabled children. The same result was established in the study of Mondal and Nanda (2020). A good number of researchers admit the findings of present researcher. They are Crocker et. al. (2006; 2007), Holden and Gitlesen (2005), Deb, et. al. (2001), Lynn et. al. (1997), Bouras and Drummond (1992), Domnick et. al. (2007) and others.

When range of disability were considered it was noted that developmentally disabled who possess mild and moderate category of disability possess more problem behaviours than the severely disabled. Developmentally disabled children mainly

possess temper-tantrum, echolalia, scrambling, inattentive, bed wetting, problem in sleeping, over eating, property destruction, aggressive behaviour and violence etc. Result of the present findings were established in the researches of Barron and Sandman (1984), Kiernan and Moss (1990), Bouras and Drummond (1992), Fee, Matson and Benavidez (1994), Lynn, Bowman, Fisher, Thompson and Cathleen (1997), Dev, Thomas and Bright (2001), Holden and Gitlesen (2003), Holden and Gitlesen (2005), Crocker, et. al. (2006, 2007), Douma, et. al. (2007), Melanson and Fahmie (2023), Nanda (1999), Kishore, Nizamic and Nizamic (2005), Prakash, Sudarsanan and Prabhu (2007), Nanda and Mazumder (2007) and others. Developmentally disabled children having single or multisensory disability show only few behaviour problems which was noticed in the present study. Kiernan and Moss (1990), Biswas, Chatterjee and Nanda (2011 & 2012), Nanda and Mondal (2015) admit the same result. McCarthy (2008) observed that childhood psychopathology is closely associated with severe behaviour disorder among the children with Down Syndrome who are moderate to severely disabled.

Among developmentally disabled children those possess intellectual disability with autism and speech and language disability and those possess multisensory impairment possess more problem behaviours. Samples having intellectual disability with cerebral palsy and speech language problems are also more prone to showing different types of problem behaviours. Researchers established that all the multiple disabled children shows different types of problem behaviours including temper-tantrum, scrambling, destructive behaviour, aggression, self-injurious behaviour, violence, bed wetting and problems in eating behaviours, body rocking, self-stimulatory and attention seeking behaviour (Kiernan & Moss, 1990; Bouras & Deummond, 1992; Lynn, et. al., 1997; Deb et. al., 2001; Crocker et. al., 2006; Holden & Gitlesen, 2005; Crocker et. al., 2007; Nanda & Mazumder, 2007; Biswas et. al., 2011 & 2012; Nanda & Mondal, 2015; Nanda & Tripathi, 2015)

SCOPE FOR FURTHER RESEARCH:

1. It is suggest that this study can be extended on more number of different types of developmentally disabled individuals in different setup that is in the family setup, in the residential home setup and day care setup.

2. Habitat is one of the important factors for origin of problem behaviours. Therefore, problem behaviours can be studied on the basis of habitat of the developmentally disabled individuals.
3. A good number of developmentally disabled individuals are affected from sleep disturbance. So, problem behaviours of developmentally disabled can be studied on the basis of sleep disturbance and normal sleep.
4. Study can be done considering fear and anxiety of developmentally disabled individuals and their relationship with manifestation of different types of problem behaviours.
5. Impact of psychotic drugs upon reducing problem behaviours of individuals with intellectual disability can be studied.
6. Population prevalence of psychopathology among children and adolescence with development disability can be studied.

RECOMMENDATIONS:

According to National Education Policy (2020) all types of disabled children are permitted to take education in mainstreams schools with special types of arrangement and trained teachers. The same was recommended in RPWD Act (2016) and PWD Act (1995). When the concept of all types of disabled will come the school authority could not be able to denied the admission of the disabled children on the basis of their types and range of disability. The developmentally disabled as well as the children with multisensory disabled are habituated in showing different types of problem behaviours, which make them segregated from the non-disabled peers. So, it is the responsibility of the school authority as well as the concern government to provide facilities or parental training, parental counselling, early intervention etc. for the parents of disabled as well as their words. Every school should have a behaviour therapist who will be able to modify the problem behaviours of disabled learners. Otherwise the true concept of inclusion will not get any success. The behaviour therapist is not only responsible to support the disabled learners, but at the same time they will be support the non-disabled learner also. Behaviour therapy will support a student to achieve his or her academic excellence.

CONCLUSION:

Problem behaviours are commonly found among the different types of disabled children. Presence of a disabled child is a burden for the family as well as for the society also. When these children also possess different types of problem behaviours the family feel more burden for them. As the disabled children became habituated in different types of problem behaviours, to some extent due to the negligence of family, particularly the nuclear family and broken family they are unable to learn socially approved behaviours. It means that new learning is affected. On the other hand all the behaviours are learned, and therefore, subject to modification. So if the parents, teachers and society members become aware about the probable causes and remedial techniques of problem behaviours, they will support the learners to show socially approved behaviours by using behaviour modification technique. Therefore, parental training about behaviour problems and their behaviour modification technique as well as parental participation in the education and rehabilitation of the disabled children is essential. School authority and society is not be involved in this endeavour. Further in-depth research is recommended.

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