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

The Thesis Submitted to the Department of Education, Jadavpur University, Kolkata for the award of the Degree of Doctor of Philosophy in Arts

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Dedicated to

My

Parents, my Brother

&

My Princes

DECLARATION

Certified that the Thesis entitled **"RANGE AND TYPES OF PROBLEM BEHAVIOURS OF SCHOOL ENROLLED DEVELOPMENTALLY DISABLED CHILDREN: A STUDY"** submitted by me for the award of the Degree of Doctor of Philosophy in Arts at Jadavpur University, is based upon my work carried out under the supervision of **Professor (Dr.) Bishnupada Nanda,** Department of Education, Jadavpur University and neither this thesis nor any part of it has been submitted before for any degree or diploma anywhere/elsewhere.

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LIST OF ABBREVIATIONS

AAMR	American Association on Mental Retardation
ABC MODEL	Antecedents Behavior Consequences Model
ABCL	Adult Behaviour Checklist
ADHD	Attention-Deficit Hyperactivity Disorder
ASD	Autism Spectrum Disorder
BKT	BinetKamat Test of Intelligence (BKT)
BSID	Bayley Scales of Infant Development-II
CBCL	Child Behavior Checklist
CP	Cerebral Palsy
CRS	Congenital rubella syndrome
DRO	Differential Reinforcement of Other behaviour
HI	Hearing Impaired
ID	Intellectual Disability
NEP	National Education Policy
NIEPID	National Institute for the Empowerment of Persons with Intellectual Disabilities
NIMH	National Institute for the Mentally Handicaped
PWD	Persons With Disabilities
RPWD	Rights of Persons with Disabilities
SPSS	Statistical Package for the Social Sciences
S-R THEORY	Stimulus- Response Theory
VI	Visually Impaired
VSMS	Vineland Social Maturity Scale

CHAPTER I

INTRODUCTION

CHAPTER-I

INTRODUCTION

1.1. 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's model stated that, "formation of conditional reflexes is affected by the structural features of the organism as well as the environmental conditions. Cortical excitation, inhibition, and other changes in brain processes were seen as the central events underline the observed behavioural disturbances under some conditions" (Kanfer, 1972, p.5). Pavlovian experiment established the principle of experimental neurosis upon dog. The true central processes of this experiment were inhibition and excitation (Franks, 1969). 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. On the basis of this experiment, in later period, he theorized that the structural character of the nervous system controlled the degree of response and tolerance for stress. Finally "he proposed different personality types to account for the individual differences among animals in reaction to conflicting stimuli" (Kanfer, 1972, p.5). In the later period Bekhterev (1912, 1923), and Ivanov-Smolensky (1927, 1925) extended the basic classical conditioning paradigm to the realm of psychiatric disorders. Perhaps Watson in USA was influenced by the research of Pavlov and studied all human behaviour in the line of simple conditioning paradigm (Yates, 1970). Watson stresses upon the role of environmental influences upon behaviour of individuals. Therefore, when Pavlov established the concept of neurophysiological basis of behaviour, Watson established 'simplified mechanistic environmentalism'.

In the later period Guthrie, Hull and Tolman accepted the environmentalistic point of view in their experimental psychology and continued to exert strong influences in the

study of learning process in the late 1940s. So, behaviour modification approach became more strong through the developmental learning psychology that were established by Guthrie, Hull and Tolman. Hull and his students established S-R theory (Stimulus-Response Theory) on the basis of expanded version of classical conditioning theory. In this S-R theory, Hull expanded the role of drives, conflicts, habit strength and rewards in the formal hypothetico-diductive theory of learning.

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. Though Skinner started his experiment upon animals in a simple laboratory but gradually he extended to more complex behaviours of humans. Skinner is different in respect of learning approaches of his period, as he emphasize upon response consequences rather than their antecedent stimuli, though he accepted the classical conditioning paradigm also.

Eysenck (1973) in England also attempted to explain the abnormal behaviour of human beings on the basis of personality of the individuals. For establishing his theory he studied indepth the individual differences of individuals. In the later period Wolpe (1958) established 'reciprocal inhibition' which was partially derived from Hull's learning theory and from some general neuropsychological considerations.

In later period behaviour modification methods were established in favour of children with intellectual disabilities in USA by Ellis (1963), Ellis, Barnett and Pryer (1960), Minge and Ball (1967).

Above mentioned researches spread among other researchers to study neurotic patients in counselling centers and modern learning theory gradually established in educational systems in the entire school programmes (Skinner, 1968).

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. Study habits, disruptive classroom behaviours, assertive behaviours etc. are all viewed as changeable behaviours. 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.

1.2. COMMON ELEMENTS OF BEHAVIOUR MODIFICATION METHODS:

Normal or abnormal all the human behaviours are learnt and, therefore, subject to modification. So it is assumed that the abnormal behaviours can be altered by applications of learning principles and there by socially approved behaviours can be established among the individuals. So nature of the problem is not the obstacle for problem behaviour. Rather it is the quality of behaviour which we have to modify. To select a particular stimulus, so that expected responses can be elicited from the client, the behaviour modifier must be sufficiently careful. 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. A good volume of research were published in favour of modification of problem behaviours of children like, disruptive classroom behaviours (Thomas, Becker & Armstrong, 1968; Wolf, Giles & Hall, 1968), self reactions (Davison, 1969), aggressive behaviour or self-injurious behaviour (Lovaas, 1967; Patterson, 1965, 1969), anxiety reduction (Wolpe, 1969) etc.

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.

In behaviour modification technique ABC Model used. In this technique prior to onset of a treatment procedure baseline observations are made to establish the frequency, duration and intensity of the problem behaviours.

In behaviour modification, interview “may occupy a position that varies from peripheral to central in the total programme. As an assessment device, the interview can be used to obtain to specific information about the client’s behaviour pattern,

environmental circumstances, covert behaviour" (Kanfer, 1972, p.26). Interview approach establish a rapport between the client and the child in a 1:1 ratio. It is also helpful for mediating therapeutic agents (mothers, teachers, and so on). Interviewer himself/herself may act as a reinforcing agent through his behaviour and verbal cuing. The ultimate goal of behaviour therapy is to solve a problem situation either in laboratory setup or in traditional clinical setting. The behaviour modification techniques are not used for change of personality structure of the client.

A good number of researchers used environmental manipulation, desensitization and social modeling as the technique in behaviour therapy. In social modeling client can learn new behaviour with no practice or direct reinforcement, just seeing the behaviour of role-model. Social modeling procedure is also used in actual counselling situations. Bandura (1971) demonstrated that the presentation of appropriate modeling experiences can be effective in the following counselling procedures-- a. changing new client behaviours; b. increasing or decreasing well-established behaviours; and c. facilitating the performance of behaviours that seldom occur. Krumboltz and Thoresen (1965) established a new procedure of social modeling. They termed it as 'model-reinforcement counselling'. In this procedure they included the counsellors audio tape recordings of a counselor-client interview in which the model client was verbally reinforced by the model counselor during various decision making behaviours. In this procedure the subject was reinforced verbally by the counselor for verbal responses after listening to the audio tape. Social modeling is applicable to help clients acquire new behaviours or to strengthen the already existing behaviours.

Aversive techniques were also used in behaviour modification. Now a days aversive techniques are not used in behaviour modification or in counselling. If these techniques are employed, use as a last resort for a limited period of time until the client can gain control over his self-injurious behaviours. Among aversive techniques punishment, time-out, response cost procedures, and aversion therapy etc. are used now a days.

1.3. 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.

In the modern days psychologists use the term problem behaviours as ‘abnormal stereotyped behaviour’, ‘mannerisms’, ‘mortality disturbances’, ‘ritualistic acts’, ‘rhythmic habit pattern’, ‘blindness’, ‘autism’ (Berkson & Davenport, 1962). Most of the authors used the term ‘problematic behaviours’ to denote the behaviour problems among people with intellectual disability (Moss, Emerson, Bouras & Holland, 1997). Other authors used terms like ‘challenging behaviours’ (Emerson, 2001), ‘problem behaviours’ (Hemmings, Gravestock, Pickard & Bouras, 2006), ‘behaviour disorders’ (Cooper, 1998; Carvaill & Marston, 2002), ‘maladaptive behaviours’ (Dawson, Matson & Cherry, 1998). Now a days researchers commonly used the term ‘challenging behaviours’. 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, p.3). Emerson (2001) used the term ‘challenging behaviours’ to denote severe behaviour problems. Reid and Ballinger (1995) noticed that “stereotypes, eye avoidance and emotional withdrawal” are commonly observed among severe and profound intellectually disabled. Myrbakk (2008) noted that self-injurious behaviours with head-directed self-injury are common among developmentally disabled and it has long-lusting negative effects. Most of the children with intellectual impairment with or without other disabilities display several types of problem behaviours. The prevalence of challenging/ problem behaviours in young children has appeared to be increasing (Kaiser, Cai, Hancock, & Foster, 2002; Webster-stratton, 2000) and children with developmentally disabled / delayed are more likely to demonstrate these problems than similar- age peers (Biswas, Chatterjee, & Nanda, 2011 & 2012). Biswas et. al. (2011 & 2012) also noted that challenging behaviours were associated with certain syndromes and conditions at the early ages as reported by Eisenhower, Baker and Blacher (2005). 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). In the study of Hill and Furnish (2006) children with autism and children with intellectual disability with and without autism possess severe form of problem

behaviours and associated with more psychiatric problems. 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.

According to American Association with Mental Retardation (AAMR) the maladaptive behaviours present in the children with mental retardation / developmental disabilities can be of 92 types (items) which are divided into10 dimensions-- i. Violent behaviours towards others, ii. Destructive behaviours, iii. Disruptive behaviours, iv. Self-injurious behaviours, v. Repetitive behaviours, vi. Odd behaviours, vii. Anti-social behaviours, viii. Withdrawal behaviours, ix. Rebellious behaviours, and x. Hyperactive behaviours.

Under Violent behaviours AAMR included 12 items. Under Destructive behaviours AAMR included 6 items, 10 items were included under the dimension Disruptive behaviours, 10 items under Self-injurious behaviours, Repetitive/ Stereotyped behaviours included 11 items, 12 items were included under Odd behaviours, under Anti-social behaviours 8 items and under Withdrawal behaviours 9 items were included. Under Rebellious behaviours 9 items and under Hyperactive behaviours 5 items were included.

National Institute for the Mentally Handicapped / NIMH (presently NIEPID), Secundrabad developed Behavioural Assessment Scale for Indian Children with Mental Retardation (BASIC - MR) Part-B. This scale was developed by Reeta Peshawaria and S. Venkatesan (1992). They included domains like Violent and Destructive behaviour (which included 16 items), Temper-tantrums (which included 4 items), Misbehaves with others (which included 7 items), Self-injurious behaviours (which included 10items), Repetitive behaviours (which included 8 items), Odd behaviours (which included 8 items), Hyperactivity (which included 3 items), Rebellious behaviours (which included 6 items), Anti-social behaviours (which included 9 items), and Fears (which included 4 items). Therefore, in the Behavioural Assessment Scale for Indian Children with Mental Retardation (BASIC-MR) Part-B, total 75 items were included to describe different problem behaviours under 10 specific domain.

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. Baumeister (1978) also noted that these behaviours are commonly found among developmentally delayed children.

Behaviour problems in children can be classified into two major domains of dysfunctions, mainly externalizing or under controlled behaviours and internalizing or over controlled behaviours (Achenback & Edelbrock, 1978). The externalizing behaviours are marked by deviance, impulsivity, hyper-activity, aggression and anti-social features. The internalizing behaviours are evidenced by withdrawal, dysphoria and anxiety. The problem behaviours have been found to be associated with low intelligence (Berkson & Davenport, 1962; Guess, 1966), younger chronological ages (Kravitz & Boehm, 1971; Mitchell & Etches, 1977; Thelen, 1979), institutionalization (Kanffman, 1967) etc.

Children with cerebral palsy and autism and other children with developmentally delayed exhibits the highest level of behaviour problems (Eisenhower, Baker, & Blacher, 2005). Problem behaviours reaches a pick during the age of 15-34 years and then declines (Chukkali & Pal, 2004). On the other hand some problem behaviours like temper tantrums, repetitive behaviours and restlessness typically declined with age (Peshawaria, et. al., 2000). Among male developmentally disabled disobedience is pre-dominant followed by physical harm to others. In case of girls these two behaviours are very rare. Boys and male developmentally disabled showed more aggressive behaviour, property destruction and self-injury (Chukkali & Pal, 2004). Severely developmentally delayed possess more self-injurious behaviours, particularly whose mobility is impaired. Problem behaviours are more likely to be seen among developmentally disabled having visual or hearing or both problems including intellectual disability (Maisto & Baumeister, 1978).

1.4. PROBLEM BEHAVIOURS OF DEVELOPMENTALLY DISABLED CHILDREN AND RELATED VARIABLES:

Some researchers became interested to study the relationship between problem behaviours and developmental delays of child. Guralnick (1999) proposed that childrens cognitive functioning and manifestation of behaviour problems are associated. On the other hand Campbell (2002) speculated that family factors have been associated with challenging behaviours manifested by developmentally disabled child. Developmentally delayed children also devoid self-regulatory skills which are essential for maintaining socially appropriate behaviour (Bakeri, McIntyre, Blacher, Cricrnick, Edelbrock & Low, 2003; Wilson, 1999).

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). Schneidr, Harknett and McLanaha (2016) noticed that during periods of unemployment, particularly during pandemic situation, for guardian figures within a family, abusive behaviours upon women and children showed a marked increased. Nanda (2022) also explained that financial crisis affects male identities, in term increasing violence against women and children because through display of violence, male members of the family can reassert their masculine identity and thereby resolved some of the tension born out of their financial difficulties. Nanda (2022) reported that during pandemic situation violence and abusement against disabled in the family increased because of economic insecurity and poverty.

Poverty is regarded as an important factor in the development of behaviour problems among children without developmental delays (Dodge, Pettit & Bates, 1994; McLeod & Shanaham, 1996; Raadal, Milgrom, Cauce & Mancal, 1994). Relationship between poverty and problem behaviours of children with developmental disability has not been studied frequently. Mitchell and Hauser-Cram (2009) studied among poor developmentally disabled children. But they did not noticed any significant level of problem behaviours among developmentally disabled children. 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. In the study of Lecavalier, Leone and Wiltz (2006) and Bakeri, McIntyre, Blacher, Crnick, Edelbrock and Low (2003) it was proved that parental stress have positive relationship with behaviour problems of autistic children and children with developmental disability. In the study of Bruce, Bakeri, Keith, and Craig (2002) it was noted that child behaviour problems are much stronger contributors to parenting stress than the childs cognitive delay.

In the study of Biswas, Chatterjee, and Nanda (2011 & 2012) it was reported that, problem behaviours are more common among developmentally disabled children having single parent than the two parents family. According to these researchers single parent may be less effective in their parenting because of absence of support from other significant partners. Single parent did not get any emotional support and respite care from his / her family members and, therefore, live in a more stressful situation. Single parenting and violence have been co-related with increase of behaviour problem among children (Javo, Ronning, Heyerdahl & Rudmin, 2004; Purugganan, Stein, Silver & Beneson, 2003).

Childrens aggressive behaviour and disrupted family relationship is closely related (McHale & Rasmussen, 1998). Family climate is also responsible for development of problem behaviours among developmentally disabled children. Child self-regulation affected due to poor family regulations causing problem behaviours among developmentally disabled children (Cox & Paley, 2003; Minuchin, 2002). 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. Stressful life events and family climate are also important factors for developing problem behaviours among developmentally disabled children. Parental loss of income, going into debt, death of close family member, death of a close friend, marital separation, legal problems, divorce, alcohol or drug consumption by the family members are some of the important factors in developing different types and ranges of problem behaviours among developmentally delayed children. Problem behaviours of

disabled children are also closely associated with parental stress as well as the stress of young child (Esbensen & Benson, 2006; Dekker & Koot, 2003).

Chacko (1999) studied the prevalence rate of problem behaviours taking data from pediatric out patient department of hospitals and noticed that 50% of children having psychiatric problems possess different types of problem behaviours. In Pakistan Syed, Abdul and Mahamud (2007) found prevalence rate of problem behaviours from 9.3% to 33% with antisocial problems and conduct problems among youth. In both the developed and developing countries 10 to 26% of children possess behaviour problems and a single child can have a range of different problems (Iloeje, 1992; Abiodun, 1993; Aronu & Ojinnaka, 2009). The manifestation of problem behaviours prevalence rate varies widely depending upon geographical location, culture, family characteristics and socio-economic setting (Iloeje, 1992; Abolfotouh, 1997). Different types of problem behaviours having different ranges were found among the Congenital Rubella Syndrome (CRS) Subjects, as they are unable to maintain a good rapport to their mother / parents and peers (Nanda, 1998). Among children with Congenital Rubella Syndrome Subjects (CRS) autistic behaviour and cataract in both the eyes are common as noted by several researchers from India and abroad (Nanda, 1998; Chess, Korn & Fernandez, 1971; Chess, 1977; Van Dijk, 1982). Temper-tantrum behaviour is also common among Congenital Rubella Syndrome (CRS) Subjects (Chess, Fernande-z, Cohen & Schalk, 1984). Congenital Rubella Syndrome (CRS) Subjects show more aggressive, destructive, self-injurious and stereotyped behaviours (VanDijk, 1982). In the study of Nanda and Mazumder (2007) it was noted that most of the intellectually challenged children did not show any kind of violent behaviours towards others. In an another study Nanda and Mitra (2006) studied 60 special school enrolled autistic children and found that they possess different types of problem behaviours except behaviours like masturbation, odd behaviour, stealing and telling a lie. Study of problem behaviours of deaf-blind children is not common in both the developed and developing countries. Nanda and Mondal (2015) studied on 20 deaf- blind children and noticed that they possess all types of problem behaviours. Rai, Malik and Sharma (1993) studied behaviour problems among Delhi based pre-school children and noticed that 22% of them possess behaviour problems.

1.5. PREVALENCE OF BEHAVIOUR PROBLEMS AMONG DEVELOPMENTALLY DISABLED CHILDREN:

A good number of research were held by different psychologists to study the prevalence of behaviour problems among developmentally disabled children in the different countries by using different types of standardize scales. 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. They also found 448 adult intellectually disabled who have severe behaviour problems. 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 Wales challenging behaviours of people were studied by Lowe, Allen, Jones, Brophy, Moore and James (2007). They found that 45 people per one lakh total population possess challenging behaviour.

According to Emerson and Bromley (1995) self-injurious behaviour is less among mild intellectually disabled and it is more among severely intellectually disabled. 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).

Qureshi and Alborz (1992) noticed that 23% adults having problem behaviours possess physical attack behaviour to others. They also noted that 52% such adults possess socially or sexually unacceptable behaviour, 16% destructive behaviour and 17% showed self-injurious behaviour. Severe self-injurious and destructive behaviours were noted for children and adults having developmental disabilities in the study of Lowe, et. al. (2007). Researchers found that environment disrupting behaviour, aggressiveness (Crockr,Mercier, Lachapelle, Brunet, Morin & Roy, 2007; Holden & Gitlesen, 2005; Tyrer, McGrother, Thorp, Donaldson, Bhaumik, Watson & Hollin, 2006) and

behaviours attacking to others (Holden & Gitlesen, 2005) and aggressive behaviours causing serious injury to others (Emerson, 2001) are most problematic behaviours shown by developmentally disabled children and others.

1.6. 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). Emerson & Bromley (1995) found that severity of intellectual and / or other disability is associated with physical aggression, self-injury and stereotype than individual with mild / moderate developmentally disabled. McClintock, Hall and Oliver (2003) and Collacott, Cooper, Brandford and McCrother (1998) are also in favour of report given by Emerson and Bromly (1995).

Gender is also important factor associated with problem behaviours of intellectually and developmentally disabled children and youth. Tyrer, McGrother, Thorp, Donaldson, Bhaumik, Watson and 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 Syndorme (Anderson & Ernst, 1994), Cornelia de Lange and Fragile-X Syndrome (Harris, 1992).

Self-injurious behaviours are associated with different types of genetic syndromes, though the specific causal relationships between genetic syndrome and self-injury are not clear yet (Deb et. al. 2001).

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. Persons affected from severe traumatic life events show aggressive / destructive behaviour, though the causal relations are not clear yet (Owen, Hastings, Noone, Chinn, Harman, Roberts & Taylor, 2004).

Age is also closely associated as a factor for problem behaviours among developmentally disabled children (Campbell, Shaw & Gilliom, 2000; Hindshaw, 1992). Disabled children show more problem behaviours, social and peer problems, conduct problems and oppositional behaviours, ADHD than the non-disabled children in the same age group (Baker, McIntyre, Blacher, Crinic, Edlbrock, & Low, 2003; Emerson & Einfeld, 2010; Landa, Gross, Stuart & Faherty, 2013). Einfeld and Tongue (1995, 1996) studied on population prevalence of psychopathology of children with intellectual disability and noted that these groups of children possess different types of problem behaviours which is age specific. Einfeld, Tongue and Rees (2001) studied on the behavioural and emotional problems of William syndrome.

Feldman and Griffphs (1997) studied on the behaviour problems of children with severe developmental disability. They noted that variety of reasons like limited appropriate cognitive, communicative and social and problem solving skills are associated with problem behaviours.

Schirm, Tobi, Zito and Berg (2001) studied on the effects of psychotropic drugs on managing the problem behaviours of developmentally disable children. They noted that gender, age and leaving situations are the probable factors associated with problem behaviours of developmentally disabled individuals. Dekker, Koot, Van-der Ende and Verhulst (2002) and Dekker and Koot (2003) studied emotional and behavioural problems among children with and without intellectual disability. These researchers also noted that gender and age of the disabled children as well as the family environment of these group of children are closely associated with their emotional and behavioural problems.

Hill and Bruinks (1984) studied on maladaptive behaviour of intellectually and developmentally disabled individuals living in residential facilities. They noted that intellectually disabled individuals of different ranges and related disabilities possess problem behaviours like aggressive behaviours, destructive behaviours self-injurious behaviours etc. They also noted that those intellectually disabled individuals who has long institutional histories exhibit more violent types of problem behaviours. It may be because these group of children devoid of love and affection from their parents and other family members which makes them more and more aggressive, violent and destructive.

The causative factor for achieving problem behaviours by developmentally disabled children in their early ages are parental stress, lack of supportive and enriching experiences in the home, and lack of early intervention training. Particularly in the rural area as well as among the poor families parents neither aware about causative factors of disability, they have no training about nurturing disabled child as well as how they can involve with their disabled child. In most cases their parenting style is also not adequate. Less favourable family climates of disabled and non-disabled children also are the causative factors of problem behaviours among 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. Gath and Gumley (1984, 1986) also studied on behaviour problems of children with down syndrome with special reference to their family follow up. Melolascino (1965, 1967) studied on behaviour problems and other psychiatric aspect of institutionalized down syndrome (mongoloids). Myers and Pueschel (1991) also studied different types of psychiatric disorders present among the persons with down syndrome. The individuals with down syndrome possess mild to moderate range of intellectual disability. They also possess other types of sensory disorders like the problems related to vision, hearing and speech. Some physical problems in the bone morphology is also associated with the down syndrome individuals. Their development is retarded in respect to their physical, intellectual, communication etc.

1.7. 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). Eisenhower et. al. (2005) also reported that challenging behaviours are more common among children with developmentally disabled, autism, cerebral palsy, ADHD, multiple disabled and multi-sensory impaired. Multi-sensory impaired children with developmental disability shows more problem behaviours than other types of challenged learners (Maisto & Baumeister, 1978).

In a good volume of research, since 1962 or even earlier, it was established that problem behaviours appears to be universal among developmentally disabled infants

(Baumeister & Forehand, 1973; Berkson, 1967; Mitchell & Etches, 1977; Berkson & Davenport, 1962; Lovaas et. al., 1965; Kravitz & Boehm, 1971) but it maintains and elaborates among the children with intellectually impaired and children with autistic like features (Nanda, 1998). The problem behaviours have been found to be associated with low intelligence (Berkson & Davenport, 1962; Guess, 1966), younger chronological ages (Kravitz & Boehm, 1971; Mitchell & Etches, 1977; Thelen, 1979), institutionalization (Dennis & Najarian, 1957; Kaufman, 1967) etc.

Some problem behaviours are gender specific that is more among boys than the girls and vice-versa (Greeny et.al., 1973; Schultz et.al., 1974; Moss, 1974; Rutter, 1977; Gold & Petronia, 1980; Moore & Arthur, 1983; Coie, Disse & Copptelli, 1982; Barkley, 1988; Weine et.al., 1995). It may vary according to the age of the children (MC Farlane et.al., 1994; Werry & Quay, 1971; Achenback & Edelbrock, 1981; Adams et.al., 1995; Lambart et.al., 1996). In the study of Emerson et.al. (2001b) it was noted that males are more affected but in the study of Deb et.al. (2001) it was reported that female gender was significantly associated with behavioural disorders, particularly self-injurious behaviours. Callacott et. al. (1998) on the other hand reported that no such association exists. In a good volume of research work it was established that males possess higher level of physical aggression than the female (Borthwick-Duffy, 1994; Davison, 1969; Emerson et.al., 2001b; McClintock et.al., 2003). Therefore, the association between gender and problem behaviours may thus depends on the type of problem behaviours under consideration.

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 (Lovaas, 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). The cause of aggression may be to seek attention of others according to Eichel (1978) or deficits in social skills as established by Goldstein (1988) and Kauffman (1992). Developmentally disabled children who have severe or profound disability, they show hyperactive behaviours (Nanda& Mitra, 2006). Barkson and Davenport (1962) noted that hyperactive behaviours are self-

stimulatory in character. Body-rocking is the most common type of self-stimulatory stereotyped behaviour (Schwartz, Gallagher & Berkson, 1986). In the study of Lovaas, Newsom and Hickman (1987), Koegel and Covert (1972) it was reported that self-stimulatory stereotyped behaviour interfere with the previously learned behaviours as well as it also has a blocking effect on the acquisition of new behaviours.

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). Variety of etiologies are their regarding self-injurious behaviours. Some neurobiological factors are also associated with self-injurious behaviours (Sandman, 1988; Sandman et.al., 1990a; Sandman et.al., 1991). Self-injurious behaviours also can be controlled by using some psychopharmacological therapy that have actions in this neurochemical system (Sandman, et.al., 1993; Schroeder et.al., 1991). Mace and Mauk (1995) on the other hand found that bio-behavioural diagnosis and treatment has effect on different sub-types of self-injurious behaviours. Emerson et. al. (2001b) reported that in United Kingdom self-injurious behaviours were highly persisted for more than seven years in 95 developmentally disabled samples. Murphy et. al. (1999) noted that, "Very little is known about the early stages of self-injurious behaviour in young children with developmental disabilities....." (p.149). According to them the primary teachers can early identify self-injurious behaviours among developmentally disabled children. Dunlop et. al. (1994) reported that exact cause and age of starting a problem behaviour among intellectually challenged is little-known. Green et. al. (2005) wrote that, "if early and less serious aberrant behaviours can be identified in at-risk preschool children, then treatment can begin before these aberrant behaviours become more severe and firmly established. This in turn may improve treatment outcomes and may even help to prevent early and mild forms of aberrant behaviours from developing into more entrenched and serious challenging behaviours".

Destructive behaviours are also common among developmentally challenged children. 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 (Luiselli, 1986; Mace & Mauk,

1995). Researchers established that biological treatment approach with environmental manipulation may interact and change the neurobiological mechanism to alter destructive behaviours (Schaal & Hackenberg, 1994; Thompson, Egli, Symons & Delaney, 1994). Psychotropic drugs has effect in the treatment of problem behaviours of intellectually disabled (Emerson et.al., 2001b), as well as some drugs can alleviate certain behavioural and emotional disturbances among developmentally disabled children (Reiss & Aman, 1998). Some researchers found the significant risk or side effects in using the drugs, particularly in the absence of diagnostic precision (Brylewsky & Duggan, 1999). Now a days many studies confirm that the psychopharmacological management of challenging behaviour is quiet spread (Deb, Thomas & Bright, 2001; Emerson, Kiernan, Alborz, Reeves, Mason, Swarbrick, Mason, & Hatton, 2001b; Kiernan et. al. 1995; Molyneux, Emerson, & Caine, 1999; Robertson, Emerson, Gregory, Hatton, Kessissoglou, & Hallam, 2000). In USA, UK and Australia, neuroleptics (major tranquilizers, antipsychotics) are used in spite of its side effects (Smith, Banford, Collacott, Cooper, & McGrother, 1996; Robartson et.al., 2000; Sachdev, 1991).

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.

1.8. 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"**

1. 9. 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.

1.10. HYPOTHESES:

$H_0$1. There is no significant median difference between developmentally disabled boys and girls on the basis of their problem behaviours.

$H_0$2. There is no significant median difference between developmentally disabled different age groups children on the basis of their problem behaviours.

$H_0$3. There is no significant relationship between problem behaviours of developmentally disabled children and their educational standard.

$H_0$4. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their habitat.

$H_0$5. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their family structure.

$H_0$6. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their family incomes.

$H_0$7. There is no significant relationship between problem behaviours of developmentally disabled children and their parental education.

$H_0$8. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their birth order.

$H_0$9. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their age of onset of disability.

$H_0$10. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of early intervention facilities.

$H_0$11. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of parental counselling.

$H_0$12. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of training on parental involvement.

$H_0$13. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of parental support.

$H_0$14. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of community support.

$H_0$15. There is no significant relationship between problem behaviours of developmentally disabled children and their range of disability.

$H_0$16. There is no significant relationship between problem behaviours of developmentally disabled children and their types of disability.

1.11. DEFINITIONS OF THE TECHNICAL TERM USED:

PROBLEM BEHAVIOUR:

Problem behaviours are also termed by psychologists as abnormal stereotyped behaviour, pathological behaviour, mannerisms, mortality disturbances, ritualistic acts, rhythmic habit pattern etc. Children who are congenitally disabled or who acquired disability in their early or later age are unable to draw sufficient stimulation from the external environment. Therefore, they engaged themselves in self-injurious, self-stimulatory, aggressive, destructive or ritualistic behaviours etc., which makes them isolated not only from the community and family but it creates some serious problems in their rearing practices. These behaviours are termed as 'Problem Behaviour'.

DEVELOPMENTALLY DISABLED:

Bijou (1966, 1968) first used the term developmental disability instead of using the term ' Retardation'. According to Bijou retarded can be termed as developmentally disabled because they possess only a limited behaviour repertories. The developmental

milestones of this group of childrens are delayed specially in the areas like- speech and language, mobility, learning, self-help and independent living. For this group of children all areas of development is retarded. Developmental disability of a baby manifested during infancy or childhood in one or multiple domains including cognition, motor performance, vision, speech and hearing and behaviour etc. Developmental disability is the broad term used to describe a range of conditions like- intellectual disability, autism, cerebral palsy, Attention Deficit Hyperactive Disorder, fetal alcohol syndrome, fragile X syndrome, down syndrome etc. Sometimes associated with vision, hearing and speech problem.

1.12. DELIMITATIONS OF THE STUDY:

The present study was delimited to the following:

- The investigator collects data only from special school enrolled developmentally disabled children.
- The data were collected by using only one standardized questionnaire and list of demographic variables.
- The variables of the study were delimited to demographic variables like- gender, age, educational standard, habitat, family structure, family income of the parents, parental education, birth order, age of onset of disability, availability of early intervention facilities, availability of parental counselling, availability of parental training, availability of parental support, availability of community support, range of disability, types of developmental disability.
- The investigator used purposive sampling technique for selection of the samples.

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CHAPTER II

REVIEW OF RELATED LITERATURE

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REVIEW OF RELATED LITERATURE

2.1. CONCEPT OF REVIEW OF RELATED LITERATURE:

A survey of related literature is required in educational including all other research in order to perform a study. These seek to situate the current study in both a temporal and theoretical framework. The intellectual support for the investigator is provided through a review of related literature. While reviewing all of the big studies from the past, the researcher is looking for any studies that may be related to the current investigation. It is ideal to review any material that is directly or indirectly linked to the current subject.

2.2. NEED OF REVIEWING RELATED LITERATURE:

The review of related literature includes reviewing relevant research reports and papers, published research journals, and so on. The current researcher has to know what has been said and done in a certain area. The current investigator gathers numerous useful ideas regarding study designs, methods, research subjects, acceptable measuring tools and techniques, research procedure, and the outline for future research from prior studies. It gives the current investigator with researchable ideas, establishing and understanding the topic, valuable explanatory skills, objectives, hypotheses, and report writing technique. It prepares investigators by informing them about previously ignored options. It also recommends an acceptable process for interpreting the results. The goal of the review of related literature is to analyse logical reasoning and give empirical data regarding the current inquiry.

2.3. REVIEW OF WESTERN RESEARCH LITERATURES:

Barron, J.L., and Sandman, C.A. (1984) studied on the "Relationship between demographic variables and problem behaviours of centre-based intellectually disabled children". They studied those intellectually disabled children who possess both Self-injurious Behaviour (SIB) and stereotype, only stereotype, only self-injurious behaviour etc. Researchers analysed the collected data by using multi-variet technique. They noted that 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. From their study they suggested that self-injurious behaviour and stereotyped behaviour of intellectually disabled children can be classify as stereotype self-injurious behaviour and withdrawal stereotypey. They also clearly demonstrated that present procedure of behavioural treatment in such cases may not be appropriate. They also favour for a new diagnostic classification and alternative form of treatment.

Kiernan, C., and Moss, S. (1990) studied on "Behaviour disorder and other characteristics of the population of a mental handicap hospital". A total of 981 individuals were residing at Calderstones hospital, consisting of 596 men and 385 women. All of these individuals had intellectual challenges, with some having additional impairments. Specifically, 70 people were blind, 68 were deaf, and 25% of the population had physical handicaps.

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.

The research findings also indicated the following:

A. out of 37 respondents, 24 parents exhibited high levels of anxiety, while 24 parents displayed signs of depression.

B. Mothers displayed more anxiety, depression, and distress compared to fathers, although the mean difference between mothers and fathers was not statistically significant.

C. Parents in the younger age group (22-31 years) experienced higher levels of anxiety, depression, and distress.

D. Parents of Islamic faith demonstrated higher levels of anxiety, depression, and distress than Hindu parents.

E. Parents from rural areas exhibited higher levels of anxiety, depression, and distress.

F. Illiterate parents were more affected by anxiety, depression, and distress.

G. Parents employed in the service sector had higher levels of anxiety, while daily laborer parents were more affected by depression and distress.

H. Parents with only one child exhibited higher levels of anxiety, depression, and distress.

I. Parents of visually impaired children with intellectual challenges and cerebral palsy were more affected by anxiety, depression, and distress than parents of visually impaired children with only one of these conditions.

J. The most frequently observed maladaptive behaviours among multiply challenged students included soiling themselves, pulling objects around them, head nodding, continuous body waving, sitting idly, laughing to themselves, refusing to adhere to regular routines, body rocking, and not allowing others to engage in their activities.

Bouras, N., and Drummond, C. (1992) conducted a study on "Behaviour and psychiatric disorder of people with mentally handicaps living in the community". In this study, a total of 318 individuals with mental handicaps living in the community were examined. The primary objective of the research was to investigate the behaviour and psychiatric disorders among these individuals.

Out of the 318 participants, 190 were men, and 128 were women, with an average age of 33.2 years. Psychiatric diagnoses were conducted using the Clinical Psychopathology Mental Handicap Rating Scale, and the researchers also developed a Behaviour Problem Rating Scale for assessment.

The study's findings revealed that among those with psychiatric disorders, schizophrenic/paranoid disorders were the most common, affecting 39 individuals (12.3%). Additionally, 22 individuals (6.9%) were diagnosed with personality disorders, another 22 (6.9%) with adjustment disorders, and 21 (6.6%) with depressive disorders. Anxiety disorders were observed in 21 individuals (6.6%) as well.

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. Additionally, 31 individuals showed

sexually inappropriate behaviour. In terms of gender differences, it was found that women exhibited self-injurious behaviours more frequently than men. However, antisocial and socially inappropriate behaviours were more common among men.

Furthermore, the study revealed that individuals with severe mental handicaps experienced a higher frequency of behavioural disturbances compared to those with mild and moderate mental handicaps.

Dave, P.U., Chauvan, V., and Dalvi, J. (1993) noted that intellectually disabled children possess a slower rate of learning comparable to the same age non-disabled individuals. 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 adjust with their nearest family members, primary care givers and their peers.

Fee, V. E., Matson, J.L., and Benavidez, D.A. (1994) studied on, "Attention deficit hyperactivity disorder among mentally retarded children". The study focused on a sample of 100 boys, all aged between 2 and 5 years. These boys were categorized into four distinct groups:

a. A group with mental retardation (n=25)

b. A group with mental retardation and Attention Deficit Hyperactivity Disorder (ADHD) (n=25)

c. A group with ADHD but normal IQ (n=25)

d. A normal control group (n=25).

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.

To assess ADHD symptoms within the sample, the researchers utilized the Conners' Teacher Rating Scale-39 (CTRS-39) and the Abikoff Observation System. 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., and May, R. (1994) studied "Fears in mental retardation: part two prevalence of fears reported by mentally retarded and non-mentally retarded adults". The study involved the examination of 30 individuals with intellectual disabilities (14 women and 16 men) and 30 intellectually typical individuals (16 women and 14 men). The average age for those with intellectual disabilities was 42.4 years, while it was 41.13 years for those without intellectual disabilities. The primary objective of this research was to compare the levels of fear between the two groups, individuals with intellectual disabilities (MR) and those without (NMR).

To assess fear, the researchers employed an adapted version of the Fear Survey Schedule III. They categorized the fear items into five distinct types: Social rejection (SR), agoraphobia (Ag), fear related to bodily harm (TD), fear related to sex and aggression (SA), and fear of animals (An).

The findings indicated that individuals with intellectual disabilities demonstrated higher levels of fear compared to those without intellectual disabilities. 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).

Conversely, the intellectually normal group exhibited only a limited range of social rejection (SR) like fears, such as the fear of speaking in public, the fear of failure, concerns about not being liked by people in authority, and the fear of appearing foolish.

In summary, the study's primary focus was to compare fear levels between intellectually disabled and intellectually normal individuals. The results revealed heightened levels of fear among those with intellectual disabilities, with specific fears being more prevalent in this group compared to those without intellectual disabilities.

Miller, A.A.N. (1955) conducted a study on "Modifying the Antisocial Behaviour of Mentally Retarded Children". The researcher conducted a study involving 35 mentally challenged children, aged between 12 and 15 years. Out of these 35 children, 12 were girls, and 23 were boys. The primary objective was to address and amend the antisocial behaviours exhibited by these children. Data for the study was collected from their special class teacher, who had observed them over a two-year period.

Miller, noted 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.

The specific procedures employed by the researcher included:

Accepting the Child: The researcher and educators involved in the study embraced and acknowledged each child's individuality and challenges.

Substituting Success for Failure: Efforts were made to replace instances of failure with opportunities for success, fostering a positive learning environment.

Understanding Each Child: The researcher took the time to understand the unique needs and characteristics of each child, tailoring interventions accordingly.

Creating the Right Classroom Atmosphere: Modifications were made to the classroom environment to ensure it was conducive to the children's learning and emotional well-being.

Educational Procedures: The educational approach included scheduling classes effectively, providing a curriculum suited to the children's needs, and organizing group activities to facilitate learning and social development.

In summary, the study aimed to address antisocial behaviours in mentally challenged children through a structured approach that emphasized individualized support, positive

reinforcement, and an appropriate learning environment. Miller's efforts resulted in positive outcomes for these children.

Lynn, G., Bowman, W. W., Fisher, R. H., Thompson, and Cathleen C. P. (1997) studied on, “On the relation of minds and the function of destructive behaviour”. When traditional methods of analyzing behavioural issues in children with conversational speech fail to yield clear results, investigating the child's requests for reinforcement, known as "minds," can help pinpoint the underlying causes of destructive behaviour. In a recent study, two children displaying self-injury, aggression, and property destruction exhibited similar behaviours across different experimental conditions during functional analyses. To gain further insight, researchers conducted an assessment using the children's mending behaviour.

In this assessment, a multielement design was employed, where the therapist's response to the child's mending occurred either after a fixed number of requests (FR 1 schedule) or in response to destructive behaviour. Notably, 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.

Building on these findings, 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). For one of the children, compliance with mending was discontinued when destructive behaviour emerged (referred to as functional communication training plus response cost). In both cases, there was a substantial decrease in the rates of destructive behaviour.

In summary, the results suggest that examining a child's mending behaviour can be a valuable approach when traditional functional analyses do not provide conclusive insights into the reasons behind destructive behaviour.

Julie, E., Mcentee, and Richard, R. S. (1997) studied on, “A response-restriction analysis of stereotypy in adolescents with mental retardation: implications for applied behaviour analysis”. In this study, the behaviour of four adolescents with severe or profound mental retardation was examined during unstructured leisure activities. The

researchers observed four types of behaviours: functional engagement with materials, stereotypic engagement with materials, stereotypy without interaction with materials, and other aberrant behaviours. These observations were made in the presence of different sets of materials.

The study employed a series of experimental conditions in which the number of material sets available for manipulation was systematically reduced. This reduction aimed to investigate how the adolescents' behaviours would change as they had access to fewer material sets. In the final condition, all four sets of materials were reintroduced, allowing the researchers to examine the effects of this change.

The research design was influenced by Green and Striefel's (1988) study, which also explored how individuals with autism engaged with different materials and activities.

Overall, the findings of this experiment were consistent with those of Green and Striefel. It was observed that the reallocation of behaviour (meaning how the adolescents chose to engage with materials and activities) was idiosyncratic and unpredictable as sets of materials were removed or reintroduced.

However, the study provided valuable insights into how behaviours might be reallocated if they were restricted through behavioural interventions rather than through limiting access to materials. This suggests that response-restriction analyses could be useful in identifying specific behavioural patterns, such as stereotypic behaviours. These patterns could then be targeted in differential reinforcement contingencies to reduce or modify stereotypic behaviour. Additionally, the study highlighted the importance of selecting and arranging environmental stimuli in a way that minimizes the presence of triggers for stereotypy.

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.

Shirlely, M.J., Iwata, B.A., and Kahng, SW (1999) studied on “False positive maintenance of self-injurious behaviour by access to tangible reinforcers”. Authors from review of related literatures found that a single source of reinforcement is not always applicable in modifying a problem behaviour. Researchers studied a

developmentally disabled women who possess hand mouthing behaviour. They assess the client and revealed high rates of hand mouthing related with aloneness of the developmentally disabled subject. They noted that sensory stimulation and access to a leisure time is helpful to modify the hand mouthing behaviour of developmentally disabled subject. The purpose of the study was to know whether self-injurious behaviour are maintained by multiple reinforcers. The subject was a 26 years old women with severe intellectual 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 in 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, and Christina, M. V. (2000) studied on, "Variable-time reinforcement schedules in the treatment of socially maintained problem behaviour". The study aimed to compare the impact of VT and FT reinforcement schedules in managing problem behaviour maintained by positive reinforcement. Noncontingent reinforcement (NCR) is a behaviour management approach that involves providing reinforcement on a time-based schedule, regardless of the individual's behaviour or responses. Most studies assessing the effectiveness of NCR in addressing problem behaviour have typically utilized fixed-time (FT) schedules of reinforcement. However, in this particular study, the researchers sought to evaluate the efficacy of NCR when using variable-time (VT) schedules.

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., and Rees, V.W. (2001) studied on emotional and behavioural problems of young people with 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., and Bright, C. (2001) studied on, **"**Mental disorder in adults with intellectual disability. 2: the rate of behaviour disorder among a community-based population aged between 16 and 64 years". 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). Additionally, the researchers aimed to investigate various risk factors and their potential associations with challenging behaviours.

For the study, a total of 101 individuals with intellectual disabilities, ranging in age from 16 to 64 years, were included. This group consisted of 51 men and 50 women. To evaluate different types of behaviour disorders, both the subjects and their caregivers were interviewed, and 13 distinct problematic behaviours were assessed using the Disability Assessment Schedule (DAS).

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.

When examining the risk factors associated with severe behaviour disorders, the study found significant associations with female gender, the presence of epilepsy, participation in day activities, and the severity of intellectual disability.

Sungwoo, K., Jonathon, T., and Arthur, E. W. (2001) studied on, "Use of a multicomponent treatment for food refusal" . 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. The treatment strategy involved several elements:

Access to Highly Preferred Tangible Items: The child was given access to items he highly preferred as positive reinforcement. These items were contingent upon his cooperation with mealtime expectations.

Removal of Preferred Items: The preferred items were taken away when the child displayed problem behaviour or refused to accept a bite of food. This served as a consequence for non-compliance.

Differential Reinforcement of Alternative Behaviour: The child was positively reinforced for engaging in alternative behaviours that were desirable and compatible with mealtime expectations.

The results of this treatment approach were promising. The child's food acceptance increased to 100%, meaning he accepted every bite offered to him, and problem behaviour decreased significantly, approaching near-zero levels. Additionally, the child's caregivers were effectively trained to implement the treatment, suggesting that the intervention was not only successful in the short term but also sustainable when carried out by those responsible for the child's care.

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., and Gitlesen, J.P. (2003) studied on "Prevalence of psychiatric symptoms in adults with mental retardation and challenging behaviour". The study aimed to investigate the relationship between psychiatric symptoms and various types of challenging behaviours in adults with intellectual disabilities. The final sample for this study consisted of 154 participants, all of whom were 18 years of age or older.

The researchers divided the entire sample into two distinct groups: the challenging behaviour group, comprising 96 intellectually challenged adults exhibiting challenging behaviours, and the control group, consisting of 58 intellectually challenged adults who did not display challenging behaviours.

Their 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.

Furthermore, the researchers investigated other challenging behaviours within the two groups. They found that the self-injurious behaviour group displayed a higher frequency of "odd gestures and mannerisms," particularly among individuals with severe and profound mental retardation. On the other hand, individuals with challenging behaviours but without self-injurious tendencies exhibited a greater prevalence of depressed mood, loss of self-care skills, increased appetite, and suspicious, untrusting behaviour.

Carole, C., Raymond, M., Amber, M., Rebecca, B., Mandy, J., Angela , S., Meredith, H., and Brandon, K. (2004) studied on "A comparison of response cost and differential reinforcement of other behaviour to reduce disruptive behaviour in a preschool classroom". 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 reducing disruptive behaviours exhibited by 25 children in a preschool classroom. They employed an alternating treatments design to compare the outcomes of these interventions.

Here are the key findings of the study:

DRO Intervention: Initially, the DRO intervention, where children earned tokens for refraining from engaging in disruptive behaviours, showed promise in reducing the frequency of disruptive behaviours.

Response Cost Intervention: However, as the study progressed, the response cost intervention, in which children lost tokens for engaging in disruptive behaviours, emerged as the more effective approach in reducing disruptive behaviours.

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.P. (2005) studied on "A total population of challenging behaviour in the country of Hedmark Norway: trivalent and risk makers". The objective of this study was to investigate various forms of challenging behaviours among children and adults with intellectual disabilities in Hedmark County, Norway. The researchers aimed to identify different factors associated with these challenging behaviours. The study encompassed a total of 904 individuals with intellectual disabilities in Hedmark County, and all of them were included in the research. Among the participants, 54.7 percent were male, and 45.3 percent were female. To gather relevant data, the researchers utilized the Challenging Behaviour Survey: Individual Schedule.

The study's 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%). The study also noted that attacking others, weapon use (such as knives, chairs, ornaments, bottles), and destructive behaviour were more common among individuals with more demanding challenging behaviours.

The research did not find a significant association between gender and challenging behaviours. However, it was observed that more demanding challenging behaviours were most prevalent among participants aged 20 to 40 years. Individuals with mild and moderate intellectual disabilities exhibited more temper-tantrums and aggression towards others compared to those with severe intellectual disabilities. Conversely, self-injurious behaviour was more common among individuals with profound and severe intellectual disabilities. Additionally, the study found that individuals with autism displayed challenging behaviours more frequently than those without autism.

Eisenhower, A.S., Baker, B.L., and Blacher, J. (2005) studied on **"**Pre-school children with intellectual disability: syndrome specificity, behaviour problems and maternal wellbeing". Children with intellectual and developmental disability are at risk for different types of problem behaviours. Researchers noted that problem behaviour is associated with different types of syndromes who gave lower or sub average level of

IQ. The objective of the study is to search syndrome specific problem behaviour with maternal wellbeing. For collection of data the investigators identified 215 pre-school children who have either developmental disability or down syndrome or cerebral palsy or autism. For data collection from the samples the researchers used Bayley Scales of Infant Development-II (BSID-II). At the age of 3 and Standford-Binet intelligence scale- IV (Standford-Binet) at the age of 5. The Child Behaviour Checklist (Achenbach, 2000) for ages 1.5-5 years were also used to identify the problem behaviour of the subject. 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., and Roy, M.E (2006) conducted a study on "Prevalence and types of aggressive behaviour among adults with intellectual disabilities". This study had two primary objectives:

1. To assess the prevalence of aggressive behaviour among adults with intellectual disabilities (ID).

2. To examine the differences and similarities in aggressive behaviours between males and females within this population.

The study included a total of 3,160 adult participants with ID, comprising 1,527 (48.3%) females and 1,633 (51.7%) males. The average age of the participants was 40.63 years, with women having a slightly higher average age of 42.46 years compared to men at 38.96 years.

To collect data on aggressive behaviour, the researchers employed the Modified Overt Aggression Scale (MOAS). 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%).

The study found that the type of residential setting influenced aggressive behaviours, with individuals living in group homes, family-type residences, apartments, and other residential settings exhibiting varying levels of aggression. Notably, verbal aggression was less prevalent among individuals living with their families. Additionally, the study reported that 4.4% of participants had police involvement when they displayed aggressive behaviours.

Furthermore, the research highlighted a significant association between verbal, physical, and property aggression within the study population.

Jolanda, C.H.D., Marielle, C., Dekker, K.P., de Ruiter, N.T.T., Koot, H.M., and Bodfish, J. (2007) studied on anti social and deliquent 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., Mereier, C., Allaire, J.F., and Ray, M.E. (2007) studied that, "Profiles and correlates of aggressive behaviour among adults with intellectual disabilities". The study focused on adults with mild to moderate intellectual challenges, examining their aggressive behaviour profiles and their psychosocial associations. The research involved 296 adults in this category, with 162 males and 134 females, and their average age was approximately 40.67 years. The participants were categorized into six distinct groups:

a. Quiet Group: This group exhibited minimal aggressive behaviours, showing a tendency toward non-aggressive behaviour.

b. Acting-Out Group (23%): This group comprised 23% of the sample and displayed relatively mild forms of aggression, including verbal, property-related, and physical aggression.

c. Aggressive Group (18.6%): Approximately 18.6% of the participants fell into this category. They demonstrated a range of aggressive behaviours, including self-directed, sexually oriented, and physical aggression.

d. Violent Group: This group showed all forms of aggressive behaviours, although the exact percentage of participants in this group was not specified.

e. Sexual Group: Individuals in this group primarily exhibited aggressive behaviours of a sexual nature.

f. Self-Mutilation Group (6.4%): About 6.4% of the sample belonged to this category, and they displayed severe forms of self-directed aggressive behaviours.

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., and Folstein, S. (2007) conducted a study on "Atypical behaviours in children with autism and children with a history of language impairment". 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). Additionally, the researchers aimed to compare these two groups of children to ascertain whether atypical behaviours were related to their respective impairments.

The study encompassed a total of 107 children, comprising 39 with language impairment and 57 with autism. The age range for both groups was between 4 and 14 years. To assess language abilities, the Peabody Picture Vocabulary Test-3 (PPVT) and the Expressive Vocabulary Test (EVT) were administered to measure receptive and expressive vocabulary, respectively. To investigate atypical behaviours, the researchers employed the Atypical Behaviour Pattern Questionnaire (ABPQ) through parental interviews.

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.

Regarding aggressive behaviours, 38% of children with ASD exhibited aggression. In the majority of cases (88%), this aggression was directed towards their parents, while 75% displayed aggression towards their siblings. Additionally, 70% of these children showed aggression towards their teachers. In contrast, only 8 children with language impairment displayed aggression, with 5 of them exhibiting aggression both at home and at school, and 6 showing aggressive behaviour towards their parents.

Temper tantrums were observed in 38 children with ASD, with 50% of them experiencing temper-tantrums on a daily basis. Among children in the language-impaired group, temper-tantrums were present in 9 children. Upon comparing the two groups, the investigators found that children with autism exhibited significantly more temper-tantrums and self-injurious behaviours compared to children with language impairment.

Douma, J.C.H., Dekker, M.C., de Ruiter, K.P., Tick, N.T., and Koot, H.M. (2007) studied on "Antisocial and delinquent behaviour in youths with mild and borderline disabilities". In this study the researchers assessed 526 youths (in the age group 11-24 years) with mild to borderline intellectual disabilities. The objective of the study was to access the problem behaviours like antisocial and delinquent behaviours among intellectually challenged children. The researchers used Child Behaviour Checklist (CBCL) for assessing the antisocial and delinquent behaviours among intellectually challenged subjects. Result showed that most types of antisocial and delinquent behaviour like physical aggression, theft, property destruction, authority avoidance and substance abuse where 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 where population based sample of 11-24 years old with mild to borderline intellectual disability were consider using information from multiple informants. Again the

researchers noticed that boys possess more antisocial and delinquent behaviours than the girls. It may be due to that parents are more protective towards their daughters than their sons. The another cause may be that intellectually disabled boys specially are more prone to impulsivity. The researchers therefore, recommended that treatment of emotional and behavioural problems be done at an early age among intellectually challenged subjects.

McCarthy, J. (2008). Researcher suggested that the causes of origin of problem behaviours among intellectually disabled childrens are different types of individual characteristics and environmental factors. 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., and Others (2008) studied on "Prevalence of and factors associated with problem behaviour in adult with intellectual disabilities". The objective of this study was to investigate problematic behaviours among adults with intellectual disabilities and identify the factors associated with challenging behaviours. This research constituted a population-based cohort study, involving 1,023 participants, comprising 562 men and 461 women, whose ages ranged from 16 to 83 years.

To assess various aspects including cognitive abilities, physical health, disability, mental health, problem behaviour, and health-related behaviour, the researchers employed the C21st Health Check.

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, 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) studied on "Behaviour problems and psychiatric disorders among people with intellectual disability". 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. A total number of 181 intellectually disabled persons participated in the study. The Aberrant Behaviour Checklist, developed by Aman and Singh (1986, 1994), was used to assess behaviour problems among the participants. It was observed that out of 181 sample, 98 were rated as people with atleast one moderate or severe behaviour problem, while 83 participants were rated to have no behaviour problems or mild problems. 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 specially 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., and Olive, C. (2009) studied on "Relationship among different types of problem behaviour in severe intellectually challenged children". For their study they selected 6 subjects with intellectual disabilities who possess self-injurious behaviour (SIB), potentially injurious behaviour, repetitive behaviour, challenging and pragmatic communicative behaviours. 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 were also strongly temporally associated with all the mentioned challenging behaviours shown by intellectually disable subjects.

Erin, M., Camp, B. A., Iwata, and Jennifer, L. H. (2009) Studied on, "Antecedent versus consequent events as predictors of problem behaviour". The study explored conditional probabilities based on a combination of antecedent and consequent events to determine whether these provided better insight into the function of the problem behaviour. The study was conducted involving seven participants, aiming to conduct both descriptive and functional analyses of their problematic behaviours.

When comparing the results of descriptive analyses and functional analyses of problematic behaviour, researchers have generally found limited agreement. Descriptive analyses have typically focused on the connections between subsequent events and the behaviour in question. It's worth noting that attention often emerges as a common consequence associated with problem behaviour, even though it may not necessarily serve as a functional reinforcer. This could be because attention is sometimes recommended simply as a means to interrupt severe problem behaviour. Therefore, it raises the possibility that naturally occurring antecedent events (known as establishing operations) might be more effective predictors of problem behaviour than the consequences themselves.

The results indicated that, for four out of the seven participants, there was some alignment between the data from these combined antecedent and consequent events and the outcomes of the functional analysis. However, it was found that antecedent events did not consistently outperform consequent events in identifying the underlying function of problem behaviour.

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 consistently demonstrate superior accuracy compared to consequent events in determining the function of the behaviour.

Rubin, K.H., Coplan, R.J., and Bowker, J.C. (2009) studied on **"s**ocial withdrawal in childhood". In childhood social withdrawal is not clinically defined. Though it was noted that during childhood some children spent most of their time alone, working or playing but without presence of anybody or without interacting with others. Some others spent their time by writing, drawing, craft work or designing home. Some children are isolated or rejected by others due to their social commitment or personal life. Social withdrawal represent the developmental outcomes of some childrens

temperament. For some others withdrawal is related to childs isolation, rejection or exclusion. In some cases due to social fear and anxiety, low self-esteem, depressive symptoms and internalizing problems or peers difficulties like rejection or school difficulties like poor quality teacher-child relationship or academic difficulties remain socially withdrawn. Researchers noted that social withdrawal is related with primary attachment relationship with the parents, parenting style, parental believes. Childhood social withdrawal with some time co-related with qualities of peers interaction, pears 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., and Bailey, D.B. (2010) Studied on "National Fragile X survey". Persons affected in Fragile X Syndrome possess intellectual disability. Researchers noted that children affected from fragile X syndrome also possess different types of problem behaviours. 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., and Woodcock, K.A. (2010) studied on "The association between repetitive behaviours, impulsivity and hyperactivity in people with intellectual disability". The researchers studied to open whether any association exists between repetitive behaviours, impulsivity and hyperactivity in people with intellectual disability. For this study the researchers identified 755 intellectually disabled participants. The Activity Questionnaire (TAQ) was developed by the researchers for this study. The questionnaire consists of 3 sub scale- Over activity, Impulsivity and Impulsive Speech. Face validity, test re-test, inter-rater reliability and internal consistency of the questionnaire were established. 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, Patten, and Vlaskamp (2010) conducted a study on "Frequency and severity of challenging behaviour in people with profound intellectual and multiple disabilities". 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 encompassed a total of 181 participants with profound intellectual challenges and multiple disabilities, ranging in age from 3 to 62 years. Of these participants, 56% were male, and 44% were female. The researchers employed the Behaviour Problem Inventory Rating Scale to identify and assess challenging behaviours within this population.

Among the 181 participants, a significant majority, specifically 166 individuals (82%), displayed one or more forms of challenging behaviours. Self-injurious behaviours were particularly noteworthy, with 148 participants (82%) exhibiting them on a daily or weekly basis. These self-injurious behaviours included actions such as refusing food, self-harming actions like hitting oneself, biting oneself, and grinding teeth. Notably, self-injurious behaviours were more prevalent among individuals with psychiatric issues.

Furthermore, 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., and Koot, H.M. (2011) Studied on "Predicting change in emotional and behavioural problems during inpatient treatment in clients with mild intellectual disability". 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 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., and Berger, I. (2011) investigated "Down syndrome and Attention deficit hyperactive disorder". 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 involved the inclusion of 41 children (24 boys and 17 girls) diagnosed with Down syndrome. These children were receiving care from Meuchedet Health Services in Jerusalem and ranged in age from 5 to 16 years. To diagnose Attention Deficit Hyperactivity Disorder (ADHD), the researchers conducted interviews with both the children and their parents. Additionally, they utilized a questionnaire based on DSM-4-TR criteria, which was completed by parents and teachers.

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., and Moeeison, T. (2011) conducted a study on "Low mood and challenging behaviour in people with severe and profound intellectual disabilities". The study involved a group of 52 adults with severe and profound intellectually challenges, ranging in age from 18 to 55 years. Within this group, there were 39 men and 13 women. 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.

To assess low mood, the researchers employed the Mood, Interest, and Pleasure Questionnaires (MIPQ). Challenging behaviours were identified using the Challenging Behaviour Interview (CBI).

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.

Furthermore, the study suggested that both learning disabilities and low mood could serve as significant predictors of both the frequency and severity of challenging behaviours among this group of intellectually challenged adults.

Bowring, D.L, Totsika, V, Hastings, R.P, Toogood, S., and Griffith, G.M (2016) conducted a study on "Challenging behaviours in adults with an intellectual disability: A total population study and exploration of risk indices". The primary objective of this study, as indicated by its name, was to assess the prevalence of challenging behaviours among adults with intellectual disabilities (ID) residing in New Jersey. The study included a total of 265 adult participants, with 134 being male and 131 female. Data collection was conducted using the Behaviour Problems Inventory-Short Form (BPI-S).

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%).

The researchers also explored the potential risk factors associated with challenging behaviours. They reported that limited understanding, non-verbal communication, and severe to profound intellectual disabilities were significantly linked to all types of challenging behaviours, including self-injurious behaviour, aggressive and destructive behaviour, and stereotype behaviour.

Additionally, factors such as residing in congregate care settings, impaired vision, the presence of another syndrome, lack of clear speech, seizures, epilepsy, and mobility problems were also associated with challenging behaviours. However, the study found no significant associations between challenging behaviours and factors such as age, gender, having Down syndrome, living with parents, impaired hearing, dementia, or psychiatric disorders.

Fauth, R.C., Platt, L., and Parsons, S. (2017) studied on the "Behaviours problems among disabled and non-disabled children in England". Boys and girls having developmental disabilities exhibit different types of problem behaviours like hyperactivity, aggression, conduct behaviour, emotional symptoms etc. For some

children's behavioural problems though appear in early ages but resolved over the normal course of development. For collection of data the researchers used longitudinal Millennium Cohort Study (MCS) containing about 19,000 babies in their 9 month age in the England. Result showd that disabled children possess more problem behaviours than non- disabled children at the age 3. Disabled boys show increasing gap in peer problems, hyperativity and emotional problems overtime. Researchers also noted that in less cases parenting style and problem behaviours are associated moderately.

Goldman, K.J., and DeLeon, I.G. (2022) studied on, "Increasing selection of and engagement in physical activity in children with autism spectrum disorder". Researchers conducted two studies to address the issue of reduced physical activity engagement in children with autism spectrum disorder (ASD) compared to neurotypical children. These studies aimed to:

Evaluate the Impact of Physical Activity Options and Effort on Choice: The first study examined how the number of physical activity options and the level of effort required influenced the choices made by children with ASD. Four children with ASD participated in this study. The results showed that simply providing additional physical activity options did not lead to an increase in physical activity selection. However, increasing the effort required reduced the selection of sedentary activities.

Develop a Token-Based Intervention: In the second study, the researchers developed a token-based intervention to encourage increased physical activity engagement in children with ASD. They also investigated whether the opportunity to access this intervention would lead to responses like engaging in physical or sedentary activities alone. The use of tokens proved effective in increasing physical activity for two of the participants. Additionally, the combination of physical and sedentary activities was found to maintain or even increase the participants' responses compared to engaging in either type of activity in isolation.

These 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.

The study acknowledges its limitations and highlights areas for potential future research, indicating a commitment to further understanding the relationship between choice and physical activity in children with ASD and improving interventions in this context.

Melanson, I.J., and Fahmie, T.A. (2023) studied on "functional analysis of problem behaviours from 40 years of review". The researchers studied 326 research work in which where published during the period June 2012 to May 2022. They studied 48 journals where 906 research paper where published. Therefore, the researcher studied a total 42.8% of published papers. Researcher also noted that in 92% cases only one child participant were used to studied the problem behaviour and these students were in the age group 1 to 9 (78.3%). In less cases adult students were included (17.8%) to study the problem behaviour of the child. 55 participants included between the age group 19 and 64 and only 3 participants (5.2%) were in the age group 65 and above. In most cases (50.3%) out patients clinics were used for studying functional analysis of the samples. In less number cases functional analysis were conducted in patients hospital units. Some other settings in 17 studies were included as adult day center for medical and social services, a specially designed home for adults with dementia, brain injury rehabilitation day programme and local pediatric clinic. 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. They also noted that in corporation of Antecedent Behaviour (AB) functional analysis model were used in 4.3% studies. In 2.5% studies both ABC model and AB model were used. Researchers concluded that ABC model of functional analysis were more used in most of the studies (90.3%) compared with AB model (11.7%) as well as both ABC and AB model (5.0%).

2.4. REVIEW OF INDIAN RESEARCH LITERATURES:

Solanki, S.L. (1993) conducted a study on "Behavioural Problem in Mentally Retarded Children In relation to Family Environment".

The study had several objectives:

1. To identify problematic behaviours in both mentally retarded and mentally normal students.

2. To investigate the factors contributing to these behaviour problems.

3. To assess whether there were any gender differences in behaviour problems.

The researcher selected a sample of 200 mentally retarded children and 30 mentally normal children for the study. To collect relevant data, various scales and tools were utilized, including the Binet Kamat Test of Intelligence (BKT)for Indian children, Seguin form Board, Vineland Social Maturity Scale, a Behaviour Problem Questionnaire (developed by the researcher), Family Environmental Scale, and Parent-Child Relationship Scale.

Upon analyzing 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.

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.

Nanda, B.P. (1997) studied on "Modification eye pocking of a total congenital blind girl by differential reinforcement technique of Applied Behaviour Analysis procedure". The purpose of the research investigation was to develop and validate a systematic observational methodology. To study the problem behaviours like 'eye-pocking' (eye-hand mannerisms) of visually disabled it was noted that the probable causes of eye-pocking are "self-stimulation, auto-erotic behaviours, physical activity substitutes,

reactions to stress, faulty parent child interactions" etc. The researcher attempted to investigate how eye pocking behaviour could be experimentally reduce by using Differential Reinforcement of Other behaviour (DRO). The researcher used single case research design. The technique was baseline-1 (pre-treatment), intervention-1, baseline-2 (post-treatment), intervention-2 and maintenance. Result showed that differential reinforcement of other behaviour is effective 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) studied on how "Reducing self-stimulatory stereotyped body rocking of a retarded boy by differential reinforcement techniques and environmental manipulation" .For this study the investigator received a 4 year old boy who live in rural area and is the only son of his parents. The child is affected by severe intellectual disability with developmental problems. The researcher first assess the behaviours of the baby and noted that the child possess body rocking and aggressive attitude. After a cordial discussion with parents the researcher first attempted to modify the body rocking behaviour of the subject. Single case research design like baseline-1 (pre-treatment), intervention-1, baseline-2 (post-treatment), intervention-2 and maintenance were used as the technique of study. During intervention-1 and intervention-2 session the researcher used Differential Reinforcement of Low rate of behaviour (DRL) and environmental manipulation in fixed interval schedule and variable interval schedule respectively as the reinforcer. Result clearly demonstrate that environmental manipulation and differential reinforcement techniques are effective in reducing body rocking behaviour of intellectually and developmentally disabled child.

Kishore, M.T., Nizamie, S.H., and Nizamie, A. (2005) conducted a study on "The behavioural profile of psychiatric disorders in person with intellectual disability". The primary objective of this study was to explore and understand behavioural disorders in individuals with intellectual challenges. The study involved a sample of 60 individuals with intellectual disabilities, ranging in age from 12 to 55 years. A majority of the participants were male, constituting 76.7 percent of the sample. To assess their problem behaviours, the researchers employed the RSMB (Reiss Screen for Maladaptive Behaviour), the Reiss Screen Test Manual, and the AAMD (American Association on Mental Deficiency) Adaptive Behaviour Scale Part 2.

The researchers categorized the sample into four distinct groups:

Group 1: The behavioural group, comprising individuals with unspecified problem behaviours, consisting of 24 participants.

Group 2: The psychosis group, including individuals with unspecified psychosis, schizophrenia, delusional disorder, and autism, encompassing 19 participants.

Group 3: The affective disorder group, which comprised individuals with bipolar affective disorder, mania, and depression, consisting of 13 participants.

Group 4: The "others" group, which encompassed individuals with personality disorders, conduct disorders, substance dependence, and obsessive-compulsive disorder, comprising 4 participants.

The study aimed to investigate behavioural disorders in individuals with intellectual challenges by examining a sample of 60 participants, primarily males, and categorizing them into four groups based on the nature of their specific behavioural issues or disorders.

The study's results revealed several key findings:

Aggression was observed in 50% of the individuals in the sample, making it the most prevalent problem behaviour. Additionally, 42% of the participants experienced sleep problems, 31% exhibited hostility, 30% displayed eating issues, and 20% demonstrated regressive behaviours.

Among the different groups, the highest levels of aggression were found in the affective group, followed by the psychosis group and the behavioural group.

When it came to rebellious behaviours, the study identified significantly higher levels in the affective and "other" groups compared to the psychosis group.

In terms of psychological disturbances, individuals in the affective group scored significantly higher than those in the behavioural and psychosis groups.

Interestingly, the behavioural group exhibited significantly more stereotyped behaviours and odd mannerisms compared to the affective group.

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., and Mitra, M. (2006). The authors studied on "Use of primary reinforcement technique in the modification of aggressive and hyperactive behaviours of child with mental retardation". Modification technique of aggressive and hyperactive behaviour of an intellectually disabled baby by using primary reinforcement technique like use of chocolate in a fixed interval schedule and variable interval schedule. The subject was a 9 year old boy having intellectual disability the boy showed aggressive and hyperactive behaviour and possess speech problem. Other problem behaviour showed by the subject were restless, spitting, unnecessary asking question, and lack of interest to follow any instructions. The researchers selected aggressive (spitting) and hyperactive (restless) behaviours for modification and carefully selected chocolate as the primary reinforcer for modification of problem behaviour. The researchers carefully studied the antecedent and consequence condition of the environment which influence and sustained his spitting and restless behaviour. The subject showed both these behaviours in home and school when he was asked for completion of a particular task. In his class the client disturbed all other children and did not seat in his own place. The researchers used single case research design like baseline-1 (pre-treatment), intervention-1, baseline-2 (post-treatment), intervention-2 and maintenance as the research technique to modify the problem behaviours. During intervention 1 and 2 session they used primary reinforcers (chocolate) in fixed interval schedule and variable interval schedule. 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., and Chaudhury, S. (2006) studied on "Study of Behaviour Problems in a Paediatric Outpatient Department". Behaviour problems in children still needs precise definition, explicit criterion and assessment on

multiple paradigms. Fifty children of the age group 6-14 years, from paediatric outpatient department, selected after randomisation were assessed for behaviour problems with the child behaviour checklist. The data collected was analysed using appropriate statistical tests. 40% children were above cut off score. Mean child behaviour check list (CBCL) score was 40.6. Total of 72% children were from armed forces background of whom 9% were siblings of officers. 30.6% children from the armed forces background were above the cut off score. 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 viz. children of civilian population.

Prakesh, J., Sudarsanan, S., and Prabhu, H.R.A. (2007) studied on, "Study of behaviour problem in mentally retarded children." The study focused on a group of 50 mentally retarded children, all of whom fall within the age range of 6 to 14 years old. The primary objective of this study was to investigate behavioural problems among children with mental retardation. The researchers gathered their sample randomly from a special school dedicated to mentally retarded children. To assess the children's behaviour, they utilized the Child Behaviour Checklist (CBCL).

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.

Specifically, among the younger age group, common challenging behaviours included impulsivity, acting younger than their age, and difficulty concentrating. Among male children, temper tantrums, a hot temper, impulsivity, and difficulties in getting along with others were notable. On the other hand, female children were more prone to

getting hurt frequently, being accident-prone, and having trouble concentrating. These behaviours were also observed in children with mild mental retardation. However, in the case of children with moderate retardation, challenges related to concentration, nail-biting, a higher tendency to get hurt, and being accident-prone were prevalent.

Nanda, B.P., and Mazumder, P. (2007) conducted a study on "Extent and types of maladaptive behaviours among special school enrolled children with mental retardation". A sample of 100 intellectually challenged children, ranging in age from 5 to 18 years, was selected for a study. Data collection was carried out using the behaviuor rating scale published by the American Association of Mental Retardation (AAMR). 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. Additionally, a considerable number of participants exhibited unusual behaviours, withdrawal tendencies, and a rebellious attitude. When examining hyperactive behaviours, it was noted that many of the students frequently engaged in excessive talking and pulling objects around them.

Biswas, T.H., Chatterjee, I., and Nanda, B.P. (2011& 2012) conducted **"**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". The researchers studied in depth on extent and types of problem behaviours exists among the multiple disabled children and their impact upon parental distress. For this study they considered 68 samples from different corners of West Bengal. They used Behaviour Rating Scale (AAMR) and Hopkins Symptoms Checklist (HSCL-10) for collection of relevant data from the multiple disabled children and their parents. 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) conducted a study on “Behaviour problem in children with mental disabilities”. The primary objective of this study was to investigate problem behaviours in children with intellectual challenges (ID). Here are the key details and findings of the study: **Participants:** The study involved a sample of 140 children with intellectual challenges. **Assessment Tool:** To assess problem behaviour, the researchers utilized the BASIC-MR Part-B. **Findings:** The study's results revealed the prevalence of various problem behaviours among the children with intellectual challenges:

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.

Other Relevant Findings: The study also uncovered additional insights:

1. Children with intellectual challenges who attended therapy classes exhibited fewer problem behaviours.

2. Problem behavioursare notably absent among intellectually challenged children who engaged themselves in "other" activities.

3. There was no significant difference in problem behaviours related to daily living activities such as sleep, feeding, play, and ablution.

In summary, the study's main objective was to explore and understand the occurrence of problem behaviours in children with intellectual challenges. It identified various problem behaviours and highlighted the influence of therapy classes and engagement in other activities on mitigating these behaviours. Additionally, the study indicated that daily living activities did not significantly contribute to problem behaviours in this population.

Nanda, B.P., and Mondal, S. (2015). Researchers studied on “Problem behaviours about children with multisensory (deaf-blind) impaired children”. The objectives of 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. For collection of data the investigators studied indepth 20 multisensory impaired children from Kolkata. Behaviour Rating Scale published by American Association of Mental Retardation were used to study the problem behaviours among multisensory impaired children. 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., and Tripathi, A. (2015) studied on "The behaviour problems of children with visual impairment". Visually impaired children possess different types of manneristic behaviours like eye poking, light-gazing, hand shaking, body rocking and face twisting. 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 basis of their demographic features (like, gender, age, habitat, class, family structure and types of disability). The investigators selected 26 visually impaired children of Kolkata metropolitan city as the respondent of the study. For data collection the researchers used Behaviour Rating Scale of AAMR. Result showed that girl 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 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 respondents 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. To make these children integrated in the mainstream educational institutions there is no other alternatives than to modify their problem behaviours.

Mondal, P., and Nanda, B.P. (2015). The researchers studied on "Assessment of problem behaviour among intellectually impaired children by using BASIC-MR (part-

B)". The researchers study the problem behaviours of intellectually disabled children and collected data from 10 samples. For data collection tool they used BASIC-MR (Part-B), developed by NIMH, Secundrabad. The age group of the samples were 7-14 years and they were studied in class-I-IV standard. 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, magazinesand damaging furnitures. Temper-tantrum behaviour is common. Self-injurious behaviour are 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. Researchers concluded that intellectually disabled children are unable to draw stimulations from others as well as from the environment. Therefore, to stimulate themselves and to draw attention of others they become habituated in socially unaccepted problem behaviours.

Lakhan R., and Kishore, M.T. (2016) studied on "Behaviour problems of intellectually disabled children in a resource-poor setting in India". Problem behavioursare common among intellectually disabled children though it varies depending upon the age, sex, and intellectual level. 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. For collection of data the researchers considered 104 intellectually disabled subjects having 57 males and 47 females in the age group 3-18 years. Behavioural Assessment Scale for Indian Children with Mental Retardation (BASIC-MR) was used for collection of data. Result showed that problem behaviours like violent and destructive behaviour, temper-tantrum and self-injurious behaviour were differently distributed among intellectually disabled children. IQ and problem behaviours like destructive and violent behaviours and mis behaviours with others are associated with positive significance. 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. They did not found any significant co-relation between gender and problem behaviours of the child.Therefore, they concluded that behaviour problems are subject specific and are not equally distributed among all categories of

children with intellectual disabilities. Relation between behaviour problems with gender, intellectual ability and age may not be uniformed. Specific problem behaviours are present among intellectually disabled children on specific age group and their level of IQ.

Mondal, P., and Nanda, B.P. (2016) studied on the "Problem behaviours of children with intellectual impairment and associated disorder". The objective of the study was to know the different types of problem behaviours associated with intellectual disability and other related disabilities on the basis of their age, gender, family structure of intellectual disability, birth order and family income. The researchers studied a total of 35 samples from both the rural and urban habitat from West Bengal. Child Behaviour checklist for ages 6-18 developed by Achenbach (2001) and adapted in Bengali by Nanda 2015 was used for data collection from the samples. Result showed that children whose age is 15 or more, they possess more problem behaviours then the younger agechildren. 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. In respect to birth order of the samples 1st and 2nd disabled baby possess more problem behaviours than the 3rd or 4th baby. Multiple challenged baby who are from poor financial background possess more problem behaviours than the children from stable family income background.

Pikakshi, Verma, K.K., Goyal, S.G., Thakral, A., and Baniya, G.C. (2019) conducted a study on "Comorbidities among children with intellectual disability presenting for disability certification at a tertiary care center and assessment of burden in mothers of those children". The primary aim of this study was to investigate various aspects concerning children with intellectual challenges. Specifically, the study aimed to explore physical, behavioural, and sleep problems in these children, while also assessing the burden experienced by mothers who care for them. Here are the key details of the study: **Participants:** The study involved a sample of 50 children with intellectual challenges, with an average age of 11 to 15 years. **Assessment Tools:** To assess the children's cognitive abilities, the researchers used the Seguin form board. The Vineland Social Maturity Scale was employed to measure their social quotient

(SQ). Additionally, the study used the BASIC-MR Part-B to evaluate problem behaviours among the children.

Findings: The study's results indicated that all the problem behaviours listed in BASIC-MR Part-B were present in at least 4% of the children. Hyperactivity emerged as the most common problem behaviour, observed in 48% of the children, while violent behaviour was present in 30% of them. Notably, problem behaviours were more prevalent among male intellectually challenged children compared to their female counterparts. **Burden on Mothers:** The study also explored the burden experienced by mothers caring for intellectually challenged children. It was found that 32% of mothers reported experiencing moderate-to-severe burden, while 24% of mothers reported severe burden. There was a negative correlation observed between the burden experienced by mothers and the IQ and SQ scores of their children.

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., and Nanda, B.P. (2020) studied on "Treatment of aggressive behaviour of intellectually challenged learner by using primary and social reinforcers". The researchers selected a subject of 11year aged intellectually challenged child. The subject admitted in a special class in a special school for intellectually challenged. The subject frequently showed aggressive behaviour in his class when he is instructed for performing any activities. Sometimes he also became destructive by throwing his bag, books, water bottle and even tiffin box towards his teachers and peers. The researchers carefully selected ABC Model for modifying 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., and Nanda, B.P. (2020) studied on "Extent and types of repetitive and stereotyped behaviours existed among school enrolled developmentally challenged children- a survey". The researchers collected data from 20 developmentally challenged children from Kolkata metropolitan city. All the subjects are attending the mainstream government aided Bengali medium primary schools. The age group of the subjects

were 6-12 years. Developmentally challenged boys and girls were consider for data collection. The researchers used Behaviour Rating Scale developed by American Association of Mental Retardation (AAMR). For data collection the researchers used only repetitive or stereotyped behaviour dimension, that possess 11 items. 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. Otherwise the problem behaviours shown by disabled children will create chaos in the class, and thereby will disturbed the regular academic discourse. If teachers can be trained to identify the problem behaviours, knowledge about root of origin of problem behaviours and their modification strategies, teachers will be able to modify the problem behaviours of these children. Awareness and sensitization of non-disabled children in the class and school are also essential.

Ata, S., and Nanda, B.P. (2020) studied on "Aggression and violent behaviour among challenged and non-challenged: A critical review of related studies". 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 in the family members of the disabled child cannot accept them. Therefore, it is important to modify these problem behaviours. In this study the researchers analyzed the probable biological root of origin of these two problem behaviours. In most cases biological root of origins are not treatable. When cultural and situational factors or social and environmental factors are responsible for such types of problem behaviours than it is treatable and thereby the problem behaviours are modifiable. Researchers concluded that "parental involvement", "parental training", "teacherspre-service and in-service training" as well as regular "community sensitization" are essential to improve the community and family mental health. Therefore, it is mandatory for all the educational institutions to train up the teachers and primary care givers regarding probable causative factors of aggression and violence among the disabled and non-disabled individuals. It should be treated as essential training for the development of mankind.

2.5. REVIEW MATRIX:

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.	*Mental Handicap Research*	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.	*Journal of Intellectual Disability Research*	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.	*Research in developmental disability*	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-mentally retarded adults.	*Advance behavioural research theory*	The primary objective of this research was to compare the levels of fear between the two groups, individuals with intellectual disabilities (MR) and those without (NMR).	The findings indicated that individuals with intellectual disabilities demonstrated higher levels of fear compared to those without intellectual disabilities. 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.	*Chicago Journals*	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.	*Journal of applied behaviour analysis*	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.	*Journal of applied behaviour analysis*	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 (1999).	False positive maintenance of self-injurious behaviour by access to tangible reinforcers.	*Journal of Applied Behaviour Analysis*	The purpose of the study was to know whether self-injurious behaviour are maintained by multiple reinforcers.	The subject was a 26 years old women with severe intellectual 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.	*Journal of applied behaviour analysis*	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.	*Journal of Intellectual Disability Research*	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.	*Journal of applied behaviour analysis*	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.	*Research in Developmental Disabilities*	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. *Journal of applied behaviour analysis*	*Journal of applied behaviour analysis*	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:	*Research in Developmental Disabilities*	The objective of this study was to investigate various forms of challenging behaviours	Findings revealed that challenging behaviours were present in 91 individuals, constituting 11.1 percent of the

	Prevalence, and risk markers.		among children and adults with intellectual disabilities in Hedmark County, Norway.	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.	*Journal of Intellectual Disability Research*	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 manifestration 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.	*Journal of Intellectual Disability Research*	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.	*American Journal on Mental Retardation*	Researchers studied on anti-social and deliquent 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.	*Journal of Intellectual Disability Research*	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.	*Research in developmental disability*	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.	*American Journal on Mental Retardation*	The objective of the study was to access the problem behaviours like antisocial and delinquent behaviours among intellectually challenged children.	Result showed that most types of antisocial and delinquent behaviour like physical aggression, theft, property destruction, authority avoidance and substance abuse where 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.	*Journal of Intellectual Disability Research*	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.	*The journal of nervous and mental disease*	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.	*American Journal on Intellectual and Developmental Disabilities*	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.	*Journal of applied behaviour analysis*	The study explored conditional probabilities based on a combination of antecedent and consequent events to determine whether these provided better insight into the function of the problem behaviour.	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 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.	*Annual Review of Psychology*	To study the causes of social withdrawal in childhood	Childhood social withdrawal with some time co-related with qualities of peers interaction, pears 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.	*American Journal on Intellectual and Developmental Disabilities*	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.	*Journal of Intellectual Disability Research*	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 *Developmental Disabilities*	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.	*Journal of Applied Research in Intellectual Disabilities*	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 where 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).	*Journal of child neurology*	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.	*Journal of Intellectual Disability Research*	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.	*British Journal of Clinical Psychology*	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.	*Journal of Applied Developmental Psychology*	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.	*Journal of Applied Behaviour Analysis*	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.	*Journal of Applied Behaviour Analysis*	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	To identify problematic behaviours in both mentally retarded and mentally normal students. To investigate the factors contributing to these behaviour problems. To assess whether there were any gender differences in behaviour problems.	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. 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.
Nanda, B.P. (1997).	Modification of eye pocking of a total congenital blind girl by differential reinforcement technique by Applied Behaviour Analysis procedure.	*Journal of Education*	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 retarded boy by differential reinforcement techniques and environmental manipulation.	*Indian Journal of Clinical Psychology*	To reduce self-stimulatory stereotyped body rocking of a retarded boy by using differential reinforcement technique and environmental manipulation.	Result clearly demonstrate that environmental manipulation and differential reinforcement 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.	*Journal of Intellectual Disability Research*	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.	*Journal of Education*	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.	*Medical Journal, Armed Forces India*	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.	*Delhi Psychiatry journal*	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.	*Journal of Education*	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.	*Indian journal of special education*	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.	*European Journal of Experimental Biology*	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 University and Arogya Sandhan Charitable Trust	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 basis of their demographic features	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 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.	*Journal of Applied Research in Intellectual Disabilities*	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 behaviouir 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 then the younger children. When genders of the samples were considered it was found that boys possess more problem behaviours then 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.	*Journal of Mental Health and Human Behaviour*	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.	*Indian Journal of Special Education*	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.	*Indian Journal of Special Education*	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.

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CHAPTER III

RESEARCH METHODOLOGY

CHAPTER-III

RESEARCH METHODOLOGY

3.1. INTRODUCTION:

Methodology is the plan and procedure of any research. It is also known in research ground as design of the study. It is the framework and technique of inquiry that is envisioned in order to achieve appropriate answers to research questions and to manage dissimilarity. In any quantitative investigation, study design and procedure play an ideal role to select the proper way of investigation according to the purpose of the study. Research methodology enables the investigator to provide appropriate answers of research questions in validity, objectivity, reliability as far as possible and accurately. It is a pre-plan or blueprint of status for collection and probable nature of analysis of data. Different types of study design are obtainable to conduct research but the choice of accurate direction in particular research depends on the nature of problems, variables, sample, measuring tools and the restraints on the manipulation of variable involved.

This chapter deals with method, population, sample and sampling technique, sample size, tools or instruments, data collection, statistical analysis used etc.

3.2. METHOD OF THE STUDY:

Method of research is a basic plan for research. After selecting a research problem, the investigator finds out the proper scientific way before the situation areas in which the decisions are to be carried out about the study. It helps the researcher to construct the logical pillar about the process of study accurately and economically. A proper research method is very essential to complete the research work, it depends on the nature of study. The present study uses a descriptive survey research. Best (1977) defines descriptive research as the description, recording, analysis, and interpretation of current situations. It involves some sort of comparison or contrast, and it may be used to focus on finding relationships between non-manipulatable variables.

Descriptive survey method is used in social science and education. Survey method is favourable to a wide diversity of purpose. All crucial steps and qualities that have been

specified as needed for the descriptive method of research have been gathered in the current investigation.

3.3. POPULATION:

According to Creswell (2008) population is "a group of individuals who have the same characteristics". For present study the investigator comprised population of all the special school enrolled developmentally disabled students studying in different district of West Bengal.

3.4. 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.

Table No. 3.1. Showing the demographic characteristics of the samples:

INDEPENDENT VARIABLES (N=124)	TYPES	TOTAL NO. (n-124)	PERCENTAGE (%)
GENDER	Boys	100	80.65
	Girls	24	19.35
AGE	6-12	22	17.74
	13-18	102	82.26
EDUCATIONAL STANDARD	Pre-primary	14	11.29
	Primary	44	35.48
	Pre-vocational	66	53.23
HABITAT	Rural	72	58.06
	Urban	52	41.94
FAMILY STRUCTURE	Joint	22	17.74
	Nuclear	102	82.26
FAMILY INCOME OF THE PARENTS	5001/- -10,000/-	54	43.55
	10,001/- -Above	70	56.45
PARENTAL EDUCATION	Up to 10^{th} standard	38	30.65
	Higher Secondary	20	16.13
	Graduate	66	53.22

BIRTH ORDER OF THE CHILD	1st	66	53.23
	2nd	58	46.77
AGE OF ONSET OF DISABILITY	0-3	110	88.71
	3+ -6	14	11.29
AVAILABILITY OF EARLY INTERVENTION FACILITIES	Yes	24	19.35
	No	100	80.65
AVAILABILITY OF PARENTAL COUNSELLING	Yes	28	22.58
	No	96	77.42
AVAILABILITY OF PARENTAL TRAINING ON PARENTAL INVOLVEMENT	Yes	10	08.06
	No	114	91.94
AVAILABILITY OF PARENTAL SUPPORT	Yes	112	90.32
	No	12	09.68
AVAILABILITY OF COMMUNITY SUPPORT	Yes	94	75.81
	No	30	24.19
RANGE OF DISABILITY	MILD	38	30.65
	MODERATE	58	46.77
	SEVERE	28	22.58
TYPES OF DISABILITY	ID + Autism + Speech and Language Disability	18	14.52
	ID + HI + VI + Speech and Language Disability	06	4.84
	Autism + ADHD + Speech and Language Disability	08	6.45
	Intellectual Disability (ID)	24	19.35
	ID + Speech and Language Disability	40	32.26
	ID + CP + Speech and Language Disability	28	22.58

Table No. 3.1.

3.5. 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

3.6. RESEARCH TOOL:

The tool or instruments are important part to any quantitative study. For collection of data the investigator used one standardized tool, the details of which are described below:

Child Behaviour Checklist (CBCL) for ages 6-18. This tool was developed by Achenbach, T.M., and Rescorla, L.A. in 2001. This questionnaire is used for general assessment of child behaviour. In this questionnaire the domain assessed are grief/ loss and anxiety/ mood (internalizing symptoms). The questionnaire consists of 113 items. The CBCL is a valid and reliable measure which is sensitive to change in short

interventions. It assesses both externalizing and internalizing problems. The answer key of the format are arranged according to 3 point Likert scale (0- not true or absent, 1-occur sometimes or somewhat and 2-occur often or very true). Maximum score denotes more problem behaviours.

Reliability of the scale was tested by test re-test method. Content validity of the questionnaire was also established by mental health professionals and educators.

This scale was used by the present researcher in the present study because-

1. The scale is developed after well researched and widely used.
2. The scale is newly revised measured.
3. It is DSM-IV oriented.
4. It provides information on strength of the child.
5. The scale is inexpensive to administer and score.
6. Computer generated reports are available easily with clinical friendly feedback etc.

3.7. 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 receiving the permission from the authority and special educator for concern child, the investigator meets each individual personally to collect the data from them after creating the helpful relation. Finally, 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.

3.8. STATISTICAL ANALYSIS:

The investigator cleaned and quantified each data sheet after collecting it, then tabulated it 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 following descriptive and inferential statistical measures based on the study's objectives and hypotheses-

1. Mean, Standard Deviation and Percentage was applied to find out the central tendency and distribution of the score.

2. As the sample selection method was purposive sampling and the score distribution of the study did not meet the assumptions of parametric statistics the investigator had to apply non-parametric statistical analysis for drawing inferences from the tests scores. The following statistical analysis was used: Chi-squire and media test of independence was used to analyse if there exists any significant association between the dependent variable and levels of independent variables of this study.

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CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

CHAPTER –IV

ANALYSIS AND INTERPRETATION OF DATA

4.1. INTRODUCTION:

The present chapter represent objective wise outcome of data analysis in a systematic manner using proper statistical technique. 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.

Table No. 4.1.1. Table showing types of problem behaviours of school enrolled developmentally disabled children on the basis of their items:

ITEM NO.	NOT TRUE Score-0		SOMEWHAT OR SOMETIMES TRUE Score-1		VERY TRUE OR OFTEN TRUE Score-2		TOTAL SAMPLE
	N	%	n	%	n	%	
1. Acts too young for his / her age	24	19.35	12	9.68	88	70.97	124
2. Drinks alcohol without parents' approval (describe):	124	100	0	0	0	0	124
3. Argues a lot	98	79.03	24	19.35	2	1.61	124
4. Fails to finish things he/she starts	18	14.52	56	45.16	50	40.32	124
5. There is very little he/she enjoys	44	35.48	44	35.48	34	27.42	124
6. Bowel movements outside the toilet	90	72.58	26	20.97	8	6.45	124
7. Bragging, boasting	90	72.58	30	24.19	4	3.22	124
8. Can't concentrate, can't pay attention for long	14	11.29	50	40.32	58	46.77	124
9. Can't get his/her mind off certain thoughts; obsessions (describe):	38	30.64	38	30.64	48	38.70	124
10. Can't sit still, restless, or hyperactive	42	33.87	56	45.16	26	20.97	124
11. Clings to adults or too dependent	46	37.09	44	35.48	34	27.42	124
12. Complains of loneliness	76	61.29	30	24.19	18	14.52	124
13.Confused or seems to be in a fog	96	77.42	26	20.97	2	1.61	124
14. Cries a lot	26	20.97	80	64.52	18	14.52	124

15.Cruel to animals	102	82.26	16	12.90	6	4.84	124
16.Cruelty, bullying, or meanness to others	90	72.58	26	20.97	8	6.45	124
17. Daydreams or gets lost in his/her thoughts	120	96.77	0	0	4	3.22	124
18.Deliberately harms self or attempts suicide	120	96.77	4	3.22	0	0	124
19.Demands a lot of attention	4	3.22	58	46.77	62	50	124
20. Destroys his/her own things	80	64.52	30	24.19	14	11.29	124
21.Destroys things belonging to his/her family or others	94	75.81	22	17.74	8	6.45	124
22. Disobedient at home	32	25.81	84	67.74	8	6.45	124
23.Disobedient at school	46	37.09	74	59.68	4	3.22	124
24.Doesn't eat well	34	27.42	48	38.71	42	33.87	124
25.Doesn't get along with other kids	60	48.39	46	37.09	18	14.52	124
26. Doesn't seem to feel guilty after misbehaving	38	30.64	28	22.58	58	46.77	124
27.Easily jealous	66	53.22	54	43.55	4	3.22	124
28. Breaks rules at home, school, or elsewhere	40	32.26	80	64.52	4	3.22	124
29. Fears certain animals, situations, or places, other than school (describe):	62	50	52	41.93	10	8.06	124
30. Fears going to school	106	85.48	8	6.45	10	8.06	124
31. Fears he/she might think or do something bad	118	95.16	6	4.84	0	0	124
32. Feels he/she has to be perfect	88	70.97	34	27.42	2	1.61	124
33. Feels or complains that no one loves him / her	84	67.74	38	30.64	0	0	124
34. Feels others are out to get him/her	118	95.16	6	4.84	0	0	124
35. Feels worthless or inferior	118	95.16	6	4.84	0	0	124
36.Gets hurt a lot, accident-prone	36	29.03	80	64.52	8	6.45	124
37.Gets in many fights	78	62.90	40	32.26	6	4.84	124
38.Gets teased a lot	14	11.29	80	64.52	30	24.19	124
39.Hangs around with others who get in trouble	116	93.55	6	4.84	2	1.61	124
40. Hears sound or voices that aren't there (describe):	122	98.39	2	1.61	0	0	124
41. Impulsive or acts without thinking	24	19.35	78	62.90	22	17.74	124
42.Would rather be alone than with others	50	40.32	52	41.93	22	17.74	124

43.Lying or cheating	72	58.06	48	38.71	4	3.22	124
44.Bites fingernails	28	22.58	80	64.52	16	12.90	124
45.Nervous, highstrung, or tense	80	64.52	40	32.26	4	3.22	124
46.Nervous movements or twitching (describe):	112	90.32	8	6.45	4	3.22	124
47.Nightmares	118	95.16	4	3.22	2	1.61	124
48.Not liked by other kids	90	72.58	30	24.19	6	4.84	124
49.Constipated, doesn't move bowels	40	32.26	82	66.13	2	1.61	124
50.Too fearful or anxious	60	48.39	60	48.39	4	3.22	124
51.Feels dizzy or lightheaded	108	87.09	12	9.68	4	3.22	124
52.Feels too guilty	98	79.03	8	6.45	0	0	124
53.Overeating	34	27.42	82	66.13	8	6.45	124
54.Overtired without good reason	66	53.22	56	45.16	2	1.61	124
55. Overweight	102	82.26	18	14.52	4	3.22	124
56.A.Physical problems without known medical cause: Aches or pains (not stomach or headaches)	112	90.32	12	9.68	0	0	124
56.B. Headaches	38	30.64	84	67.74	2	1.61	124
56.C. Nausea, feels sick	92	74.19	32	25.81	0	0	124
56.D.Problems with eyes (not if corrected by glasses) (describe):	116	93.55	2	1.61	6	4.84	124
56.E.Rashes or other skin problems	90	72.58	28	22.58	6	4.84	124
56.F.Stomachaches	30	24.19	90	72.58	4	3.22	124
56.G.Vomiting, throwing up	94	75.81	28	22.58	2	1.61	124
56.H.Other (describe):	122	98.39	2	1.61	0	0	124
57.Physically attacks people	44	35.48	74	59.68	6	4.84	124
58.Picks nose, skin, or other parts of body (describe):	68	54.84	52	41.93	4	3.22	124
59.Plays with own sex parts in public	112	90.32	8	6.45	4	3.22	124
60.Plays with own sex parts too much	98	79.03	24	19.35	2	1.61	124
61.Poor school work	22	17.74	42	33.87	60	48.39	124
62.Poorly coordinated or clumsy	16	12.90	62	50	46	37.09	124
63.Prefers being with older kids	8	6.45	80	64.52	36	29.03	124
64.Prefers being with younger kids	6	4.84	78	62.90	40	32.26	124
65.Refuses to talk	90	72.58	20	16.13	14	11.29	124
66.Repeats certain acts over and over; compulsions (describe):	58	46.77	58	46.77	8	6.45	124
67.Runs away from home	98	79.03	18	14.52	8	6.45	124
68.Screams a lot	44	35.48	66	53.22	14	11.29	124
69.Secretive, keeps things to self	94	75.81	24	19.35	6	4.84	124
70.Sees things that aren't there (describe):	122	98.39	2	1.61	0	0	124
71.Self-conscious or easily	102	82.26	20	16.13	2	3.22	124

embarrassed							
72.Sets fires	118	95.16	6	4.84	0	0	124
73.Sexual problems (describe):	120	96.77	4	3.22	0	0	124
74.Showing off or clowning	108	87.09	10	8.06	6	4.84	124
75.Too shy or timid	50	40.32	60	48.39	14	11.29	124
76.Sleeps less than most kids	106	85.48	22	17.74	4	3.22	124
77.Sleeps more than most kids during day and/or night (describe):	118	95.16	4	3.22	2	1.61	124
78.Inattentive or easily distracted	16	12.90	64	51.61	46	37.09	124
79. Speech problem (describe):	58	46.77	24	19.35	42	33.87	124
80.Stares blankly	86	69.35	32	25.81	6	4.84	124
81.Steals at home	122	98.39	2	1.61	0	0	124
82.Steals outside the home	124	100	0	0	0	0	124
83.Stores up too many things he/she doesn't need (describe):	98	79.03	22	17.74	4	3.22	124
84.Strange behavior (describe):	102	82.26	22	17.74	0	0	124
85.Strange ideas (describe):	116	93.55	8	6.45	0	0	124
86.Stubborn, sullen, or irritable	32	25.81	76	61.29	16	12.90	124
87.Sudden changes in mood or feelings	12	9.68	100	80.64	12	9.68	124
88.Sulks a lot	78	62.90	44	35.48	2	3.22	124
89.Suspicious	96	77.42	32	25.81	0	0	124
90.Swearing or obscene language	106	85.48	18	14.52	0	0	124
91.Talks about killing self	116	93.55	8	6.45	0	0	124
92.Talks or walks in sleep (describe):	118	95.16	6	4.84	0	0	124
93. Talks too much	46	37.09	68	54.84	10	8.06	124
94.Teases a lot	16	12.90	80	64.52	28	22.58	124
95.Temper tantrums or hot temper	10	8.06	94	75.81	20	16.13	124
96.Thinks about sex too much	118	95.16	6	4.84	0	0	124
97.Threatens people	72	58.06	48	38.71	4	3.22	124
98.Thumb-sucking	34	27.42	78	62.90	12	9.68	124
99.Smokes, chews, or sniffs tobacco	122	98.39	2	1.61	0	0	124
100.Trouble sleeping (describe):	104	83.87	18	14.52	2	1.61	124
101.Truancy, skips school	120	96.77	2	1.61	2	1.61	124
102.Underactive, slow moving, or lacks energy	54	43.55	42	33.87	28	22.58	124
103.Unhappy, sad, or depressed	84	67.74	38	30.64	2	1.61	124
104.Unusually loud	30	24.19	86	69.35	8	6.45	124
105.Uses drugs for nonmedical purposes (don't include alcohol or tobacco) (describe):	124	100	0	0	0	0	124
106.Vandalism	96	77.42	20	16.13	8	6.45	124
107.Wets self during the day	112	90.32	8	6.45	4	3.22	124

108.Wets the bed	34	27.42	84	67.74	6	4.84	124
109.Whining	24	19.35	96	77.42	4	3.22	124
110.Wishes to be of opposite sex	112	90.32	12	9.68	0	0	124
111.Withdrawn, doesn't get involved with others	82	66.13	38	30.64	4	3.22	124
112.Worries	106	85.48	18	14.52	0	0	124
113.Please write in any problems your child has that were not listed above:	124	100	0	0	0	0	124

Table No. 4.1.1.

INTERPRETATION: From the above mentioned table it was noted that developmentally disabled school enrolled children possess almost all types of problem behaviours prescribed by Achenbach and Rescorla (2001) in Child Behaviour Checklist (CBCL). Out of 113 types of problem behaviours only following 58 problem behaviours are either absent or are rare among the 124 respondents having developmental disabilities. These are alcohol consumption (100%), argues a lot (79.03%), bowel movements outside the toilet (72.58%), bragging, boosting (72.58%), confused (77.42%), cruel to animals (82.26%), cruelty, bulling or meanness to others (72.58%), day dreaming (96.77%), suicidal attempt (96.77%), destructive behaviours their things (75.81%), fears going to school (85.04%), fears for bad thinking (95.16%), feeling him perfect (70.97%), feels others are out to get him/ her (95.16%), feels worthless or inferior (95.16%), hangs around in others to get him trouble (93.55%), hear sounds and voices that are not there (98.39%), nervous movement (90.32%), nightmares (95.16%), not liked by other kids (72.58%), lightheaded (87.09%), feeling guilty (79.09%), over weight (82.26%), stomach pain and headache (90.32%), nausea (74.19%), problems in eyes (93.55%), skin problems (72.58%), vomiting (75.81%), playing in sex part in public (90.32%), playing with too much own sex part (79.03%), refuses to talk (72.58%), runs away from home (79.03%), keeps things to self (75.81%), sees thing that are not there (98.39%), self-conscious (82.26%), set fires (95.16%), sexual problems (96.07%), clowning (87.09%), sleep disturbances (85.48%), more sleeping behaviour (95.16%), steeling behaviour (98.39%), steeling behaviour outside the home (100%), storing unneeded so many things (79.03%), strange behaviour (82.68%), strange ideas (93.55%), suspicious (77.42%), using of obscene (85.48%), talking about killing self (93.55%), talks / walks in sleep (95.16%), thinking too much about sex (95.16%), smoking, chewing, sniffing tobacco (98.39%), trouble

sleeping (83.38%), truancy (96.77%), drug abuse (100%) , vandalism (77.42%), wets self during the day (90.32%), wishes to be of opposite sex (90.32%), worries (85.48%).

4.2. DESCRIPTIVE STATISTICAL ANALYSIS:

Table No. 4.2.1. Table showing analysis of independent variable (Gender) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
GENDER	Boys	100	5638	56.38	16.04
	Girls	24	1524	63.5	4.85

Table No. 4.2.1.

Figure: 4.2.1. Graphical presentation showing analysis of independent variable (Gender) on the basis of problem behaviours of developmentally disabled children:

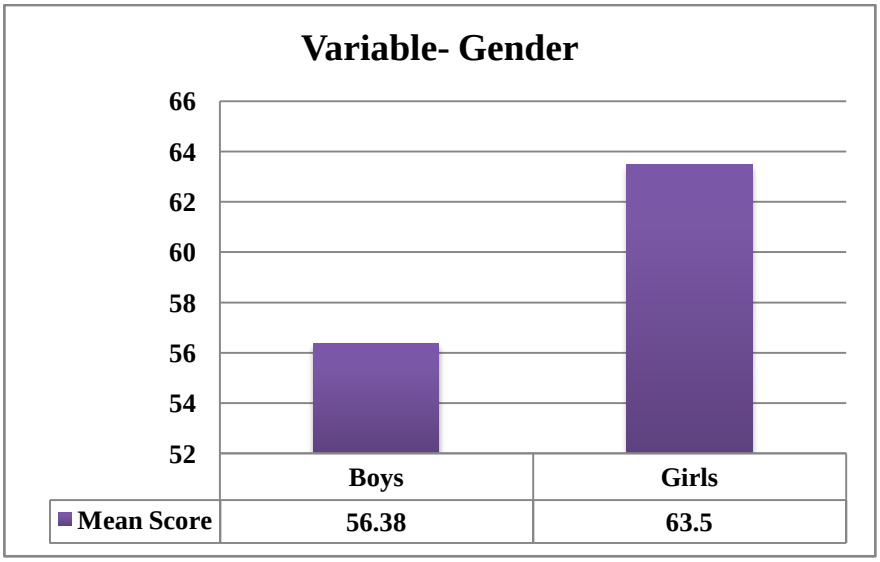

Figure: 4.2.1.

INTERPRETATION: The above table (no.-4.2.1.) and graphical representation (figure no. 4.2.1.) show that developmentally disabled boys have a lower mean score of problem behaviours (mean=56.38) than girls (mean= 63.5). The result suggests that developmentally disabled girls possess more problem behaviour than the boys.

Table No. 4.2.2. Table showing analysis of independent variable (Age) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
AGE	6-12 Years	22	994	45.18	12.79
	13-18 Years	102	6166	60.47	15.34

Table No. 4.2.2.

Figure: 4.2.2. Graphical presentation showing analysis of independent variable (Age) on the basis of problem behaviours of developmentally disabled children:

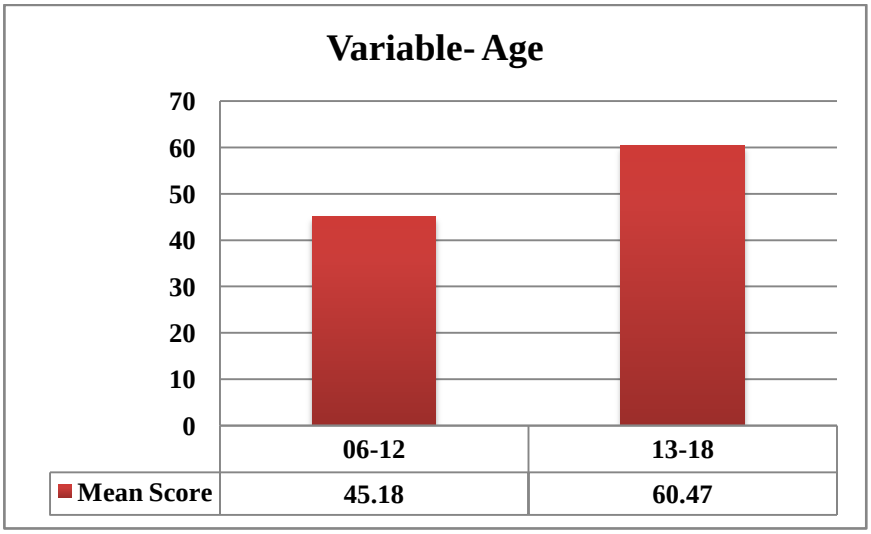

Figure: 4.2.2.

INTERPRETATION: The above table (no.- 4.2.2.) and graphical representation (figure no. 4.2.2.) show that aged developmentally disabled children (13-18 years) possess more problem behaviour than the younger aged (6-12 years) developmentally disabled children.

Table No. 4.2.3. Table showing analysis of independent variable (Educational Standard) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
EDUCATIONAL STANDARD	Pre-primary	14	654	45.71	13.40
	Primary	44	2420	55	18.65
	Pre-vocational	66	4088	61.94	12.80

Table No. 4.2.3.

Figure: 4.2.3. Graphical presentation showing analysis of independent variable (Educational Standard) on the basis of problem behaviours of developmentally disabled children:

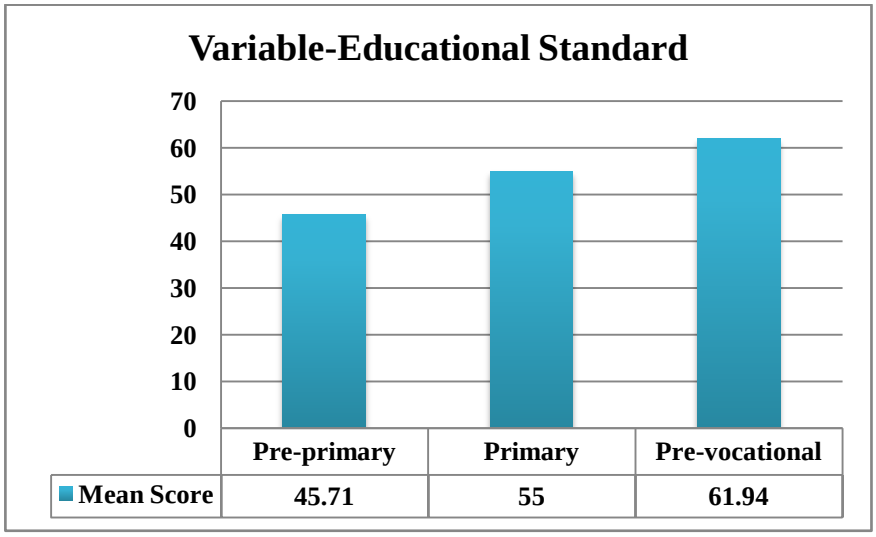

Figure: 4.2.3.

INTERPRETATION: Regarding educational standard of the developmentally disabled respondent were it was noted that the respondents in the pre-vocational standard possess more problem behaviours followed by primary standard and pre-primary standard respectively.

Table No. 4.2.4. Table showing analysis of independent variable (Habitat) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
HABITAT	Rural	72	4260	59.17	15.30
	Urban	52	2902	55.81	16.77

Table No. 4.2.4.

Figure: 4.2.4. Graphical presentation showing analysis of independent variable (Habitat) on the basis of problem behaviours of developmentally disabled children:

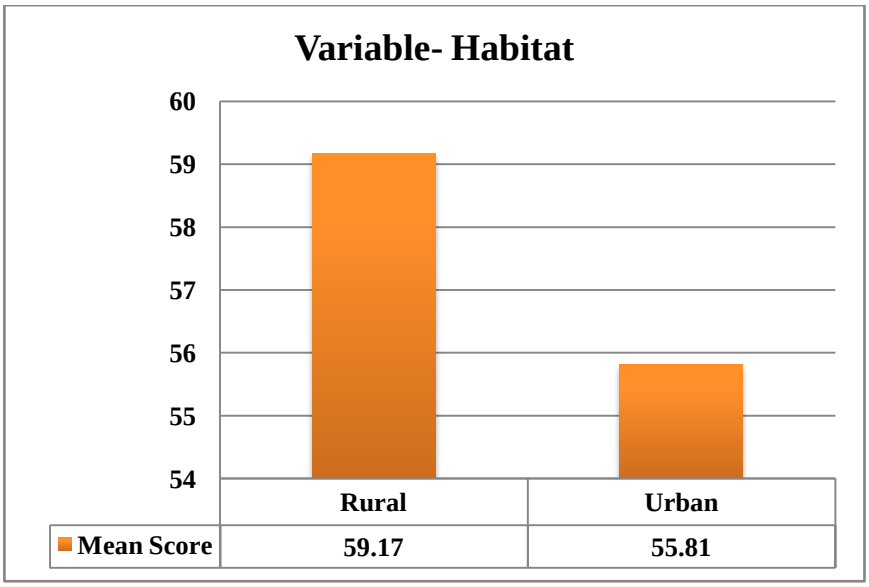

Figure: 4.2.4.

INTERPRETATION: When habitat of the samples were considered it was found that the developmentally disabled children who were from rural habitat possess more problem behaviour than the developmentally disabled children from urban habitat.

Table No. 4.2.5. Table showing analysis of independent variable (Family Structure) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
FAMILY STRUCTURE	Joint	22	1064	48.36	17.24
	Nuclear	102	6098	59.78	14.99

Table No. 4.2.5.

Figure: 4.2.5. Graphical presentation showing analysis of independent variable (Family Structure) on the basis of problem behaviours of developmentally disabled children:

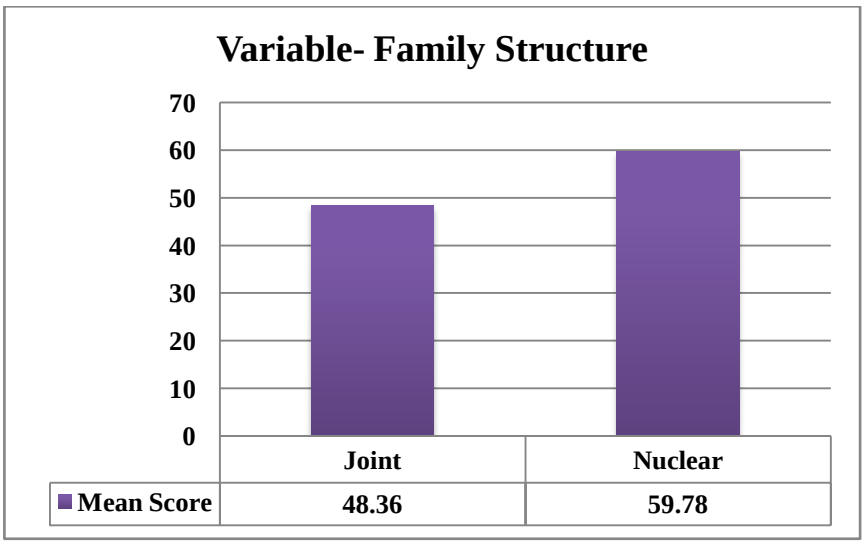

Figure: 4.2.5.

INTERPRETATION: 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.

Table No. 4.2.6. Table showing analysis of independent variable (Family Income of the Parents) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
FAMILY INCOME OF THE PARENTS	5001/- - 10,000/-	54	3522	65.22	13.10
	10,001/- - Above	70	3640	52.00	15.69

Table No. 4.2.6.

Figure: 4.2.6. Graphical presentation showing analysis of independent variable (Family Income of the Parents) on the basis of problem behaviours of developmentally disabled children:

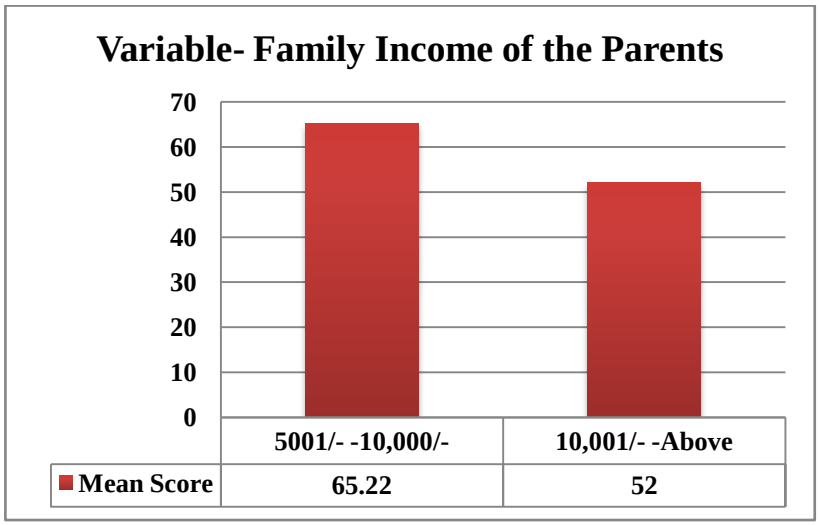

Figure: 4.2.6.

INTERPRETATION: When family income of the parents of the samples were considered it was found that the families having less monthly family income possess more problem behaviours.

Table No. 4.2.7. Table showing analysis of independent variable (Parental Education) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
PARENTAL EDUCATION	Up to 10th standard	38	2432	64.00	13.86
	Higher Secondary	20	1324	66.2	10.59
	Graduate	66	3406	51.60	15.38

Table No. 4.2.7.

Figure: 4.2.7. Graphical presentation showing analysis of independent variable (Parental Education) on the basis of problem behaviours of developmentally disabled children:

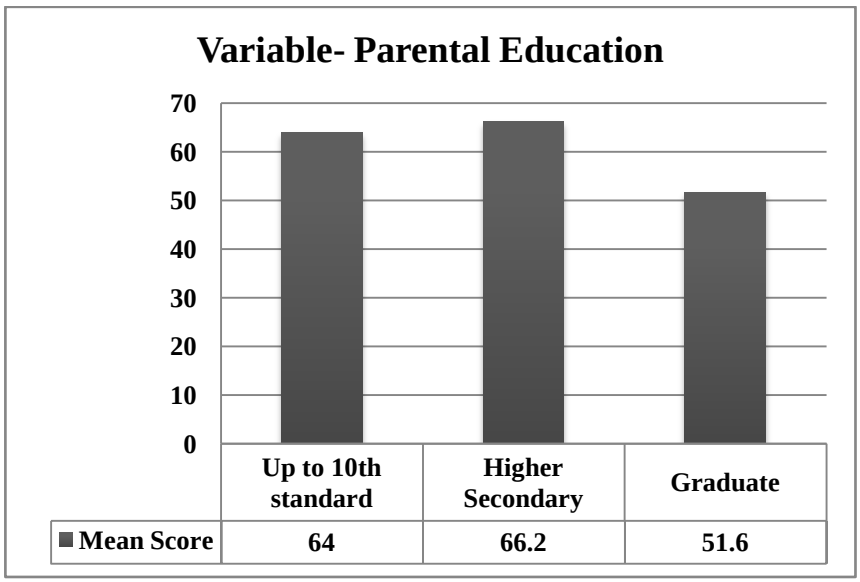

Figure: 4.2.7.

INTERPRETATION: Regarding parental education of developmentally disabled children it was noted that the parents having higher secondary standard possess more problem behaviours followed by upto 10th standard and graduate respectively.

Table No. 4.2.8. Table showing analysis of independent variable (Birth order of the child) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
BIRTH ORDER OF THE CHILD	1st	66	3730	56.52	15.49
	2nd	58	3432	59.17	16.49

Table No. 4.2.8.

Figure: 4.2.8. Graphical presentation showing analysis of independent variable (Birth order of the child) on the basis of problem behaviours of developmentally disabled children:

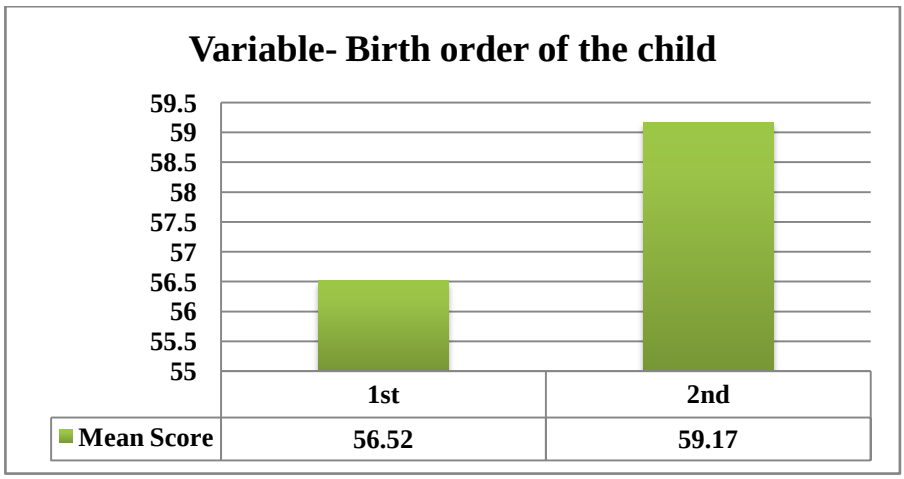

Figure: 4.2.8.

INTERPRETATION: When birth order of the samples were considered it was found that the developmentally disabled who are in birth order 2nd position possess more problem behaviours.

Table No. 4.2.9. Table showing analysis of independent variable (Age of onset of disability) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
AGE OF ONSET OF DISABILITY	0-3	110	6488	58.98	14.99
	3+ -6	14	562	40.14	12.52

Table No. 4.2.9.

Figure: 4.2.9. Graphical presentation showing analysis of independent variable (Age of onset of disability) on the basis of problem behaviours of developmentally disabled children:

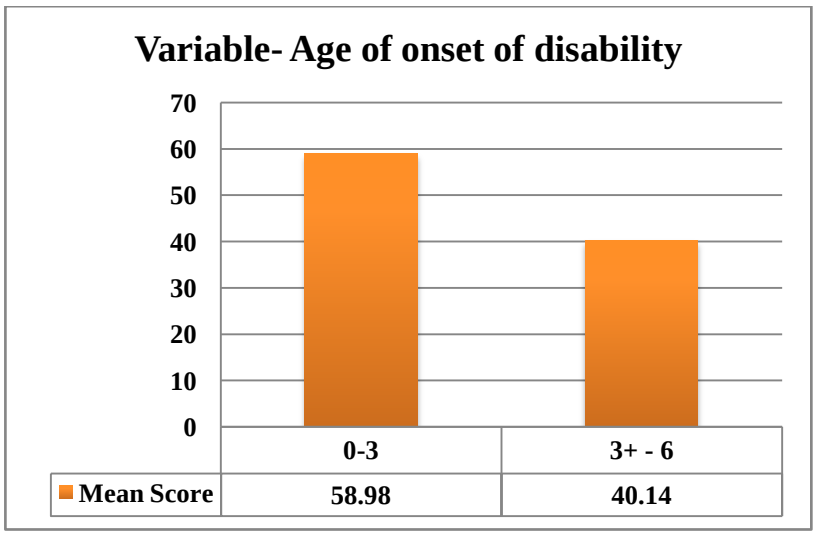

Figure: 4.2.9.

INTERPRETATION: 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).

Table No. 4.2.10. Table showing analysis of independent variable (Availability of early intervention facilities) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
AVAILABILITY OF EARLY INTERVENTION FACILITIES	Yes	24	1222	50.92	20.47
	No	100	5940	59.40	14.27

Table No. 4.2.10.

Figure: 4.2.10. Graphical presentation showing analysis of independent variable (Availability of early intervention facilities) on the basis of problem behaviours of developmentally disabled children:

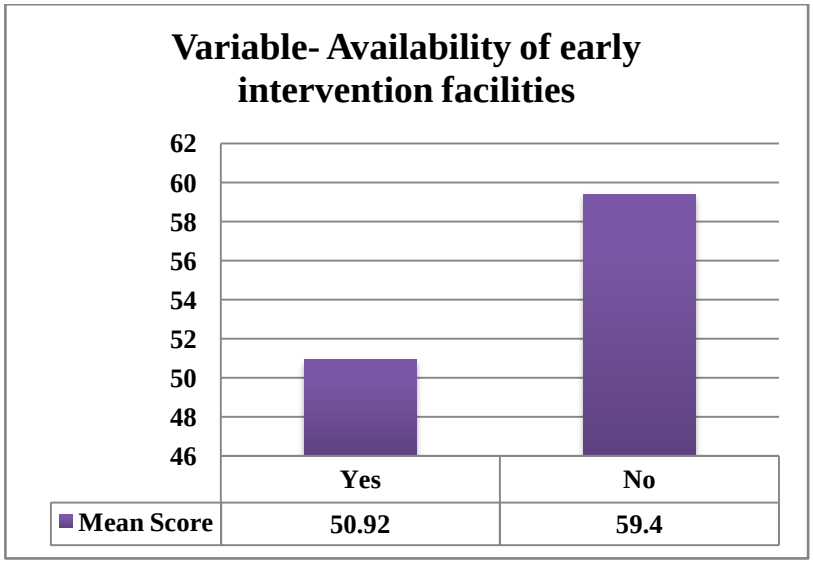

Figure: 4.2.10.

INTERPRETATION: When availability of early intervention facilities were considered it was noted that the children who did not receive any early intervention facilities possess more problem behaviour.

Table No. 4.2.11. Table showing analysis of independent variable (Availability of parental counselling) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
AVAILABILITY OF PARENTAL COUNSELLING	Yes	28	1458	52.07	18.88
	No	96	5704	59.42	14.68

Table No. 4.2.11.

Figure: 4.2.11. Graphical presentation showing analysis of independent variable (Availability of parental counselling) on the basis of problem behaviours of developmentally disabled children:

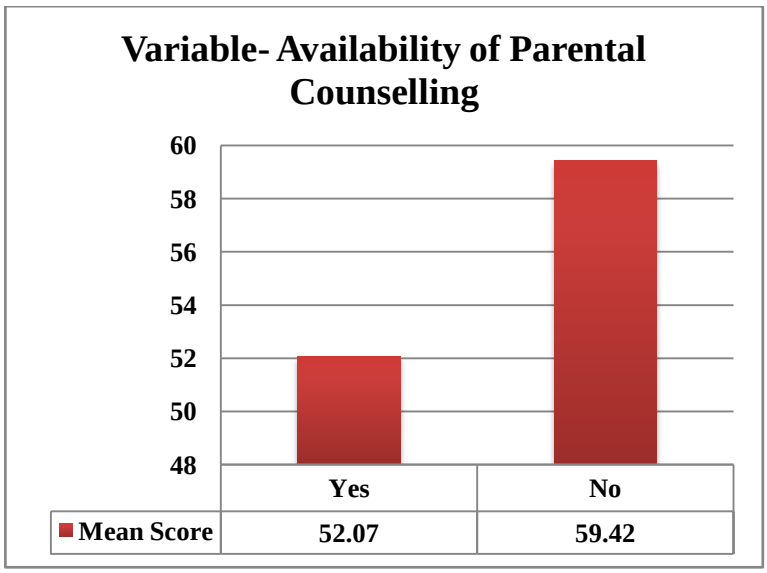

Figure: 4.2.11.

INTERPRETATION: In respect to availability of parental counselling for the parents of developmentally disabled children it was noted that the parents who did not received any counseling, their children are more habituated in problem behaviours.

Table No. 4.2.12. Table showing analysis of independent variable (Availability of parental training on parental involvement) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
AVAILABILITY OF PARENTAL TRAINING ON PARENTAL INVOLVEMENT	Yes	10	496	49.6	14.29
	No	114	6666	58.47	15.97

Table No. 4.2.12.

Figure: 4.2.12. Graphical presentation showing analysis of independent variable (Availability of parental training on parental involvement) on the basis of problem behaviours of developmentally disabled children:

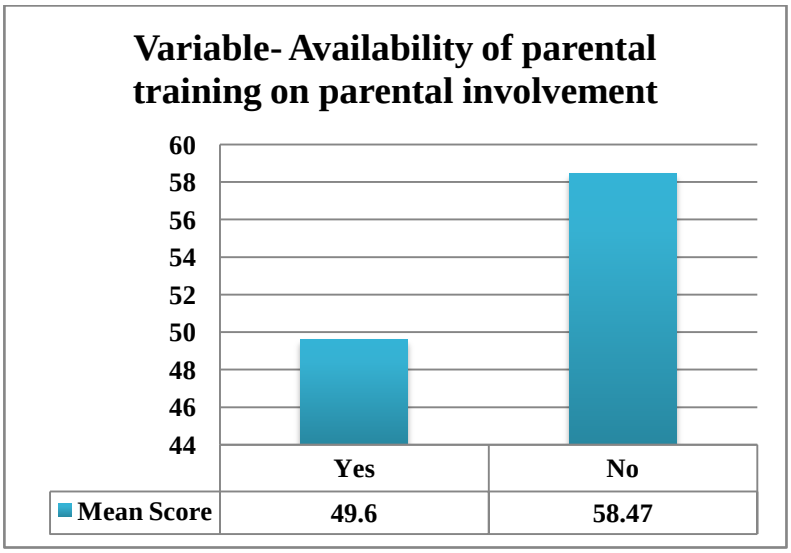

Figure: 4.2.12.

INTERPRETATION: When availability of parental training on parental involvement were considered it was noted that the parents who did not get any training about nurturing their disabled child, their children possess more problem behaviours.

Table No. 4.2.13. Table showing analysis of independent variable (Availability of parental support) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
AVAILABILITY OF PARENTAL SUPPORT	Yes	112	6520	58.21	15.86
	No	12	642	53.5	16.90

Table No. 4.2.13.

Figure: 4.2.13. Graphical presentation showing analysis of independent variable (Availability of parental support) on the basis of problem behaviours of developmentally disabled children:

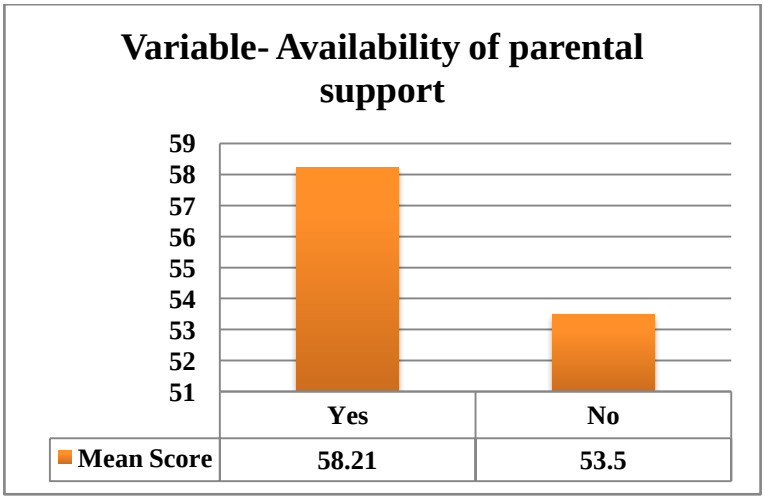

Figure: 4.2.13.

INTERPRETATION:

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

Table No. 4.2.14. Table showing analysis of independent variable (Availability of community support) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
AVAILABILITY OF COMMUNITY SUPPORT	Yes	94	5258	55.94	13.20
	No	30	1904	63.47	21.65

Table No. 4.2.14.

Figure: 4.2.14. Graphical presentation showing analysis of independent variable (Availability of community support) on the basis of problem behaviours of developmentally disabled children:

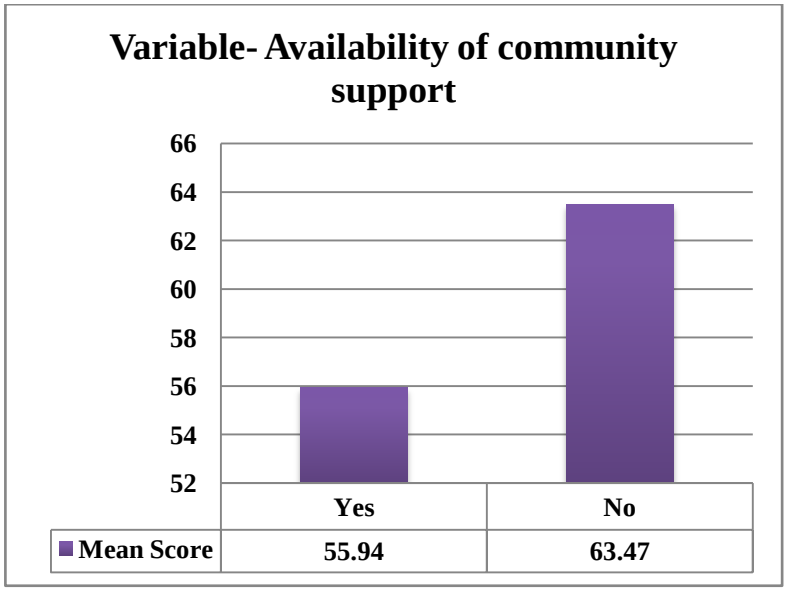

Figure: 4.2.14.

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

Table No. 4.2.15. Table showing analysis of independent variable (Range of Disability) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
RANGE OF DISABILITY	MILD	38	1724	45.37	14.95
	MODERATE	58	3624	62.48	14.57
	SEVERE	28	1814	64.78	9.45

Table No. 4.2.15.

Figure: 4.2.15. Graphical presentation showing analysis of independent variable (Range of Disability) on the basis of problem behaviours of developmentally disabled children:

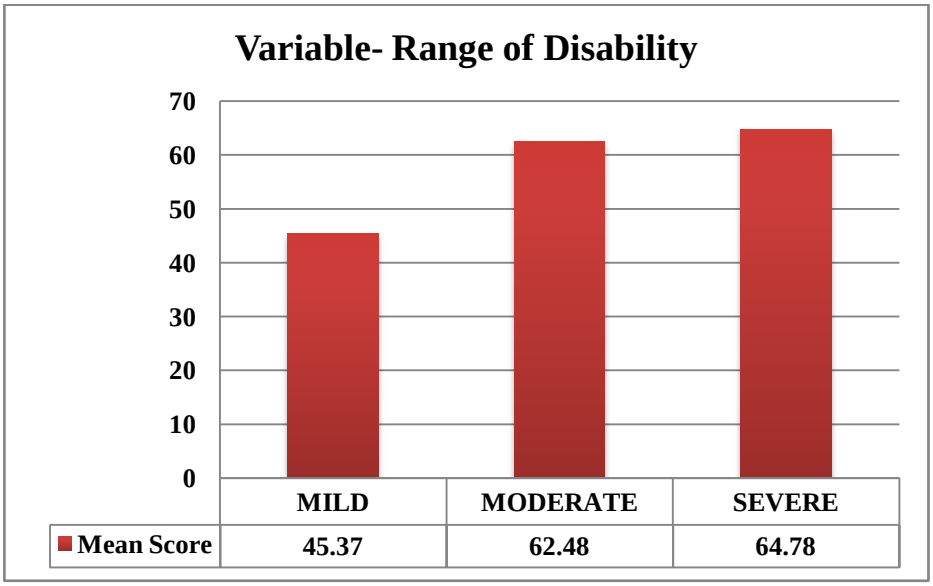

Figure: 4.2.15.

INTERPRETATION: Regarding range of disability of the developmentally disabled respondents it was noted that the severely disabled children possess more problem behaviours followed by moderate and mild category of disability.

Table No. 4.2.16. Table showing analysis of independent variable (Types of Disability) on the basis of problem behaviours of developmentally disabled children:

VARIABLE	TYPES	TOTAL NO.	TOTAL SCORE	MEAN	SD
TYPES OF DISABILITY	ID + Autism + Speech and Language Disability	18	984	54.67	16.83
	ID + HI + VI + Speech and Language Disability	06	482	80.33	20.42
	Autism + ADHD + Speech and Language Disability	08	444	55.5	11.88
	Intellectual Disability (ID)	24	1256	52.33	10.44
	ID + Speech and Language Disability	40	2258	56.45	15.87
	ID + CP + Speech and Language Disability	28	1738	62.07	14.43

Table No. 4.2.16.

Figure: 4.2.16. Graphical presentation showing analysis of independent variable (Types of Disability) on the basis of problem behaviours of developmentally disabled children:

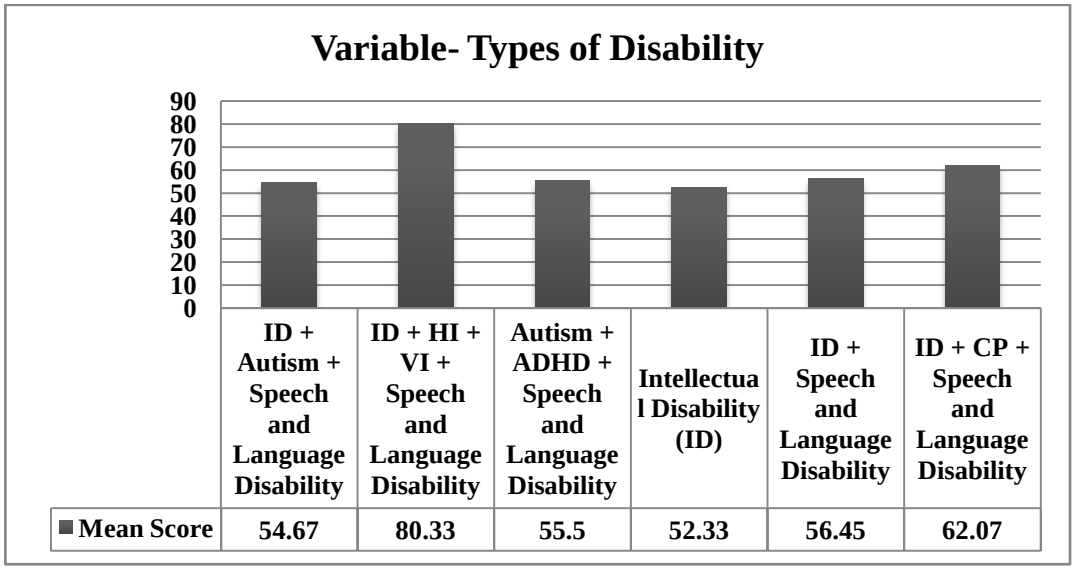

Figure: 4.2.16.

INTERPRETATION: Regarding types of problem behaviours it was found that the developmentally disabled child having intellectual disability, hearing impairment, visual impairment and speech and language disability possess maximum types of problem behaviours followed by developmentally disabled having intellectual

disability, cerebral palsy and speech and language disability. The other groups of developmentally disabled children possess comparatively less types of problem behaviours which are mentioned in the above table.

4.3. INFERENTIAL STATISTICAL ANALYSIS:

$H_0$1. There is no significant median difference between developmentally disabled boys and girls on the basis of their problem behaviours.

Table No.4.3.1. Table showing median test between developmentally disabled boys and girls on the basis of their problem behaviours:

VARIABLE	GROUP	TOTAL NO	MEAN	MEDIAN	SD	df	CRITICAL VALUE	Remark 0.05 level
GENDER	**BOYS**	100	56.38	2.59	16.04	1	3.84	**Accepted**
	GIRLS	24	63.5		4.85			

Table No.4.3.1.

The above table reveals that the calculated value is 2.59. This is below the critical value 3.84. Therefore, the null hypothesis is accepted and there is no significant median difference observed between the two groups at 0.05 level.

$H_0$2. There is no significant median difference between developmentally disabled different age groups children on the basis of their problem behaviours.

Table No.4.3.2. Table showing median test between developmentally disabled different age groups children on the basis of their problem behaviours:

VARIABLE	GROUP	TOTAL NO	MEAN	MEDIAN	SD	df	CRITICAL VALUE	Remark 0.05 level
AGE	**6-12**	22	45.18	14.79	12.79	1	3.84	**Rejected**
	13-18	102	60.47		15.34			

Table No.4.3.2.

The above table reveals that the calculated value is 14.79. This is above the critical value 3.84. Therefore, the null hypothesis is rejected and there is significant median difference observed between the two groups at 0.05 level.

$H_0$3. There is no significant relationship between problem behaviours of developmentally disabled children and their Educational Standard.

Table No. 4.3.3. Table showing chi-squire test between problem behaviours of developmentally disabled children and their Educational Standard:

VARIABLE	GROUP	TOTAL NO	MEAN	$\chi 2$	SD	df	CRITICAL VALUE	Remark 0.05 level
EDUCATIONAL STANDARD	PRE-PRIMARY	14	46.71	32.96	13.40	2	5.99	Rejected
	PRIMARY	44	55		18.65			
	PRE-VOCATIONAL	66	61.94		12.80			

Table No.4.3.3.

The above table shows the expected and observed frequencies of problem behaviour scores based on educational standard. The result reveals that there exists significant associations between the scores of problem behaviours and educational standard of developmentally disabled children. Therefore, the null hypothesis is rejected in favour of the alternative hypothesis 'there is exist significant difference among problem behaviours of developmentally disabled children on the basis of their educational standard' at 0.05 level.

$H_0$4. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their Habitat.

Table No. 4.3.4. Table showing median test between problem behaviours of developmentally disabled children on the basis of their Habitat:

VARIABLE	GROUP	TOTAL NO	MEAN	MEDIAN	SD	df	CRITICAL VALUE	Remark 0.05 level
HABITAT	RURAL	72	59.17	0.05	15.30	1	3.84	Accepted
	URBAN	52	55.81		16.77			

Table No.4.3.4.

The above table reveals that the calculated value is 0.05. This is below the critical value 3.84. Therefore, the null hypothesis is accepted and there is no significant median difference observed between the two groups at 0.05 level.

$H_0$5. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their Family Structure.

Table No. 4.3.5. Table showing median test between problem behaviours of developmentally disabled children on the basis of theirFamily Structure:

VARIABLE	GROUP	TOTAL NO	MEAN	MEDIAN	SD	df	CRITICAL VALUE	Remark 0.05 level
FAMILY STRUCTURE	JOINT	22	48.36	3.49	17.24	1	3.84	Accepted
	NUCLEAR	102	59.78		14.99			

The above table reveals that the calculated value is 3.49. This is below the critical value 3.84. Therefore, the null hypothesis is accepted and there is no significant median difference observed between the two groups at 0.05 level.

$H_0$6. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their Family Income.

Table No. 4.3.6. Table showing median test between problem behaviours of developmentally disabled children on the basis of their Family Income:

VARIABLE	GROUP	TOTAL NO	MEAN	MEDIAN	SD	df	CRITICAL VALUE	Remark 0.05 level
FAMILY INCOME OF THE PARENTS	5001-10,000/-	54	65.22	12.86	13.10	1	3.84	Rejected
	10,001-ABOVE	70	52.00		15.69			

Table No.4.3.6.

The above table reveals that the calculated value is 12.86. This is above the critical value 3.84. Therefore, the null hypothesis is rejected and there is significant median difference observed between the two groups at 0.05 level.

$H_0$7. There is no significant relationship between problem behaviours of developmentally disabled children and their Parental Education.

Table No. 4.3.7. Table showing chi-squire test between problem behaviours of developmentally disabled children and their Parental Education:

VARIABLE	GROUP	TOTAL NO	MEAN	$\chi 2$	SD	df	CRITICAL VALUE	Remark 0.05 level
PARENTAL EDUCATION	UP TO 10^{TH} STANDARD	38	64	26	13.86	2	5.99	Rejected
	HIGHER SECONDARY	20	66.2		10.59			
	GRADUATE	66	51.60		15.38			

Table No.4.3.7.

The above table shows the expected and observed frequencies of problem behaviour scores based on parental education. The result reveals that there exists significant associations between the scores of problem behaviours and parental education of developmentally disabled children. Therefore, the null hypothesis is rejected in favour of the alternative hypothesis 'there is exist significant difference among problem behaviours of developmentally disabled children on the basis of their parental education' at 0.05 level.

$H_0$8. There is no significant median difference among problem behaviours of developmentally disabled children on the basis of their Birth Order.

Table No. 4.3.8. Table showing median test between problem behaviours of developmentally disabled children on the basis of their Birth Order:

VARIABLE	GROUP	TOTAL NO	MEAN	MEDIAN	SD	df	CRITICAL VALUE	Remark 0.05 level
BIRTH ORDER OF THE CHILD	1^{ST}	66	56.52	8.09	15.49	1	3.84	Rejected
	2^{ND}	58	59.17		16.49			

Table No.4.3.8.

$H_0$9. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their Age of onset of disability.

Table No. 4.3.9. Table showing median test between problem behaviours of developmentally disabled children on the basis of theirAge of onset of disability:

VARIABLE	GROUP	TOTAL NO	MEAN	MEDIAN	SD	df	CRITICAL VALUE	Remark 0.05 level
AGE OF ONSET OF DISABILITY	0-3	110	58.98	10.25	14.99	1	3.84	Rejected
	3+ -6	14	40.14		12.52			

Table No.4.3.9.

The above table reveals that the calculated value is 10.25. This is above the critical value 3.84. Therefore, the null hypothesis is rejected and there is significant median difference observed between the two groups at 0.05 level.

$H_0$10. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their Availability of early intervention facilities.

Table No. 4.3.10. Table showing median test between problem behaviours of developmentally disabled children on the basis of their Availability of early intervention facilities:

VARIABLE	GROUP	TOTAL NO	MEAN	MEDIAN	SD	df	CRITICAL VALUE	Remark 0.05 level
AVAILABILITY OF EARLY INTERVENTION FACILITIES	YES	24	50.92	3.49	20.47	1	3.84	Accepted
	NO	100	59.40		14.27			

Table No.4.3.10.

The above table reveals that the calculated value is 3.49. This is below the critical value 3.84. Therefore, the null hypothesis is accepted and there is no significant median difference observed between the two groups at 0.05 level.

$H_0$11. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their Availability of parental counselling.

Table No. 4.3.11. Table showing median test between problem behaviours of developmentally disabled children on the basis of their Availability of parental counselling:

VARIABLE	GROUP	TOTAL NO	MEAN	MEDIAN	SD	df	CRITICAL VALUE	Remark 0.05 level
AVAILABILITY OF PARENTAL COUNSELLING	YES	28	52.07	1.72	18.88	1	3.84	Accepted
	NO	96	59.42		14.68			

Table No.4.3.11.

The above table reveals that the calculated value is 1.72. This is below the critical value 3.84. Therefore, the null hypothesis is accepted and there is no significant median difference observed between the two groups at 0.05 level.

$H_0$12. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their Availability of training on parental involvement.

Table No. 4.3.12. Table showing median test between problem behaviours of developmentally disabled children on the basis of their Availability of training on parental involvement:

VARIABLE	GROUP	TOTAL NO	MEAN	MEDIAN	SD	df	CRITICAL VALUE	Remark 0.05 level
AVAILABILITY OF TRAINING ON PARENTAL INVOLVEMENT	YES	10	49.6	2.64	14.29	1	3.84	Accepted
	NO	114	58.47		15.97			

Table No.4.3.12.

The above table reveals that the calculated value is 2.64. This is below the critical value 3.84. Therefore, the null hypothesis is accepted and there is no significant median difference observed between the two groups at 0.05 level.

$H_0$13. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their Availability of parental support.

Table No. 4.3.13. Table showing median test between problem behaviours of developmentally disabled children on the basis of their Availability of parental support:

VARIABLE	GROUP	TOTAL NO	MEAN	MEDIAN	SD	df	CRITICAL VALUE	Remark 0.05 level
AVAILABILITY OF PARENTAL SUPPORT	YES	112	58.21	0.01	15.86	1	3.84	Accepted
	NO	12	53.5		16.90			

Table No.4.3.13.

The above table reveals that the calculated value is 0.01. This is below the critical value 3.84. Therefore, the null hypothesis is accepted and there is no significant median difference observed between the two groups at 0.05 level.

$H_0$14. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their Availability of community support.

Table No. 4.3.14. Table showing median test between problem behaviours of developmentally disabled children on the basis of their Availability of community support:

VARIABLE	GROUP	TOTAL NO	MEAN	MEDIAN	SD	df	CRITICAL VALUE	Remark 0.05 level
AVAILABILITY OF COMMUNITY SUPPORT	YES	94	55.94	4.06	13.20	1	3.84	Rejected
	NO	30	63.47		21.65			

Table No.4.3.14.

The above table reveals that the calculated value is 4.06. This is above the critical value 3.84. Therefore, the null hypothesis is rejected and there is significant median difference observed between the two groups at 0.05 level.

$H_0$15. There is no significant relationship between problem behaviours of developmentally disabled children and their Range of Disability.

Table No. 4.3.15. Table showing chi-squire test among problem behaviours of developmentally disabled children on the basis of their Range of Disability:

VARIABLE	GROUP	TOTAL NO	MEAN	$\chi 2$	SD	df	CRITICAL VALUE	Remark 0.05 level
RANGE OF DISABILITY	MILD	38	45.37	7.02	14.95	2	5.99	Rejected
	MODERATE	58	62.48		14.57			
	SEVERE	28	64.78		9.45			

Table No.4.3.15.

The above table shows the expected and observed frequencies of problem behaviours scores based on range of disability. The result reveals that there exists significant associations between the scores of problem behaviours and range of disability of developmentally disabled children. Therefore, the null hypothesis is rejected in favour of the alternative hypothesis ‘there is exist significant difference among problem behaviours of developmentally disabled children on the basis of their range of disability’ at 0.05 level.

$H_0$16. There is no significant relationship between problem behaviours of developmentally disabled children and their Types of Disability.

Table No. 4.3.16. Table showing chi-squire test between problem behaviours of developmentally disabled children and their Types of Disability:

VARIABLE	GROUP	TOTAL NO	MEAN	$\chi 2$	SD	df	CRITICAL VALUE	Remark 0.05 level
TYPES OF DISABILITY	ID + Autism + Speech and Language Disability	18	54.67	39.74	16.83	5	11.07	**Rejected**
	ID + HI + VI + Speech and Language Disability	06	80.33		20.42			
	Autism + ADHD + Speech and Language Disability	08	55.5		11.88			
	Intellectual Disability (ID)	24	52.33		10.44			
	ID + Speech and Language Disability	40	56.45		15.87			
	ID + CP + Speech and Language Disability	28	62.07		14.43			

Table No.4.3.16.

The above table shows the expected and observed frequencies of problem behaviour scores based on types of disability. The result reveals that there exists significant associations between the scores of problem behaviours and types of disability of developmentally disabled children. Therefore, the null hypothesis is rejected in favour of the alternative hypothesis ‘there is exist significant difference among problem behaviours of developmentally disabled children on the basis of their types of disability’ at 0.05 level.

4.4. SUMMARY OF THE HYPOTHESES AND ITS REMARKS:

Table No. 4.4.1. Table showing summary of the hypotheses tested at a glance:

No. of the Hypotheses	Hypotheses	Remarks
$H_0$1.	There is no significant median difference between developmentally disabled boys and girls on the basis of their problem behaviours.	**Accepted**
$H_0$2.	There is no significant median difference between developmentally disabled different age groups children on the basis of their problem behaviours.	**Rejected**
$H_0$3.	There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their educational standard.	**Rejected**
$H_0$4.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their habitat.	**Accepted**
$H_0$5.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their family structure.	**Accepted**
$H_0$6.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their family incomes.	**Rejected**
$H_0$7.	There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their parental education.	**Rejected**
$H_0$8.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their birth order.	**Rejected**
$H_0$9.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their age of onset of disability.	**Rejected**

$H_0$10.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of early intervention facilities.	**Accepted**
$H_0$11.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of parental counselling.	**Accepted**
$H_0$12.	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**
$H_0$13.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of parental support.	**Accepted**
$H_0$14.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of community support.	**Rejected**
$H_0$15.	There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their range of disability.	**Rejected**
$H_0$16.	There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their types of disability.	**Rejected**

Table No. 4.4.1.

4.5. CASE HISTORIES:

Subject A is a son of 12 years age from a nuclear family of rural habitat. Parents are highly educated. The child is the 2nd baby. His disability was started in 1.5 years of age. Parents received counselling facilities, support from the family and community. Marital relationship of the parents is good. The child is accepted by his sibling, grandparents and maternal grandparents. The parents are in teaching profession. The child is identified as mild category intellectually disabled (Downs Syndrome). In spite of receiving and other facilities the child did not received any early intervention facilities.

The child possess only a few problem behaviours like- attention seeking, denying the family norms, get teased a lot, impulsive, telling lies and cheating others, feeling nervous, over tired without good reason, over eating, overweight, headache, nausea, vomiting, aggressive behaviour, players with own sex part in public, prefers being with older and younger kids, keeps things to self, inattentive, show strange behaviour, talks about strange ideas, talkative, teasing behaviour, temper-tentrum, unusually loud and speak loudly.

In spite of showing all the above mentioned problem behaviours the child is not exposed to any behaviour therapist for providing him to received support on behaviour modification neither from the special school authority nor from the parent side. It is because the parents did not received any training on parental involvement in the educational and therapeutic intervention of their baby. The special school authority did not trained up the parents about nurturing the intellectually disabled child. The parents first hear the need of their training from the present researcher. The special school authority of the child did not care about training the parents and other family members. Perhaps the special school authority did not know the importance of parental training regarding their involvement in the education and rehabilitation of disabled children.

Subject B is a son of 16 years studying in the pre-vocational class of a special school from rural habitat. The child is from nuclear families and is the only child of his parents. Both the parents are highly educated. In 1.5 years of age the child is first detected by the child specialist as severe intellectually disabled with autism. Parental marital relationship is very good. After identification of subject's disability the parents did not get any counselling / early intervention facilities, neither they received any training on parental involvement in the nurturing and rehabilitation of their disabled child. Parents received family support and community support as and when they needed. The parents poses positive attitude.

The child possess following problem behaviours- acts to young for his age, never argues, cannot finished anything, very little he enjoys, bowel movement is not allows controlled, unable to concentrate for long time, obsessions, hyperactive, too dependent upon others, attention seeking behaviours, cries a lot, showing destructive behaviours, accident prone, get tease a lot, aloofness, twitching, over eating, vomiting, aggressive,

temper-tantrum, compulsions, self injurious behaviour, sleeping problem, strange behaviour, teased others, bed wetting and whining.

The child's need support for behaviour modification but the parents are not aware about need of modification of problem behaviours. Parents provide physiotherapy and occupational therapy and take their child to different social programs and festivals. The school authority never guide the parents about the need of child's therapeutic intervention. The parents never get any training on parental involvement in the education and rehabilitation of their disable child, though the parents are truly interested to get such facilities. They do not know from where such facilities will be available.

Subject C is a 9 years old girl child studying in pre-primary standard. The child lives in urban habitat in a joint family. The parents educated up to class 10 standard. The child is the only baby of her parents in 2 years of age her onset of disability was identified. The child possess severe disability having intellectual disability cerebral policy and speech and language disability. The child received early intervention facilities. The parents received counselling facilities as well as family and community support but did not get any training on how to tackle the child in her day to day life. The special school authority did not informed the parents about the need of parental training and behaviour modification.

The child possess following problem behaviours like- acts to young for her age, fails to finished things she started, she enjoy very little, bowel movement, cannot play attention for long, complaints of loneliness, cruel to animals, attention seeking, disobedient at home and school, eating problem, breaks rules at home and school, nail biting constipation, too fearful, physically aggressive, picks nose and skin, prefers being with older and younger kids, refuses to talk, repetitive behaviour, inattentive, speech problem, echolalic, show strange behaviour, irritable sudden changes in mood, sucks a lot, teases a lot to others, temper-tantrums, thumb sucking, under active and lethargic, bed wetting and whining.

In spite of showing all the above mentioned problem behaviours the school authority never prescribed to the parents regarding needs of behaviour modification support for the child. The parents still did not know what is behavior modification, who are the behaviour therapist and where they can get needed support. School authority also never

care to train up the parents regarding how to nurture the child at home. The authority also did not guided about the need of taking the child in the different social programs and festivals. The school authority did not arrange for parental counselling though the parents are interested to get such facilities. They are not aware where rehabilitation counsellors are available. Therefore, though the parents are interested about the welfare of their child but they are helpless.

Subject D is a 18 years old girl child and studying in a special school in pre-vocational class. She came from a economically mediocre nuclear family from rural habitat. Her parents are educated up to class 10 standard and is the 1st child of her parents. Her disability was identified by doctor at 1.8 years age. The child is identified as a severe disabled having intellectual disability, autism and speech and language problems. Marital relationship of her parents are good and the parents avail no support from family and community members. After identification of disability parents did not received any kind of facilities nor any training regarding parental involvement in the rehabilitation of their disabled child. After the child admitted in special school, the school authority did not provide them any kind of training regarding nurturing the child or therapeutic intervention. In spite of her speech and language problem, autism and intellectual disability school authority did not provide her occupational therapy and speech language therapy.

Sometimes she shows the following problem behaviours like- acts to young for her age, frequently argues a lot, fails to finish to start, possess bowel movement outside the toilet, intensive, feels obsessions, depend upon others, cruel to animals, day dreaming, disobedient at home and school, always breaks rules and fears to dog, gets teased a lot, impulsive, nervous, nightmares, anxious, over eating, over tired without any good reason, headache, vomiting, stomachaches, aggressive to others, plays with own private organs in public, clumsy, timidity, speech problem, talks in sleep, withdrawal tendency.

The subject admitted in the special school in 8 years age but the school authority did not give her parents any information regarding their girl. The school possess in sufficient number of trained teachers and the teachers are not well paid. The school never arranged any meeting or workshop for the parents of their students. Most of the parents in the school have low income, therefore, they cannot arrange any therapist for their children. The school have no therapist.

Subject E is a 18 years old boy from rural habitat. He studied in primary standard. He came from nuclear families and family income is not good. Parents educated up to 10 standard and he is the 2nd baby of his parents. He is disability was identified by a doctor as moderate range of disability. He possess intellectual disability as well as multisensory impairment (Visual Impairment and speech and hearing impairment). Marital relationship of the parents are good and parents received support from their family members. Parents did not received any counselling facilities or community support. The child did not get early intervention facilities. The special school authority did not provide any training to the parents regarding child rearing practices. In spite of his multisensory disability and intellectual disability the school authority did not arranged any kind of therapeutic intervention for the child. Though, parents possess a positive attitude towards their disabled child. But due to their ignorance they cannot support their baby.

The child possess following problem behaviours: inattentive, dependent upon others, cries a lot, attention seeking, destructive, disobedient, eating problem, break rules everywhere, fears going to school, accident prone, teased others, nail biting, anxious, physical problems like- headache, eye problem, skin problem, stomachaches, vomiting, openly plays with private parts, aggressive, temper-tantrums, thumb sucking, clumsiness, bed wetting, withdrawal tendency.

The special school authority did not arrange any therapeutic services for the child, though he needs sensory training, occupational therapy and speech language therapy. The parents are also not aware about need of therapeutic interventions for their child. They first heard it from the present researcher. The school have insufficient teaching learning materials and they did not bother to trained up their children on activities of daily living.

Subject F is 18 years old boy from nuclear families in an urban habitat. He studied in pre-vocational class. He is the second baby of his parents. Both the parents are graduate and belong in a high income group. His disability was fast identify in his age 6 as mild intellectual disability. From the very beginning his development is mildly affected. The parents walk from the chamber of doctor to doctor just to make it sure about the problem of their child. Marital relationship of his parents are good. They received parental counselling regarding their child and they also provide required early

intervention facilities to their child. Parents did not get family support and community support regarding nurturing their child.

Child possess following problem behaviours- sometimes the subject acts too young for his age, he is dependent upon others and possess attention seeking behaviours from others, impulsive, affected from constipation, anxious, show over eating behaviour, feel tiredness, shyness, sudden change of mood, talkative etc.

From the very beginning the parents arrange early intervention facilities for their child knowing from doctors and rehabilitation counselor. The school authority is positive about the subject. The school authority appointed separate psychologist for the subject. In spite of his intellectual disability he showed a remarkable intellectual and academic development after getting regular intervention from the psychologist. Now the subject is able to adjust with the changing situations as well as can meet social programs in school and family. He regularly take part in the different religious rituals.

4.6. SUMMARY OF CASE HISTORIES:

From the detailed case histories of 6 subjects it was noted that though the parents possess a positive attitude towards their disabled child yet the development of their children is not satisfactory at all. Most interesting features is that in spite of giving birth of disable child there is no case of parental separation or bad relationship between the parents. Special school authorities did not care to arrange any early intervention training, sensory training, therapeutic interventions as well as parental training for parental involvement in the education and rehabilitation of their disable child. Special school lack sufficiently trained special educators. In most special schools regular or part time basis therapists are not available. Most of the parents of the disable child remain in low income group therefore, unable to bear extra fees of therapist for their child. Schools did not care for any kind of conference, symposium, workshop or awareness meeting for the parents of their disabled learners. Most schools lack sufficient age appropriate and disability oriented teaching learning materials. Most of the special educators neither highly educated nor they possess regular in-service training programs. Library facilities in the special schools are either absents or are very poor. The facilities are not available neither to the special educators, nor to the parents. Arrangement of mass awareness programs are not under consideration of the special school authorities.

CHAPTER V

THE FINDINGS AND DISCUSSION

CHAPTER-V

THE FINDINGS AND DISCUSSION

5.1. CHAPTER OVERVIEW:

In this chapter the researcher provided an overall view of the empirical findings of all the hypotheses of the study. Depending upon the nature of the findings. The investigator also presented a brief discussion from the basis of previous established research. In this chapter researchers also included the limitations and suggestions for further research in the study area. Finally the researcher gave a conclusion and her own recommendation as a sincere researcher.

5.2. THE FINDINGS:

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.

5.3. 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 & 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 (Crinic, 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 where 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 where 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 then the visually impaired boys. Holden and Gitlesen (2005) on the other hand, did not found 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 disable boys possess more antisocial behaviours then 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, scramming, 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 Gitleson (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, scramming, 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)

5.4. LIMITATIONS OF THE STUDY:

The present research has some limitations, which are as follows-

1. The investigator done a survey research, though in this field quasi experimental research having single case research design or multi-rehearsal case design method also can be adopted.
2. The investigator used only one Behaviour Assessment Scale, though other standardised scales were there.
3. The investigator did not collect data neither from the parents, nor from the special educators, she collected data directly from the sample child by using Child Behaviour Checklist.

5.5. 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.

5.6. RECOMMENDATIONS:

According to National Education Policy (2020) all types of disabled children are permitted to take education in mainstream 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 children will come, the school authority could not be able to deny 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 disability 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 on 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 support the non-disabled learners also. Behaviour therapy will support a student to achieve his or her academic excellence.

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SUMMARY

SUMMARY

CHAPTER: I - INTRODUCTION

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's model stated that, "formation of conditional reflexes is affected by the structural features of the organism as well as the environmental conditions. Cortical excitation, inhibition, and other changes in brain processes were seen as the central events underline the observed behavioural disturbances under some conditions" (Kanfer, 1972, p.5). Normal or abnormal all the human behaviours are learnt and, therefore, subject to modification. So it is assumed that the abnormal behaviours can be altered by applications of learning principles and there by socially approved behaviours can be established among the individuals. So nature of the problem is not the obstacle for problem behaviour. Rather it is the quality of behaviour which we have to modify. To select a particular stimulus, so that expected responses can be elicited from the client, the behaviour modifier must be sufficiently careful. Behaviour modification is an educational process.

Behaviour problems in children can be classified into two major domains of dysfunctions, mainly externalizing or under controlled behaviours and internalizing or over controlled behaviours. A good number of research were held by different psychologists to study the prevalence of behaviour problems among developmentally disabled children in the different countries by using different types of standardize scales.

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. 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. The

causative factor for achieving problem behaviours by developmentally disabled children in their early ages are parental stress, lack of supportive and enriching experiences in the home, and lack of early intervention training. Particularly in the rural area as well as among the poor families parents neither aware about causative factors of disability, they have no training about nurturing disabled child as well as how they can involve with their disabled child. In most cases their parenting style is also not adequate. Less favourable family climates of disabled and non-disabled children also are the causative factors of problem behaviours among children.

EMERGENCE OF THE RESEARCH PROBLEM:

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). In a good volume of research, since 1962 or even earlier, it was established that problem behaviours appears to be universal among developmentally disabled infants (Baumeister & Forehand, 1973; Berkson, 1967; Mitchell & Etches, 1977; Berkson & Davenport, 1962; Lovaas et. al., 1965; Kravitz & Boehm, 1971) but it maintains and elaborates among the children with intellectually impaired and children with autistic like features (Nanda, 1998). The problem behaviours have been found to be associated with low intelligence (Berkson & Davenport, 1962; Guess, 1966), younger chronological ages (Kravitz & Boehm, 1971; Mitchell & Etches, 1977; Thelen, 1979), institutionalization (Dennis & Najarian, 1957; Kaufman, 1967) etc. 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 (Lovaas, 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). The cause of aggression may be to seek attention of others according to Eichel (1978) or deficits in social skills as established by Goldstein (1988) and Kauffman (1992). Developmentally disabled children who have severe or profound disability, they show hyperactive behaviours (Nanda & Mitra, 2006). Barkson and Davenport (1962) noted that

hyperactive behaviours are self-stimulatory in character. Body-rocking is the most common type of self-stimulatory stereotyped behaviour (Schwartz, Gallagher & Berkson, 1986). In the study of Lovaas, Newsom and Hickman (1987), Koegel and Covert (1972) it was reported that self-stimulatory stereotyped behaviour interfere with the previously learned behaviours as well as it also has a blocking effect on the acquisition of new behaviours.

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:

The objectives of the study are as follows:

1. To study the types of problem behaviours present among developmentally disabled children on the basis of- Gender, Age, Educational standard, Habitat, Family Structure, Family Income of the Parents, Parental Education, Birth order of the child, Age of onset of disability, Availability of Early Intervention Facilities, Availability of Parental Counselling, Availability of Parental Training on Parental Involvement, Availability of Parental Support, Availability of Community Support, Types of Disability, Range of Disability, and Marital relationship after the birth of disabled child.

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:

$H_0$1. There is no significant median difference between developmentally disabled boys and girls on the basis of their problem behaviours.

$H_0$2. There is no significant median difference between developmentally disabled different age groups children on the basis of their problem behaviours.

$H_0$3. There is no significant relationship between problem behaviours of developmentally disabled children and their educational standard.

$H_0$4. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their habitat.

$H_0$5. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their family structure.

$H_0$6. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their family incomes.

$H_0$7. There is no significant relationship between problem behaviours of developmentally disabled children and their parental education.

$H_0$8. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their birth order.

$H_0$9. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their age of onset of disability.

$H_0$10. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of early intervention facilities.

$H_0$11. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of parental counselling.

$H_0$12. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of training on parental involvement.

$H_0$13. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of parental support.

$H_0$14. There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of community support.

$H_0$15. There is no significant relationship between problem behaviours of developmentally disabled children and their range of disability.

$H_0$16. There is no significant relationship between problem behaviours of developmentally disabled children and 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". Thesummery of review related literature is given below in table:

Area	Total literature reviewed	Duration	Common independent variables found	Research design
Out of India	**40**	**1984-2023**	Age, Gender, Educational Qualification, Habitat, Family Structure, Family Income of the Parents, Parental Education, Range of Disability, Types of Disability.	Case Study, Survey Method.
Within India	**19**	**1993-2020**		

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 SocialSciences (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 presentchapter into two parts. The first part presents descriptive statistical analysis withinterpretation and represented mean, standard deviation, graphical representation. Second partserves inferential analysis of data with the independent samples. At the endof the statistical analysis, the researcher alsoincludes some case study report of developmentally disabled children.

Summary of the hypotheses tested at a glance:

No. of the Hypotheses	Hypotheses	Remarks
$H_0$1.	There is no significant median difference between developmentally disabled boys and girls on the basis of their problem behaviours.	**Accepted**
$H_0$2.	There is no significant median difference between developmentally disabled different age groups children on the basis of their problem behaviours.	**Rejected**
$H_0$3.	There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their educational standard.	**Rejected**
$H_0$4.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their habitat.	**Accepted**

$H_0$5.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their family structure.	**Accepted**
$H_0$6.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their family incomes.	**Rejected**
$H_0$7.	There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their parental education.	**Rejected**
$H_0$8.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their birth order.	**Rejected**
$H_0$9.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their age of onset of disability.	**Rejected**
$H_0$10.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of early intervention facilities.	**Accepted**
$H_0$11.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of parental counselling.	**Accepted**
$H_0$12.	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**
$H_0$13.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of parental support.	**Accepted**
$H_0$14.	There is no significant median difference between problem behaviours of developmentally disabled children on the basis of their availability of community support.	**Rejected**
$H_0$15.	There is no significant mean difference among problem behaviours of developmentally disabled children on the basis of their range of disability.	**Rejected**
$H_0$16.	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 (Crinic, 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 Rescoral (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 where 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 where 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 then the visually impaired boys. Holden and Gitlesen (2005) on the other hand, did not found 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 disable boys possess more antisocial behaviours then 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, scramming, 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 Gitleson (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, scramming, 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, perticulerly 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 socity 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 endevour. Further in-depth research is recommended.

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APPENDICES

Appendix I

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

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Appendix II

যাদবপুর বিশ্ববিদ্যালয়
কলকাতা - ৭০০ ০৩২, ভারত

JADAVPUR UNIVERSITY
KOLKATA-700 032, INDIA

DEPARTMENT OF EDUCATION

Date: November 8, 2019

To Whom It May Concern

This is to certify that **PINKI MONDAL** is a bonafide Ph.D. research scholar of the Department of Education, under Faculty Council of Arts, Jadavpur University, bearing Registration No.: A00ED1200617. She is pursuing her Ph.D. research on the area of ***Range and Types of Problem Behaviours of School Enrolled Developmentally Disabled Children: A Study***, under the supervision of the undersigned.

To successfully complete her Ph.D. dissertation, Pinki Mondal needs to conduct research survey and collect data from different schools, including special schools, across West Bengal.

The undersigned hereby requests the concerned to kindly grant Pinki Mondal for permission to conduct her survey in his/her esteemed institution. Kind cooperation in this regard is solicited and will be greatly appreciated.

8/11/19

[Prof. (Dr.) Bishnupada Nanda]
Head
Department of Education
Jadavpur University

Prof. Bishnupada Nanda
HEAD
Department of Education
Jadavpur University

* Established on and from 24th December, 1955 vide Notification No. 10986/IU-42/55 dated 6th December, 1955 under Jadavpur University Act, 1955 (West Bengal Act XXXIII of 1955) followed by Jadavpur University Act, 1981 (West Bengal Act XXIV of 1981)

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দূরবার্তা : (৯১) ০৩৩ ২৪১৪-৬০০৮

Website : www.jadavpur.edu
E-mail : education.ju@gmail.com

Phone : (91) 033 2457-2882
Fax : (91) 033 2414-6008

Appendix III

QUESTIONNAIRE FOR DATA COLLECTION

PARTICIPANT INFORMATION SHEET

Respected Sir/Madam,

I, **PINKI MONDAL** am doing Ph.D. from *Department of Education, Jadavpur University* under the guidance of **Prof. Bishnupada Nanda,** *HOD, Department of Education, Jadavpur University*. The topic of my research work is "**RANGE AND TYPES OF PROBLEM BEHAVIOURS OF SCHOOL ENROLLED DEVELOPMENTALLY DISABLED CHILDREN: A STUDY."**The present study is being conducted by researcher to examine the problem behaviours of school enrolled developmentally disabled children.

You are being invited to take part in this research study. Participation is voluntary. Participation involves filling up one questionnaire where in you have to give some details about yourself and answer some questions best on you belief and knowledge. I assure you, all the information furnished in this Questionnaire will be kept confidential and it will be used only for research and academic purpose. Please be aware that this study may not directly benefit you personally, but it is being undertaken with a view point to benefit the society at large. The personal details given by you will not be disclosed to anyone under any circumstance. If you have any query, please feel free to ask me (Mobile No. 9874128303).

Thanking You,

Yours Sincerely

PinkiMondal

Research Scholar, Dept. of Education, Jadavpur University

If you are interested to take part in the study, you are requested to sign the consent form provided below.I confirm that I have read and understood the information about the research study as provided in the Participant Information Sheet and have had the chance to ask questions about this study. I understand that my participation is voluntary and I am free to withdraw from the study at any time, without having to give a reason and without any consequences. I understand that any information recorded in the investigation will remain confidential. I consent to use of the data in research, publications, sharing and archiving as explained in the Participant Information Sheet. I consent to being audio/ video/ interviews being recorded as part of the project. I hereby willingly agree to take part in the above study.

Signature of the Participant with date

DEMOGRAPHIC DATA SHEET

1. **Gender:** Male / Female
2. **Age:**
3. **Educational standard:** Pre-primary / Primary / Secondary / Pre-vocational
4. **Habitat:** Rural / Urban / Semi-urban
5. **Family Structure:** Joint / Nuclear / Broken
6. **Family Income of the Parents:** Less than 5,000 / 5001-10,000 / 10,001- above
7. **Parental Education:** Illiterate / Upto 10th standard / H.S. / Graduate / Post-graduate.
8. **Birth order of the child:** 1st / 2nd / 3rd / 4th
9. **Age of onset of disability:**
10. **Availability of Early Intervention Facilities:** Yes / No
11. **Availability of Parental Counselling:** Yes / No
12. **Availability of Parental Training on Parental Involvement:** Yes / No
13. **Availability of Parental Support:** Yes / No
14. **Availability of Community Support:** Yes / No
15. **Types of Disability:**
16. **Range of Disability:**
17. **Marital relationship after the birth of disabled child:** Very good / Good / Bad

CHILD BEHAVIOUR CHECKLIST FOR AGES 6-18

Below is a list of items that describe children and youths. For each item that describes your child now or within the past 6 months, please circle the 2 if the item is very true or often true of your child. Circle the 1 if the item is somewhat or sometimes true of your child. If the item is not true of your child, circle the 0. Please answer all items as well as you can, even if some do not seem to apply to your child.

0 = Not True (as far as you know), 1 = Somewhat or Sometimes True, 2 = Very True or Often True.

SL. NO.	QUESTIONS	ANSWER		
		0	**1**	**2**
1.	Acts too young for his/her age	0	1	2
2.	Drinks alcohol without parents' approval (describe):	0	1	2
3.	Argues a lot	0	1	2
4.	Fails to finish things he/she starts	0	1	2
5.	There is very little he/she enjoys	0	1	2
6.	Bowel movements outside toilet	0	1	2
7.	Bragging, boasting	0	1	2
8.	Can't concentrate, can't pay attention for long	0	1	2
9.	Can't get his/her mind off certain thoughts; obsessions (describe):	0	1	2
10.	Can't sit still, restless, or hyperactive	0	1	2
11.	Clings to adults or too dependent	0	1	2
12.	Complains of loneliness	0	1	2
13.	Confused or seems to be in a fog	0	1	2
14.	Cries a lot	0	1	2
15.	Cruel to animals	0	1	2
16.	Cruelty, bullying, or meanness to others	0	1	2
17.	Daydreams or gets lost in his/her thoughts	0	1	2
18.	Deliberately harms self or attempts suicide	0	1	2
19.	Demands a lot of attention	0	1	2
20.	Destroys his/her own things	0	1	2
21.	Destroys things belonging to his/her family or others	0	1	2
22.	Disobedient at home	0	1	2
23.	Disobedient at school	0	1	2
24.	Doesn't eat well	0	1	2
25.	Doesn't get along with other kids	0	1	2
26.	Doesn't seem to feel guilty after misbehaving	0	1	2

27.	Easily jealous	0	1	2
28.	Breaks rules at home, school, or elsewhere	0	1	2
29.	Fears certain animals, situations, or places, other than school (describe):	0	1	2
30.	Fears going to school	0	1	2
31.	Fears he/she might think or do something bad	0	1	2
32.	Feels he/she has to be perfect	0	1	2
33.	Feels or complains that no one loves him/ her	0	1	2
34.	Feels others are out to get him/her	0	1	2
35.	Feels worthless or inferior	0	1	2
36.	Gets hurt a lot, accident-prone	0	1	2
37.	Gets in many fights	0	1	2
38.	Gets teased a lot	0	1	2
39.	Hangs around with others who get in trouble	0	1	2
40.	Hears sound or voices that aren't there (describe):	0	1	2
41.	Impulsive or acts without thinking	0	1	2
42.	Would rather be alone than with others	0	1	2
43.	Lying or cheating	0	1	2
44.	Bites fingernails	0	1	2
45.	Nervous, highstrung, or tense	0	1	2
46.	Nervous movements or twitching (describe):	0	1	2
47.	Nightmares	0	1	2
48.	Not liked by other kids	0	1	2
49.	Constipated, doesn't move bowels	0	1	2
50.	Too fearful or anxious	0	1	2
51.	Feels dizzy or lightheaded	0	1	2
52.	Feels too guilty	0	1	2
53.	Overeating	0	1	2
54.	Overtired without good reason	0	1	2
55.	Overweight	0	1	2
56.	Physical problems without known medical cause:			
56.A.	Aches or pains (not stomach or headaches)	0	1	2
56.B.	Headaches	0	1	2
56.C.	Nausea, feels sick	0	1	2
56.D.	Problems with eyes (not if corrected by glasses) (describe):	0	1	2
56.E.	Rashes or other skin problems	0	1	2
56.F.	Stomachaches	0	1	2
56.G.	Vomiting, throwing up	0	1	2

56.H.	Other (describe):	0	1	2
57.	Physically attacks people	0	1	2
58.	Picks nose, skin, or other parts of body (describe):	0	1	2
59.	Plays with own sex parts in public	0	1	2
60.	Plays with own sex parts too much	0	1	2
61.	Poor school work	0	1	2
62.	Poorly coordinated or clumsy	0	1	2
63.	Prefers being with older kids	0	1	2
64.	Prefers being with younger kids	0	1	2
65.	Refuses to talk	0	1	2
66.	Repeats certain acts over and over; compulsions (describe):	0	1	2
67.	Runs away from home	0	1	2
68.	Screams a lot	0	1	2
69.	Secretive, keeps things to self	0	1	2
70.	Sees things that aren't there (describe):	0	1	2
71.	Self-conscious or easily embarrassed	0	1	2
72.	Sets fires	0	1	2
73.	Sexual problems (describe):	0	1	2
74.	Showing off or clowning	0	1	2
75.	Too shy or timid	0	1	2
76.	Sleeps less than most kids	0	1	2
77.	Sleeps more than most kids during day and/or night (describe):	0	1	2
78.	Inattentive or easily distracted	0	1	2
79.	Speech problem (describe):	0	1	2
80.	Stares blankly	0	1	2
81.	Steals at home	0	1	2
82.	Steals outside the home	0	1	2
83.	Stores up too many things he/she doesn't need (describe):	0	1	2
84.	Strange behavior (describe):	0	1	2
85.	Strange ideas (describe):	0	1	2
86.	Stubborn, sullen, or irritable	0	1	2
87.	Sudden changes in mood or feelings	0	1	2
88.	Sulks a lot	0	1	2
89.	Suspicious	0	1	2
90.	Swearing or obscene language	0	1	2
91.	Talks about killing self	0	1	2
92.	Talks or walks in sleep (describe):	0	1	2
93.	Talks too much	0	1	2

94.	Teases a lot	0	1	2
95.	Temper tantrums or hot temper	0	1	2
96.	Thinks about sex too much	0	1	2
97.	Threatens people	0	1	2
98.	Thumb-sucking	0	1	2
99.	Smokes, chews, or sniffs tobacco	0	1	2
100.	Trouble sleeping (describe):	0	1	2
101.	Truancy, skips school	0	1	2
102.	Underactive, slow moving, or lacks energy	0	1	2
103.	Unhappy, sad, or depressed	0	1	2
104.	Unusually loud	0	1	2
105.	Uses drugs for nonmedical purposes (don't include alcohol or tobacco) (describe)	0	1	2
106.	Vandalism	0	1	2
107.	Wets self during the day	0	1	2
108.	Wets the bed	0	1	2
109.	Whining	0	1	2
110.	Wishes to be of opposite sex	0	1	2
111.	Withdrawn, doesn't get involved with others	0	1	2
112.	Worries	0	1	2
113.	Please write in any problems your child has that were not listed above:			
		0	1	2
		0	1	2
		0	1	2

Thanks for your cooperation.

জনতাত্ত্বিক তথ্য

১. লিঙ্গ: পুরুষ / মহিলা

২. বয়স:

৩. শিক্ষাগত মান:

৪. বাসস্থান:

৫. পারিবারিক কাঠামো:

৬. পিতামাতার পারিবারিক আয়:

৭. পিতামাতার শিক্ষাগত যোগ্যতা:

৮. সন্তানের জন্মক্রম:

৯. আক্ষমতা শুরুর বয়স:

১০. প্রারম্ভিক প্রতিকার মূলক ব্যবস্থার প্রাপ্তির সুযোগ: হ্যাঁ / না

১১. পিতামাতার পক্ষে পরামর্শ লাভের সুযোগ প্রাপ্তি: হ্যাঁ / না

১২. পিতামাতার অংশিদারিক্ত বিষয়ে পিতামাতার প্রশিক্ষনের সুযোগ লাভ: হ্যাঁ / না

১৩. পিতামাতার নিকট থেকে সহায়তা লাভের সম্ভাব্যতা: হ্যাঁ/ না

১৪. জন গোষঠির সহায়তালাভের সম্ভাব্যতা: হ্যাঁ/ না।

১৫. অক্ষমতার ধরন:

১৬. অক্ষমতার বিস্তৃতি:

১৭. অক্ষম শিশুর জন্মগ্রহন এর পর স্বামী স্ত্রী-র মধ্যেকার সম্পর্ক ভালো / খারাপ।

তথ্য সংগ্রহের জন্য তথ্যাবলী
অংশগ্রহণকারি তথ্য পত্রিকা

শ্রদ্ধেয় স্যার/ম্যাডাম,

আমি, পিংকি মন্ডল পিএইচ.ডি. করছি, শিক্ষা বিভাগ, যাদবপুর বিশ্ববিদ্যালয়ের অধ্যাপক বিষ্ণুপদ নন্দ, এইচওডি, শিক্ষা বিভাগ, যাদবপুর বিশ্ববিদ্যালয়ের নির্দেশনায়। আমার গবেষণা কাজের বিষয় হল **"স্কুলের তালিকাভুক্ত উন্নয়নমূলকভাবে প্রতিবন্ধী শিশুদের সমস্যাগত আচরণের পরিসর এবং ধরন: একটি অধ্যয়ন।"** বর্তমান গবেষণাটি স্কুলে তালিকাভুক্ত বিকাশগতভাবে প্রতিবন্ধী শিশুদের সমস্যা আচরণ পরীক্ষা করার জন্য গবেষক দ্বারা পরিচালিত হচ্ছে।

আপনাকে এই গবেষণায় অংশ নিতে সাদর আমন্ত্রণ জানাই। আপনাকে প্রশ্নাবলিটি দুটি অংশে পুরন করতে হবে। যার একটিতে নিজের সম্পর্কে এবং অন্যটিতে আপনার বিশ্বাস এবং জ্ঞানের উপর নিভর করে কিছু প্রশ্নের উত্তর দিতে হবে। আমি আপনাকে আশ্বাস দিচ্ছি, এই প্রশ্নাবলীতে দেওয়া সমস্ত তথ্য গোপন রাখা হবে এবং এটি শুধুমাত্র গবেষণা এবং একাডেমিক উদ্দেশ্যে ব্যবহার করা হবে। অনুগ্রহ করে সচেতন থাকুন যে এই অধ্যয়নটি আপনার ব্যক্তিগতভাবে সরাসরি উপকৃত নাও হতে পারে, তবে এটি ব্যাপকভাবে সমাজের উপকার করার জন্য একটি দৃষ্টিকোণ নিয়ে করা হচ্ছে। আপনার দেওয়া ব্যক্তিগত বিবরণ কোনো অবস্থাতেই কারো কাছে প্রকাশ করা হবে না। যদি আপনার কোন প্রশ্ন থাকে, অনুগ্রহ করে আমাকে নির্দ্বিধায় জিজ্ঞাসা করুন (মোবাইল নং ৯৮৭৪১২৮৩০৩)।

ধন্যবাদান্তে,

আপনার বিশ্বস্ত

পিংকি মন্ডল

রিসার্চ স্কলার, শিক্ষা বিভাগ, যাদবপুর বিশ্ববিদ্যালয়

আপনি যদি অধ্যয়নে অংশ নিতে আগ্রহী হন, তাহলে আপনাকে নীচে প্রদত্ত সম্মতি ফর্মে স্বাক্ষর করার জন্য অনুরোধ করা হচ্ছে। আমি নিশ্চিত করছি যে আমি স্বেচ্ছায় এই সমিক্ষায় অংশগ্রহণ করছি এবং আমি কোনো কারণ ছাড়াই এবং কোনো পরিণতি ছাড়াই যেকোনো সময় অধ্যয়ন থেকে প্রত্যাহার করতে পারি। আমি অংশগ্রহণকারী তথ্য পত্রিকায় দেওয়া সমস্থ তথ্যগুলিকে গবেষণার উদ্দেশ্যে প্রকাশনার স্বার্থে ব্যাবহার করার জন্য সম্মতি জানাচ্ছি।

আমি এতদ্বারা স্বেচ্ছায় উপরোক্ত গবেষণায় অংশ নিতে সম্মতি দিচ্ছি।

তারিখ: **অংশগ্রহণকারীর স্বাক্ষর**

0-সত্যনয়, 1-কিছুটা বা কখনও কখনও সত্য, 2-খুবসত্য বা প্রায়ই সত্য

ক্রমিক নং.	প্রশ্ন	উত্তর		
1.	বয়সের তুলনায় কম বয়সীদের মত ব্যবহার করে।	0	1	2
2.	বাবা মায়ের সাম্মতি ছারাই মদ খেয়ে নেয়। (বর্ণনা):	0	1	2
3.	ভীষন ভাবে সব ব্যাপারেই যুক্তি দেয় বা ঝগড়া করে।	0	1	2
4.	কোন কাজ শুরু করে শেষ করতে পারেনা।	0	1	2
5.	খুব কম ক্ষেত্রেই সে আনন্দ পায়।	0	1	2
6.	টয়লেটের বাইরে তারা মলমূএ ত্যাগ করে।	0	1	2
7.	নিজের বড়াই করে বা প্রশংসা করে।	0	1	2
8.	কোন বিষয়ে দীর্ঘ সময় মনোযোগ দিতে পারে না বা মনোযোগ ধরে রাখতে পারে না।	0	1	2
9.	কোন কোন চিন্তনের ক্ষেত্রে সে মন দিতে পারে না। (বর্ণনা):	0	1	2
10.	কোন জায়গায় স্থির হয়ে বসতে পারে না , সবসময় অস্থির এবং অতি সক্রিয়।	0	1	2
11.	খুব বয়স্কদের মত ব্যবহার করে অথবা অন্যের উপর বেশী নির্ভর করে।	0	1	2
12.	সর্বদা একাকিত্বে ভোগে।	0	1	2
13.	মনে হয় সব সময় যেন একটা ধোয়াশার মধ্যে রয়েছে।	0	1	2
14.	প্রচন্ড চিৎকার করে।	0	1	2
15.	পশুদের প্রতি অত্যন্ত নিষ্ঠুর।	0	1	2
16.	অন্যের প্রতি নিষ্ঠুরতা বা ঘ্যানঘ্যান বা সংকীর্ন মনোভাব সম্পন্য।	0	1	2
17.	দিনের বেলার স্বপ্নে বিভোর থাকে।	0	1	2
18.	বেপরোয়া ভাবে নিজের বা অন্যের ক্ষতি করে বা আত্মহত্যার চেষ্টা করে।	0	1	2
19.	খুব বেশী অন্যের মনোযোগ চায়।	0	1	2
20.	নিজের জিনিসপএ নষ্ট করে।	0	1	2
21.	পরিবারের অথবা অন্যের জিনিসপএ নষ্ট করে।	0	1	2
22.	পরিবারিক বিধিনিষেধকে অমান্য করে।	0	1	2
23.	বিদ্যালয়ের বিধিনিষেধকে অমান্য করে।	0	1	2
24.	ভাল করে খেতে পারেনা।	0	1	2
25.	অন্যান্য বাচ্চাদের সাথে একত্রে থাকতে পারেনা।	0	1	2
26.	খারাপ আচরণের পরে নিজে যে দোষী তা অনুভব করেনা।	0	1	2

27.	সহজেই ঈর্ষান্বিত হয় বা হিংসা করে।	0	1	2
28.	পরিবার, বিদ্যালয় অথবা অন্য যেকোন ক্ষেত্রেই আইন কানুন ভাঙতে থাকে।	0	1	2
29.	কোন কোন পশু, বিষেশ অবস্থা অথবা স্থান কে ভয় পায় (বিদ্যালয় ছাড়া)। (বর্ণনা):	0	1	2
30.	বিদ্যালয়ে যেতে ভয় পায়।	0	1	2
31.	সে খারাপ কিছু করে ফেলবে অথবা কিছু ভাববে বলে ভয় পায়।	0	1	2
32.	সে অনুভব করে যে সে সঠিক ভাবে চলবে।	0	1	2
33.	অনুভব করে অথবা প্রায় নালিশ করে যে কেউ তাকে ভালবাসেনা।	0	1	2
34.	অন্যরা তাকে সরিয়ে দিতে চায় বলে সে অনুভব করে।	0	1	2
35.	নিজেকে খুব নিম্নমানের বা কোন কাজের নয় বলে ভাবে।	0	1	2
36.	অল্পতেই আহত হয়, দুর্ঘটনার প্রবণতা রয়েছে।	0	1	2
37.	বিভিন্ন রকমের যুদ্ধে জড়িয়ে পড়ে।	0	1	2
38.	প্রায়শই অন্যকে বিরক্ত করে।	0	1	2
39.	যারা বিপদে পড়েছে তাদেরকে অন্যদের সাথে ঘিরে ধরে।	0	1	2
40.	এমন শব্দ বা কণ্ঠস্বর শোনে যা সেখানে অনুপস্থিত। (বর্ণনা):	0	1	2
41.	আবেগ প্রণোদিত হয়ে বা চিন্তা ছাড়া কাজ করে।	0	1	2
42.	অন্যদের সাথে থাকার চেয়ে একাএকা থাকে।	0	1	2
43.	মিথ্যা কথা বলে বা প্রতারনা করে।	0	1	2
44.	দাঁত দিয়ে নখ কাটে।	0	1	2
45.	একটুতেই ঘাবরিয়ে যায় অথবা মানসিক চাপের মধ্যে থাকে।	0	1	2
46.	একটুতেই ঘাবরিয়ে গিয়ে ইতস্তত চলাফেরা করতে থাকে অথবা পাক খেতে থাকে।(বর্ণনা):	0	1	2
47.	দুঃস্বপ্ন দেখে।	0	1	2
48.	অন্যান্য বাচ্চারা তাকে অপছন্দ করে।	0	1	2
49.	পায়খানা শক্ত হয়ে যায়।	0	1	2
50.	ভীষন ভীতু অথবা উদ্বেগে ভোগে।	0	1	2
51.	মাথা ঘোরে মনে করে বা চিন্তাশুন্য মনে হয়।	0	1	2
52.	নিজেকে অত্যন্ত দোষী বলে অনুভব করে।	0	1	2
53.	অতিরিক্ত খেয়ে ফেলে।	0	1	2
54.	কোন সঠিক কারণ ছাড়াই অধিক ক্লান্তিতে ভোগে।	0	1	2

55.	শরীরের ওজন অতিরিক্ত।	0	1	2
56.	চিকিৎসা সম্পর্কিত কারন ছাড়াই শরীরিক সমস্যায় ভোগে।			
a.	যন্ত্রনা (পেট বা মাথা ব্যাথা নয়)।	0	1	2
b.	মাথা ব্যাথা।	0	1	2
c.	বমিবমিভাব , অসুস্থবোধ করা।	0	1	2
d.	চোখের সমস্যা (চশমা দ্বারা যদি ঠিক না হয়)। (বর্ণনা):	0	1	2
e.	লাললাল ফুসকুড়ি বা অন্যান্য চামড়ার সমস্যা।	0	1	2
f.	পেটে ব্যথা।	0	1	2
g.	বমি করা।	0	1	2
h.	অন্যান্য।(বর্ণনা):	0	1	2
57.	শরীরিকভাবে অন্যকে আক্রমন করে।	0	1	2
58.	নাক, চামড়া, বা শরীরের অন্যান্য অংশ খোঁটায়। (বর্ণনা):	0	1	2
59.	অন্যের সামনে নিজের যৌন অঙ্গ নিয়ে খেলা করে।	0	1	2
60.	নিজের যৌন অঙ্গ নিয়ে অতিরিক্ত খেলা করে।	0	1	2
61.	বিদ্যালয়ের কাজকর্ম অত্যন্ত নিম্নমানের।	0	1	2
62.	কোন বিষয়ে সুস্ঠভাবে সমন্বয় করতে পারে না।	0	1	2
63.	বড়বাচ্চাদের সঙ্গে থাকতে পছন্দ করে।	0	1	2
64.	ছোটবাচ্চাদের সঙ্গে থাকতে পছন্দ করে।	0	1	2
65.	কথা বলতে চায়না বা অস্বীকার করে।	0	1	2
66.	একই কাজ বারবার করে যায়। (বর্ণনা):	0	1	2
67.	বাড়ি থেকে দৌড়ে বেরিয়ে যায়।	0	1	2
68.	খামচে দেয়।	0	1	2
69.	সবকিছু নিজের কাছে রেখে দেয় বা গোপন করে।	0	1	2
70.	যে জিনিস সেখানেনেই , সেখানে সেই জিনিস দেখে। (বর্ণনা):	0	1	2
71.	যথেষ্ট আত্মসচেতন বা সহজেই বিব্রত।	0	1	2
72.	আগুন ধরায়।	0	1	2
73.	যৌন সমস্যা রয়েছে।(বর্ণনা):	0	1	2
74.	সবকিছু প্রবনতা রয়েছে।	0	1	2

75.	অত্যন্ত লাজুক বা ভিরু প্রকৃতির।	0	1	2
76.	অধিকাংশ বাচ্চাদের তুলনায় কম ঘুমায়।	0	1	2
77.	দিনেবারাতে অধিকাংশ বাচ্চাদের তুলনায় বেশী ঘুমায়। (বর্ণনা):	0	1	2
78.	অমনোযোগী বা সহজেই মনযোগ হারায়।	0	1	2
79.	কথার সমস্যা রয়েছে। (বর্ণনা):	0	1	2
80.	এমনভাবে থাকে যেন মনে হয় তার ভিতরের সব হারিয়ে গেছে।	0	1	2
81.	বাড়িতে চুরি করে।	0	1	2
82.	বাড়ির বাইরে ও চুরি করে।	0	1	2
83.	তার প্রয়োজন নেই এমন অনেক জীনিসকে সঞ্চয় করে। (বর্ণনা):	0	1	2
84.	অদ্ভুত আচরণ করে। (বর্ণনা):	0	1	2
85.	অদ্ভুতভাবনার কথা বলে। (বর্ণনা):	0	1	2
86.	অত্যন্ত খিটখিটে মেজাজের।	0	1	2
87.	হঠাৎ হঠাৎ অনুভূতি বা মেজাজের পরিবর্তন।	0	1	2
88.	অনেক গুমর।	0	1	2
89.	সন্দেহ বাতিক।	0	1	2
90.	অত্যন্ত নোংরা কথা বলে।	0	1	2
91.	নিজেকে শেষ করে ফেলার কথা বলে।	0	1	2
92.	ঘুমের মধ্যেও কথা বলে বা হেঁটে বেড়ায়। (বর্ণনা):	0	1	2
93.	খুব বেশী কথা বলে।	0	1	2
94.	অন্যকে খুব বিরক্ত করে।	0	1	2
95.	অত্যন্ত জেদি বা হঠাৎ রেগে যায়।	0	1	2
96.	নিজের যৌনতা নিয়ে খুব বেশী ভাবে।	0	1	2
97.	মানুষকে ভয় দেখায়।	0	1	2
98.	বুড়ো আঙুল চোষে।	0	1	2
99.	ধূমপানকরে , কিছু চিবোয় অথবা নাকে নেয়।	0	1	2

100.	ঘুমের সমস্যা রয়েছে। (বর্ণনা):	0	1	2
101.	বিদ্যালয় থেকে পালিয়ে আসে।	0	1	2
102.	স্বাভাবিকের তুলনায় কম সক্রিয়, ধীরগতিতে চলাফেরা করে অথবা কোন কাজে শক্তি হারায়।	0	1	2
103.	অসুখী ,দুঃখী অথবা অবসাদগ্রস্হ।	0	1	2
104.	কোন কারণ ছাড়াই জোরে কথা বলে।	0	1	2
105.	তামাক বা মদ ছাড়া অন্য কোন নেশা কারক দ্রব্য নেয়। (বর্ণনা):	0	1	2
106.	সুন্দর জিনিসকে ভাঙচুর করা।	0	1	2
107.	দিনের বেলায় জামাকাপড়ে প্রস্রাব করে।	0	1	2
108.	বিছানায় প্রস্রাব করে।	0	1	2
109.	ঘ্যনঘ্যন করে।	0	1	2
110.	বিপরীত লিঙ্গের হতে চায়।	0	1	2
111.	নিজেকে গুটিয়ে নেয় বা অন্যের সঙ্গে যুক্ত হয় না	0	1	2
112.	সবসময় দুশ্চিন্তাগ্রস্হ থাকে।	0	1	2
113.	এখানে তালিকায় নেয় এরকম কোন সমস্যা যদি আপনার শিশুর থাকে তা লিখুন।			
		0	1	2
		0	1	2
		0	1	2

Appendix IV

Department of Education, Jadavpur University
jointly with
Arogya Sandhan Charitable Trust, Santoshpur
presents

RCI, New Delhi (Govt. Of India) recognised three Days International
Seminar cum-Continuing Rehabilitation Education (CRE) Programme on

SKILLS FOR COUNSELLING PARENTS OF
STUDENTS WITH SPECIAL NEEDS

Date: 28th Feb - 1st March, 2020. Time: 10.30 A.M. - 6.00 P.M. Venue: Jadavpur University

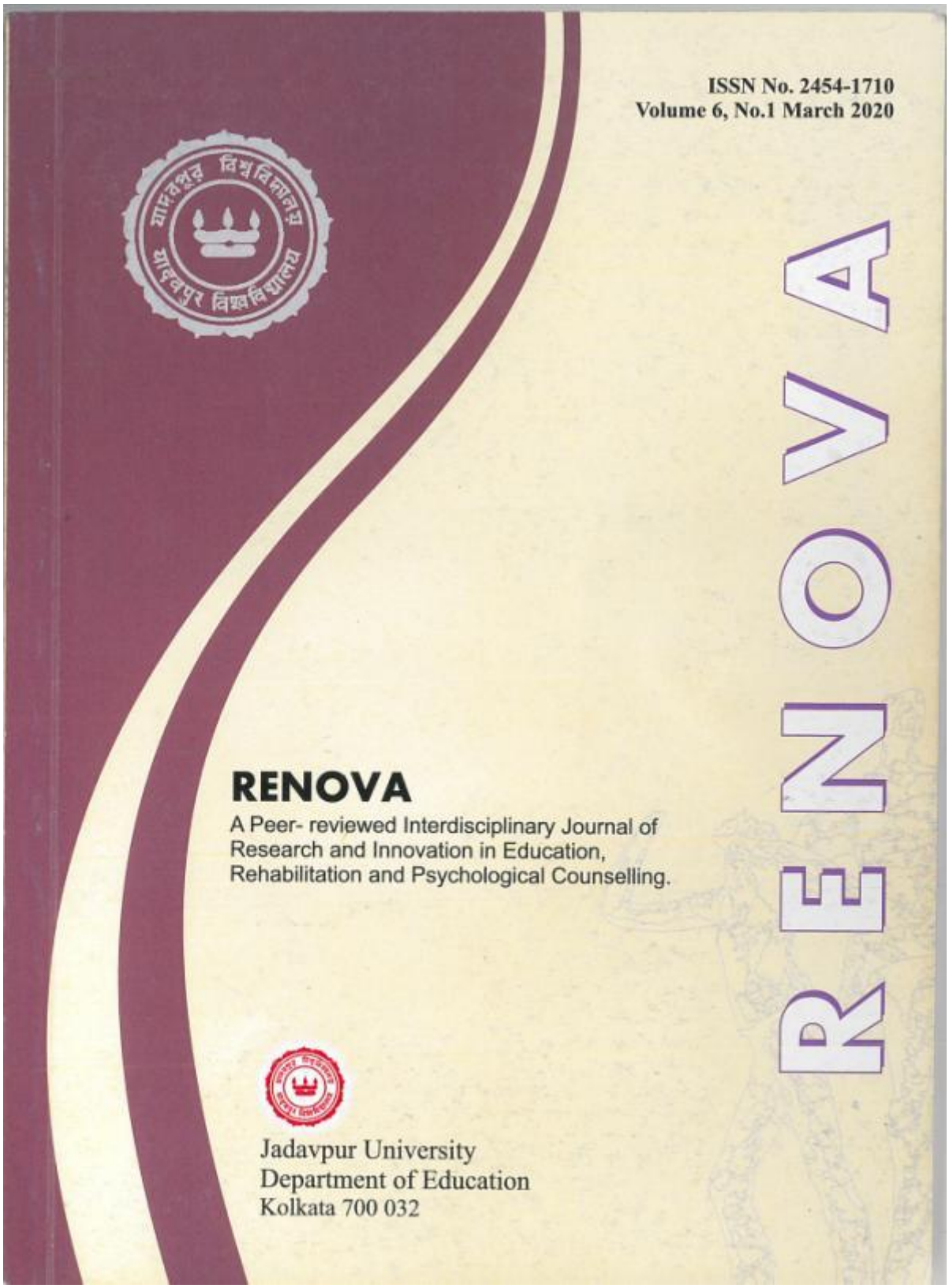
Certificate

Certified that Prof./Dr./Mr./Ms. Pinki Mondal
of Ph. D. Scholar, Department of Education, Jadavpur University
has actively participated as a Resource Person/Trainee/Paper Presenter and
delivered a speech/presented a paper on 'Survey of Problem Behaviours
Exhibited Among Different Types of Challanged Children ... Counselling'
in the RCI approved Seminar cum Continuing Rehabilitation Education (CRE)
Programme on 'SKILLS FOR COUNSELLING PARENTS OF STUDENTS WITH
SPECIAL NEEDS'

(Mr. Niranjan Biswas)
General Secretary
Arogya Sandhan Charitable Trust

(Prof. Bishnupada Nanda)
Head, Department of Education
Jadavpur University

Appendix V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TREATMENT OF AGGRESSIVE BEHAVIOR OF INTELLECTUALLY CHALLENGED LEARNER BY USING PRIMARY AND SOCIAL REINFORCERS

Pinki Mondal* & Prof. (Dr.) Bishnupada Nanda**

Abstract: *Behavior* Disorders *are common in people with intellectual disability. Reported is the study of aggressive behavior of a 11 years intellectually challenged learner in the special class. Single case research design of ABC Model was used for behavior modification. Result showed that problem behavior like aggressive behavior of retarded learners can be modified by using primary and social reinforcers.*

Keywords: Aggressive behavior, intellectually challenge learner, primary and social reinforcers.

Introduction: Intellectually challenged children shows different types of problem behaviors – aggressive behavior, destructive behavior, self-injurious behavior, stereotyped behavior etc. The aggressive behavior and self-injurious behavior lead to injury of the self or others or may destroy the property (Lowe et.al., 2007; Smith Matson,2010a). Problem behaviors create different types of problems in individual, family, institution. Intellectually challenged children may manifest multiple types of problem behaviors in the same period (Lowe et.al., 2007). About 10% of the intellectually challenged manifest major problem behaviors like self-injury, destructiveness, aggression and destruptive behavior, as established in the study of Emerson et.al. (2001). Some of the intellectually challenged may show verbal aggression and temper-tantrums (Deb & Joyce, 1999; Cooper et.al. 2007). The challenging behaviors are more common among intellectually challenged children with epilepsy (Bowley & Kerr, 2000; Deb & Joyce 1999, Espie et.al. 2003). A different view was established by Arshad et.al. (2011) as they established that problem behaviors are less among intellectually challenged with epilepsy compared to only intellectually challenged children. Increased rates of behavioral disorders found among intellectually challenged with autism spectrum disorder (Smith & Matson 2010a ,2010b). In a good volume of research paper, it was established that problem behaviors are common among intellectually challenged children (Emerson, 2001; Von Tezchimer, 2003; Emerson et.al.,2010b). In the study of Holden and Gitlesen (2006) it was established that severe form of problem behaviors decreases with increase of age that is above 50 years. Higher or lower degree of aggressive behaviors were manifested in the intellectually challenged children and adult, as established by different researchers (Lowe et.al., 2007; Deb, Thomas & Bright, 2001b; Crocker et.al. 2006). In the study of Tyrer et.al. (2006) it was established that physical aggression is most common among people with more severe intellectual disability. They found that physical aggression is most common among men.

So aggressive behavior is very common among children with intellectual disability.

Method and Procedure:

Subject: 'X' is a moderately retarded boy of 11 years old. He born in 8 months age having low birth weight. At about one year he was infected by severe fever having high temperature. In about one and half years age he was diagnosed by Paediatrician that he has delayed developmental milestones. At about

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five years age he was diagnosed as moderately retarded boy having some maladaptive behaviors. His assessment was done jointly by a special educator (MR) and a clinical psychologist. As his age increased, he showed aggressive and destructive behaviors very frequently.

Observation: The present researcher observed that 'X' is admitted in a special class of a special school for the intellectually challenged, autistic, hyper-active and cerebral palsied children. His special school is well equipped having sufficiently trained special educators for each classes.

The investigator observed that 'X' showed frequent aggressive behavior as and when his class teacher gave him any kind of instruction. 'X' prefers to remain ideal in his classroom, performing no task. His speech is not clear and, in most cases, he was unable to express his feelings through speech. When he became severely aggressive, he showed destructive behaviors by throwing his bag, books, water-bottle, and even tiffin box towards his teacher as well as to his peers. The investigator also observed that when 'X' showed aggressive and destructive behaviors she cried and even sometime gave him corporal punishment by beating in his body, but without using any kind of behavior modification technique.

Selection of a Procedure: The researcher discussed in detail with his parents and other family members as well as with his class teacher regarding the preference of 'X'. She found that 'X' prefers to get 'salty nimkis' and social reinforcer like 'verbal praise'.

Therefore, the investigator tried to modify the aggressive behavior of 'X' by using primary reinforcer (e.g. salty nimkis) and social reinforcer (e.g. verbal praise) parallelly.

Results:

Baseline 1: Baseline data were collected in the same classroom where the client used to sit regularly. The baseline sessions were of five sessions of 15 minutes duration each. The researcher counted the frequency of showing aggressive and destructive behaviors of 'X' in 15 minutes session when he was given some task. Collected data are plotted in the following table-

Table : 1

Target behavior on baseline 1 : aggressive behavior (total period of each session is 15 minutes)

Condition	Days	Frequency (f) of Aggressive Behavior
B A S E L I N E 1	On Baseline	
	Day 1	3
	Day 2	4
	Day 3	2
	Day 4	3
	Day 5	3

Frequency mean (fm) of aggressive behavior is 3.0.

Intervention 1: Intervention sessions were started in the same class under the same class teacher. The intervention sessions were of 15 days duration. The investigator herself specified the target behavior (that is arranging the blocks according to alphabet order) at the beginning of each session and she remained fully attentive to the client to check whether he performed specified target behavior. The investigator used

both the primary and secondary reinforcer during the entire sessions. The investigator clearly described to the client at the beginning of each session regarding when and in what condition the client can receive the positive reinforcers (primary and social reinforcers). After 15 days of 15 sessions the investigator observed that there is remarkable decrease of aggressive behavior.

Table: 2

Target behavior after intervention: aggressive behavior (total period of each session is 30 minutes each).

Condition	Days	Interval Schedules	Frequency of aggressive behavior
I N T E R V E N T I O N I	Day 1	FIS= 3 Minutes	4
	Day 2		3
	Day 3		4
	Day 4		3
	Day 5		3
	Day 6		2
	Day 7		3
	Day 8		3
	Day 9		3
	Day 10		2
	Day 11		2
	Day 12		3
	Day 13		2
	Day 14		2
	Day 15		1

FIS=Fixed ratio schedule

Frequency mean (fm) =2.8

Table: 3

Comparative Result of baseline 1 (table 1) and intervention 1 (table 2) of target behavior (aggressive behavior)

Condition	Frequency mean of aggressive behavior
Baseline 1	3.0
Intervention 1	2.8

A comparative study of frequency mean of baseline 1 and intervention 1 showed in table 3 makes it clear that the client gradually showed less frequency of aggressive behavior during the intervention 1 session. Therefore, it can be said that the treatment procedure was helpful for the client and a second baseline session started.

Baseline 2 (Post Treatment): All the conditions of observations in this phase was identical to the first baseline phase. It was noted that during baseline 2 sessions the rate of problem behaviors conducted to remain within the range during the session withdrawal of treatment.

Condition	days	Frequency (f) of aggressive behavior
B		
A		
S		
E	1	4
L	2	5
I	3	2
N	4	3
E	5	4
2		

Table: 4

Target behavior on baseline 2 aggressive behavior (total period of each session is 15 minutes)

Condition	Days	Interval Schedules	Frequency of aggressive behavior
	1		3
I	2		1
N	3		2
T	4		2
E	5		1
R	6		1
V	7	FIS=3	2
E	8		1
N	9		1
T	10		2
I	11		1
O	12		1
N	13		1
2	14	VIS=3-8	2
	15		1

Frequency mean (fm) of aggressive behavior is 3.2.

Intervention 2: It was observed that during baseline 2 sessions there is increased frequency of target behavior (aggressive behavior) increased than the intervention 1 sessions and even baseline 2 sessions. Therefore, the investigator started invention 2 phase of 15 days in this phase also. All the treatment procedures remained same like the intervention 2 phase. Only change is first 10 days of the reinforcers were given by using fixed intervention schedule (FIS) and in the last five consecutive sessions variable interval schedules of 3-8 minutes were given.

Table : 5 Target behavior after invention 2: aggressive behavior (Total period of each session is 30 minutes)

Intervention 2 Result

Frequency mean (fm)=1.5

Comparative result of Baseline 2 (table 4) and Intervention 2(table 5) of target behavior (aggressive behavior)

Condition	Frequency mean of aggressive behavior
Baseline 2	2.6
Intervention 2	1.5

Maintenance: As the frequency mean of target behavior (aggressive behavior) reduced progressively but continued to remain at a very low level. Therefore, attempt was made by the researcher for generalization and maintenance in the client's original class for one week. The researcher trained the original class teacher and care giver regarding how to support the client so that the client can maintain his change. After one week the investigator again observed the class as well as the class teacher's treatment procedure.

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From this study it can be said that use of primary reinforcer (e.g. salty nimkis) and social reinforcer (e.g. verbal praise) are supportive in changing the aggressive behavior of intellectually challenged.

It can be recommended that in all this special school and inclusive school having intellectually challenged learners, there is need of trained, skilled and experienced special educators. They should have clear knowledge and training about problem behavior as well as their modification procedures.

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Mondal, P. & Nanda, B. (2020). Extent and Types of Repetitive / Stereotyped Behaviours Existed among School Enrolled Developmentally Challenged Children- A Survey. *IJSE*, V (1), ISSN: 2229-3612, Kolkata, PP

EXTENT AND TYPES OF REPETITIVE / STEREOTYPED BEHAVIOURS EXISTED AMONG SCHOOL ENROLLED DEVELOPMENTALLY CHALLENGED CHILDREN- A SURVEY

Pinki Mondal* & Bishnupada Nanda**

Abstract

Reported is the study of repetitive / stereotyped behaviours of developmentally challenged mainstream school enrolled learners. 20 developmentally challenged learners were identified. Respondents were the parents of these challenged children. AAMR rating scale was used for data collection. Investigators collected data directly from the parents by interview using the rating scale during January-February, 2020. Result showed that developmentally challenged learner showed different types of repetitive / stereotyped behaviours either frequently or occasionally. Further in-depth study and regular training of the parents are recommended.

Key-words: Maladaptive Behaviours, Repetitive or Stereotyped Behaviour, Developmentally Challenged Learners.

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**Prof. (Dr.) Bishnupada Nanda, Professor & Former Head, Department of Education, Jadavpur University

INTRODUCTION

Among the intellectually adults stereotyped behaviour is very common. Stereotyped behaviour is a kind of repetitive behaviour that has no apparent adaptive purpose. Body rocking, head rolling, twisting fingers in front of the eyes, arm flapping, picking at oneself or jumping ups and downs are some of the common stereotyped behaviours shown by the developmentally challenged learners. According to the American Association of Mental Retardation (AAMR) stereotyped behaviours are of 11 types. In the study of Nanda and Majumder (2007) it was established that out of 100 intellectually challenged sample 67 show head nodding, 62 show tapping fit continuously and 52 show thumb sucking or putting fingers into mouth. These problem behaviours have been found to be associated with low level of intelligence (Berkson & Davenport, 1962; Guess, 1966) and younger age (Kravitz & Bohem, 1971; Thelen, 1979). In most cases the parents as well as the teachers in the school can identify these problem behaviours. Restricted and repetitive behavior patterns are also common in children with Autism Spectrum Disorder (ASD) (American Psychiatric Associations, 2013). The same deficits and atypical behaviours are also present in intellectually challenged and sensory disabled (de Vaan et. al., 2013; Hobdon, 2005; Hoevenaarsvanden Boom et . al., 2009). This stereotyped behavior is very common among intellectually challenged (Murdoch,1997). Stereotyped behaviourism are common among intellectually challenged- Autistic children than those who have only intellectual impairment (Bodfish et. al., 2000; Goldman et. al., 2009).

Researchers observed that among intellectually challenged stereotyped and repetitive behaviours like pacing and bouncing and balancing of objects only occurred in the non ASD group (de Vaan, Vervloed, Knoors & Verhoeven, 2020). Among multiple disabled with intellectual impairment self-injurious stereotyped behavior is not common like the children with ASD (de Vaan et. al., 2020).

Questions arise why the developmentally challenged and multiplechallenged show stereotyped behaviours. According to Ingells, all the living organisms have a need for a certain amount of motoractivity. Developmentally challenged and multiplechallenged children are unable to perform motor activities according to their age. Therefore, they satisfy their need of motor activities by showing stereotyped maladaptive behaviours. Others viewed that child showed stereotyped behaviour to reduce anxiety or tension. Frequency of stereotyped behavior increases when the individual is frustrated. Deprivation from food also increases the frequency

of stereotyped behaviour (Berkson & Mason,1967). So stereotyped behavior is due to the internal conflict of the individual. It is also postulated that if an individual shows stereotyped behaviour, adults and parents are attracted by these behaviours. That is, these behaviours draw attention of others. In the present study the investigator tried to identify the types of stereotype behaviours among developmentally challengedchildren.

METHOD AND PROCEDURE:

SAMPLE:

A total number of 20 parents of children with developmentally challenged were taken as the respondents of the study. All these respondents were from Kolkata metropolitan city. These children are attending the mainstream government aided Bengali medium primary schools. Their age group is 6-12 years. Both the boys and girls were considered. In this study some other independent variables, such as, age of onset of disability, probable causes of developmental disability etc., were not considered.

TOOL:

The investigators used Behaviour Rating Scale developed by American Association of Mental Retardation (AAMR). Repetitive / Stereotyped behaviour is a dimension included in the AAMR Rating Scale. These dimensions have 11 items. Scoring key for the items is Never - 0, Occationally-1 and Frequently-2. In this scale frequency of problem behaviours were major.

COLLECTIONOFDATA:

Parents of the sample were the informants of this investigation because developmentally challenged children are unable to identify and report about their problem behaviours. The parents were requested to fill up the AAMR Rating Scale according to their knowledge. The checklist was then collected, cleaned, quantified and tabulated systematically as far as possible.

RESULT:

Table No.:1 show in grepetitive / stereo typed behaviours of developmentally challenged learners.

DIMENSIONS	ITEMS	FREQUENCY OF PROBLEM BEHAVIOUR		
		NEVER	OCCASIONALLY	FREQUENTLY
Repetitive/ Stereotyped Behaviours	1.Thumb sucking/ putting fingers into mouth	2	5	13
	2.Nailbiting	2	4	14
	3.Nosepicking	2	7	11
	4. Teeth grinding	8	7	5
	5.Headnodding	3	8	9
	6.Bodyrocking	3	2	15
	7. Tapping feet continuously	5	8	7
	8. Waving hands/ body parts continuously	1	8	11
	9.Swinging round And round	6	6	8
	10.Jumpingupand down	6	6	7
	11. Does same activity over and over again	2	9	9

DISCUSSION:

Developmentally challenged children are unable to draw external stimuli either due to their low level of intelligence or they are unable to see or hear or unable to analyze the environmental stimuli as well as their own situation. On the other hand, due to the presence of problem behaviours and more specially stereotypes / repetitive behaviours they are unable to learn any new skill. Stereotyped behaviours are attention seeking behaviours. Nanda in his series of investigations (1995, 1998, 1999, 2004, 2005, 2006, 2008.) observed that stereotyped/repetitive behaviours are common among developmentally challenged learners. These behaviours make them segregated from the community (Eyman & Call, 1977), family as well as peers.

In the present study it is not that 75% (n=15) learners frequently showed body rocking behaviour. 70% (n=14) learner showed nail biting behaviour frequently and 65% (n=13) learners showed thumb sucking / putting fingers into mouth frequently. Out of 11 items identified by AAMR it was noted that item no. 3 (i.e., Nose picking) and item no.8 (i.e., Waving hands/ body parts continuously) were showed by 95% (n=19) learners, either frequently or occasionally. From the table no.1, it is clear that the repetitive/stereotyped behaviours are commonly found among the developmentally challenged learners.

Repetitive / stereotyped behaviours particularly body rocking behaviours are common type of self-stimulatory behavior (Schwartz, Gallagher & Berkson, 1986). Lovaas, et. al. (1987), Koegel and Covert (1972) reported that stereotyped behaviours have a blocking effect on the acquisition of new behaviours.

CONCLUSION:

Result of the study clearly demonstrates that developmentally challenged children possess different types of repetitive / stereotyped behaviours, which are self-stimulatory in nature. The present study is significant in the present scenario because since 1998, i.e., the period of DPEP (District Primary Education Programme) and SSA (Sarva Siksha Abhiyan) in 2002, different categories of developmentally challenged children were enrolled, retained and educated in the mainstream schools with or without any support from the resource teachers. It means that all the mainstream teacher should be clearly sensitized and trained about identifying the problem behaviours among the learners as well as how to modify these problem behaviours in the classroom settings. Therefore, it is cleared that if we want to make inclusive education a success in the present scenario there is no other alternative than to train all the main stream school teachers about behaviour modification technology indepth.

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