



# Social Maturity and Problem Behaviour in Children with Autism Spectrum Disorders and Intellectual Disabilities

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## Abstract

**Background:** Children with autism spectrum disorders and intellectual disabilities generally manifest problem behaviours and have impaired social maturity. The children with autism spectrum disorders have lower social skills and exhibit more challenging behaviours such as self-injury, stereotypical behaviour, impulsivity and hyperactivity as compared to children with intellectual disabilities. Duragana, Rea, & Ivana (2014) found that children with autism spectrum disorders manifested lower adaptive behaviour and exhibited more maladaptive behaviours than children with intellectual disabilities [1].

**Methods:** Research team assessed the social maturity and problem behaviour in a purposive sample of children (n=50) with autism spectrum disorders and intellectual disabilities. Semi-structured interviews were conducted to collect research data from informants on Parental Interview Schedule (PIS), Indian Scale for Assessment of Autism (ISAA), Vineland Social Maturity Scale (VSMS) and Behavioral Assessment Scale for Indian Children with Mental Retardation Part-B (BASIC-MR-B). The relationships were explored between social maturity and problem behaviour with respect to gender, birth weight, birth cry and parents consanguineous marriage of children with autism spectrum disorders and intellectual disabilities.

**Results:** Pearson's correlation co-efficient ( $r$ ) was calculated and it was found that social maturity has no correlation with problem behaviour in children with autism spectrum disorders ( $r = 0.015$ ,  $p < 0.01$ ) and in children with intellectual disabilities ( $r = 0.366$ ,  $p < 0.01$ ). The results of the qualitative analysis showed that there is a significant difference between children with autism spectrum disorders and intellectual disabilities with respect to their socio-demographic profiles. The results of the quantitative analysis showed that the social maturity and problem behaviour in children with autism spectrum disorders and intellectual disabilities with respect to gender, birth weight, birth cry and parents consanguineous marriage were statistically insignificant. Results of this study are discussed pertaining to the assessment of social maturity and problem behavior in children with autism spectrum disorders and intellectual disabilities.

**Conclusions:** Present study concluded that there is no association between social maturity and problem behavior in children with autism spectrum disorders and intellectual disabilities, and it was also observed that there is a significant difference in children with autism spectrum disorders and intellectual disabilities with respect to their socio-demographic variables.

**Keywords:** Autism Spectrum Disorders; Intellectual Disabilities; Social Maturity and Problem Behaviour

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## Introduction

Neurodevelopmental disorders are a group of conditions with onset in developmental period. The disorders typically manifest early in development, often before the child enters grade school and are characterized by developmental deficits that produce impairment of social, academic or occupational functioning. The range of developmental deficits varies from very specific limitations of learning or control of executive to global impairment of social skills or intelligence. The neurodevelopmental disorders frequently co-occur. For some disorders, the clinical presentation includes symptoms of excess as well as deficits and delays in achieving expected milestones. DSM-V categorized Autism Spectrum Disorders and Intellectual Disabilities as Neurodevelopmental disorders. Autism is a severely incapacitating lifelong neuro-developmental disorder that typically occurs in the first three years of life. It causes impairment or disturbance in three main areas Social skills, communicative (verbal as well as non-verbal) skills and in their repetitive and restricted behaviors. Intellectual disability (ID), also called intellectual developmental disorder is a neurodevelopmental disorder that typically occurs before the age 18 years. It is characterized by impaired intellectual and adaptive functioning which is defined by an IQ score below 70 as well as a delay in general daily living skills. Intellectual disability is an alternative term which is currently preferred for the disability historically referred to as mental retardation. These two groups of neurodevelopmental disorders generally manifest problem behaviours and have impaired social maturity. Social Maturity is the term commonly used in two ways, with reference to the behaviour that conforms to the standards and expectations of the adult and secondly, with reference to the behaviour that is appropriate to the age of the individual under observation. Behaviour can be said as problem behaviour, when behaviour is harmful to one-self, harmful to others, interferes with learning tasks, not socially accepted and not age appropriate.

### ■ Autism Spectrum Disorder

Autism spectrum disorder is a neurodevelopmental disorder, characterized by significant impairment in social interaction, communication, restricted interests, and repetitive behaviours. Autism shows signs during infancy or childhood and generally follows a steady course without remission or relapse. Impairments result from maturation-related changes in various systems of the brain. Autistic disorder is one

disorder among Autism Spectrum Disorders which includes Rett syndrome, Childhood disintegrative disorder, Pervasive Developmental Disorder-Not Otherwise Specified (PDD-NOS) and Asperger's syndrome. In the month of May 2013, the new publication of DSM-5 Diagnostic Manual has merged these autism subtypes into one umbrella diagnosis of ASD [2].

### ■ Intellectual Disability

Intellectual disability is a neurodevelopmental disorder that typically occurs before the age of 18 years. It is characterized by impaired intellectual and adaptive functioning which is defined by an IQ score below 70 as well as a delay in general daily living skills. Intellectual disability is an alternative term which is currently preferred for the disability historically referred to as mental retardation. Although the preferred name is intellectual disability, the authoritative definition and assumptions promulgated by the American Association on Intellectual and Developmental Disabilities (AAIDD and previously, AAMR) remain the same as those found in the Mental Retardation, Definition, Classification and Systems of Supports manual (Luckasson et al., 2002) [3,4].

### ■ Behavior Problem

Behavior problem such as property destruction, physical aggression, self-injury, and tantrums are major barriers to effective social and educational development (Horner et al., 2000; Riechle, 1990)". Such behaviours put young children at risk for exclusion and isolation from social, educational, family and community activities (Sprague and Rian, 1993). Behaviour problem can also be defined as troublesome, risk taking or disruptive behaviour that is more extreme than occasional errors in judgment and requires professional intervention to avoid legal difficulties.

### ■ Social Maturity

Social maturity is the ability to function in an appropriate responsible manner and understanding of the social rules and norms in place in a given culture and the ability to use that knowledge effectively. Self-care skill, healthy social interactions and an appreciation for others feelings are some indicators of social maturity in certain age groups.

### ■ Rationale of the Study

The evidences indicated that children with autism spectrum disorders and intellectual disabilities have problems in various spheres

of life like social relationships, language & communication problems, cognitive problems, problem in social maturity and a number of problem behaviours such as self injurious behaviours, repetitive behaviours, hyperactivity etc. However these areas of research have got least attention from researchers. The focus of the research was on exploration and association of social maturity and problem behaviour in children with autism spectrum disorders and intellectual disabilities. There is a greater need for intervention oriented methodologies, which will determine the direction of behavior management and social skill development in children with autism spectrum disorders and intellectual disabilities. The study has followed the principles of bio-psycho-social model. Present research will change the vision of those professionals who are focusing either on medical model or social model and ignoring all other integrated models of health and disability. Finally, effective implementation of evidence-based treatments not only eliminates social skill problems or problem behaviours but also improves quality of life of children with autism spectrum disorders and intellectual disabilities. Early interventions including behavior modification will also help to improve social skills and decrease problem behaviours of children with autism spectrum disorders and intellectual disabilities.

### ■ Research Questions

- To assess the relationship between social maturity and problem behavior in children with autism spectrum disorders and intellectual disabilities.
- To assess the relationship between intelligence and problem behaviors in children with autism spectrum disorders and intellectual disabilities.
- To assess children with autism spectrum disorders and intellectual disabilities on dimensions of social maturity scale and BASIC-MR Part-B with respect to their gender, birth weight, birth cry and their parent's consanguineous marriage.
- To compare and contrast children with autism spectrum disorders and intellectual disabilities with respect to their socio-demographic profile.

### Methodology

The present study is a non-experimental, exploratory and correlational research. The purposive sample of children (n=50) with autism spectrum disorders and intellectual disabilities

were collected from various areas of Ganderbal, Pulwama, Kupwara and Srinagar districts including the Autism Clinic of IMHANS. Secondary data was collected from Kashmir Institute for Developmental Disabilities, Mental Health and Neurosciences (ASK-NGO) Ganderbal to reach children with autism spectrum disorders, intellectual disabilities and their families in all selected districts. Principle investigator of the project has taken the age range of 5 to 15 years in the present study. The present research was a collaborative research among the professionals from KIDDMHANS Ganderbal, PG Department of Psychology University of Kashmir and IMHANS, Govt. Medical College Srinagar. The whole project was funded by one humanitarian organization namely "The Able Society of Kashmir (ASK-NGO) Ganderbal".

### ■ Tools Used In the Study

The research tools applied to collect the information about clients and their families were Parental Interview Schedule (PIS), Indian Scale for Assessment of Autism (ISAA), Vineland Social Maturity Scale (VSMS) and Behavioral Assessment scales for Indian Children with Mental Retardation Part-B (BASIC-MR-B). The parental interview schedule was developed by principal investigator of the project. Other research instruments have been developed by renowned clinical psychologists like Dr. Saroj Arya from National Institute for the Mentally Handicapped (NIMH) Secunderabad A.P.

### ■ Procedure of Data Collection

The purposive sampling technique was used to gather information from participants. The secondary data was collected from Kashmir Institute for Developmental Disabilities, Mental Health and Neurosciences (ASK-NGO) Ganderbal. After that research team visited the families of children with autism spectrum disorders and intellectual disabilities for their assessments and parental interviews. Some of the children with autism spectrum disorders and intellectual disabilities were identified at IMHANS Autism Clinic which was included in the research. Informed consent was taken from the parents of these children in order to seek their voluntary participation and only those participants were included who agreed to take part in research study.

### ■ Statistical Analysis

The research data was analyzed by using Statistical Package for Social Science version 20.0 (SPSS-V

20.0). Statistical techniques used for analyzing data were: calculating frequencies, percentages, Mean Standard Deviation and t-test. Statistical tests were used for testing significant difference with respect to independent variables like gender, birth weight, birth cry and parents consanguineous marriage. Pearson's correlation coefficient was used to find out the relationship between social maturity and problem behaviors in children with autism spectrum disorders and intellectual disabilities. Pearson's correlation coefficient was used to find out the relationship between Intelligence Quotient (IQ) and problem behaviors in children with autism spectrum disorders and intellectual disabilities.

The (Table 1) shows correlation between social maturity and problem behavior in children with autism spectrum disorders and intellectual disabilities. In order to measure correlations among variables Pearson's correlation coefficient was used. In this study the correlation between social maturity and problem behaviour in children with autism spectrum disorders was found to be insignificant as correlation coefficient ( $r = 0.015$ ) is not significant at  $p \leq 0.05$  level of significance. The study also revealed that there is no correlation between social maturity and problem behaviour in children with intellectual disability as correlation coefficient ( $r = 0.366$ ) is not significant at  $p \leq 0.05$  level of significance. In the light of above empirical evidence, the hypothesis no. H0 which states that "There is no correlation between social maturity and problem behaviour in children with autism spectrum disorders and intellectual disability" stands accepted.

The (Table 2) shows the t-values of the dimensions of the Social Maturity and Problem Behaviour of children with autism spectrum disorders and intellectual disability with respect to their gender, birth weight, birth cry and parent's consanguineous marriage. The table shows that the obtained 't' value of birth cry with communication domain of social maturity scale in children with autism spectrum disorders is -2.45 which is significant at  $p < .05$  level of significance. This indicates that children with autism spectrum disorders differ significantly on this dimension of social maturity with respect to their birth cry. However on the rest of the domains the results were found to be insignificant. The results were also found to be insignificant on all the domains of social maturity with respect to gender, birth weight and parent's consanguineous marriage in

children with autism spectrum disorders. The obtained 't' value of birth weight with self-help eating domain of social maturity in children with intellectual disability is -2.64 which is significant at  $p < .05$  level of significance. The results were also found to be insignificant on all the domains of social maturity with respect to gender, birth cry and parent's consanguineous marriage in children with intellectual disability. This indicates that children with intellectual disability differ significantly on this dimension of social maturity with respect to their birth weight. The 't' values of birth weight with rebellious behaviour domain & parent's consanguineous marriage with hyperactivity domain of problem behaviour in children with autism spectrum disorders are 2.98 & 2.06 respectively which are significant at  $p < .05$  level of significance. This indicates that children with autism spectrum disorders differ significantly on these dimensions of problem behaviour with respect to their birth weight and parent's consanguineous marriage. However on the rest of the domains of problem behaviour the results were found to be insignificant. The results were also found to be insignificant on all the domains of problem behaviour with respect to gender and birth cry in children with autism spectrum disorders. The 't' value of gender with repetitive behaviour domain of problem behaviour in children with intellectual disability is - 2.05 which is significant at  $p < .05$  level of significance. This indicates that male & female children with intellectual disability differ significantly on this dimension of problem behaviour. The 't' values of birth weight with hyperactivity and rebellious behaviour domains of problem behaviour in children with intellectual disability are - 2.07 & - 2.88 which are significant at  $p < .05$  level of significance. This indicates that children with intellectual disability differ significantly on these dimensions of problem behaviour with respect to their birth weight. The 't' values of parent's consanguineous marriage with hyperactivity and fear domain of problem behaviour in children with intellectual disability are 2.58 & -2.02 which are significant at  $p < .05$  level of significance. This indicates that children with intellectual disability differ significantly on these dimensions of problem behaviour with respect to their parent's consanguineous marriage. The 't' value of birth cry with fear domain of problem behaviour in children with intellectual disability is -2.02 which is significant at  $p < .05$  level of significance. This indicates that children with

intellectual disability differ significantly on this dimension of problem behaviour with respect to their birth cry. However on the rest of domains the results were found to be insignificant. Thus our hypothesis H0 which states that, “There will be no significant difference in children with autism spectrum disorders and intellectual disability on dimensions of Social Maturity and Problem Behaviour with respect to their gender, birth weight, birth cry and their parent’s consanguineous marriage” stands accepted

(Table 3) shows correlation between IQ and Ten dimensions of Behavioral Assessment Scale i.e., [BMR-1, BMR-2; BMR-3; BMR- 4; BMR-5; BMR-6; BMR-7; BMR-8; BMR-9 and BMR-10]. The table indicates that out of the ten dimensions of behavioral assessment scale two dimensions namely BMR-3 (.42\*) and BMR-9 (.40\*) has a significant positive correlation with IQ. Whereas the rest of nine dimensions of behavioral assessment scale namely, BMR-1 (.24), BMR-2 (-.06); BMR-4 (.04); BMR-5 (-.10); BMR-6 (.02); BMR-7 (.21); BMR-8 (.33); and BMR-10 (.29) depicted an insignificant correlation with IQ. Thus, our hypothesis Ho which states that, “There will be no correlation between IQ and problem behaviour in children with autism spectrum disorders” stands accepted.

(Table 4) shows correlation between IQ and Ten dimensions of Behavioral Assessment Scale i.e., [BMR-1, BMR-2; BMR-3; BMR- 4; BMR-5; BMR-6; BMR-7; BMR-8; BMR-9 and BMR-10]. The table indicates that out of the ten dimensions of behavioral assessment scale only one dimension namely BMR-3 (.68\*\*) has a significant positive correlation with IQ. Whereas the rest of nine dimensions of behavioral assessment scale namely, BMR-1 (.07), BMR-2 (-.00); BMR-4 (-.36); BMR-5 (-.19); BMR-6 (.12); BMR-7 (.18); BMR-8 (.25); BMR-9 (-.17) and BMR-10 (-.20) depicted an insignificant correlation with IQ. Thus, our hypothesis Ho which states that, “There will be no correlation between IQ and problem behaviour in children with intellectual disabilities” stands accepted.

■ **Qualitative Analysis**

The qualitative analysis was also done on children with autism spectrum disorders and intellectual disability with respect to variables like background information, family history, behavioural history, parental perceptions, parental awareness and challenges faced by family of children with ASDs and IDs. The results revealed that children with autism

**Table 1:** Showing correlation between social maturity and problem behaviour in children with autism spectrum disorders and intellectual disability.

Variables	Autism Spectrum Disorders	Variables	Intellectual Disability
Social Maturity	r = 0.015 <sup>NS</sup>	Social Maturity	r = 0.366 <sup>NS</sup>
Problem Behaviour		Problem Behaviour	

\* p ≤ 0.05 level of significance; NS=Not Significant

**Table 2:** Showing comparison of mean scores of dimensions of Social Maturity & Problem Behaviour of children with Autism Spectrum Disorders & intellectual disability with respect to their gender, birth weight, birth cry and parent’s consanguineous marriage (N=25).

Variables	Group	Category	N	M	SD	df	(t)
Birth Cry with Communication domain of VSMS	ASD	Immediate	8	75.77	31.53	23	-2.45*
		Delayed	17	42.94	30.58		
Birth weight with Self-Help Eating domain of VSMS	ID	Less than 2.5 Kgs	6	32.08	28.66	23	-2.64*
		2.5 – 3.5 Kgs	19	71.44	32.63		
Birth weight with Rebellious behaviour domain of BASIC MR- B	ASD	Less than 2.5 Kgs	8	6.75	1.75	23	2.98*
		2.5 – 3.5 Kgs	17	4.23	2.04		
Parent’s Consanguineous Marriage with Hyperactivity domain of BASIC MR-B	ASD	Yes	12	4.50	1.08	23	2.06*
		No	13	3.38	1.55		
Gender with Repetitive behaviour domain of BASIC MR-B	ID	Male	18	6.44	2.70	23	-2.05*
		Female	7	6.28	3.09		
Birth weight with Hyperactivity domain of BASIC MR-B	ID	Less than 2.5 Kgs	6	2.00	1.78	23	-2.07*
		2.5 – 3.5 Kgs	19	3.52	1.50		
Birth weight with Rebellious behaviour domain of BASIC MR-B	ID	Less than 2.5 Kgs	6	2.16	1.72	23	-2.88*
		2.5 – 3.5 Kgs	19	5.10	2.28		
Parent’s Consanguineous Marriage with Hyperactivity domain of BASIC MR-B	ID	Yes	13	3.76	1.48	23	2.00*
		No	12	2.50	1.67		
Parent’s Consanguineous Marriage with Fear domain of BASIC MR-B	ID	Yes	13	3.32	1.12	23	2.58*
		No	12	5.33	1.92		
Birth cry with fear domain of BASIC MR-B	ID	Immediate	7	2.86	2.19	23	-2.02*
		Delayed	18	4.78	2.10		

(\*sig. p≤.05), (<sup>NS</sup> p>.05)

spectrum disorders and intellectual disabilities differ significantly with respect to their socio-demographic profile. Thus, our hypothesis Ho which states that, “There will be no significant difference between children with autism spectrum disorders and intellectual disabilities with respect to their socio-demographic profile” stands rejected.

**DISCUSSION**

The aim of the present study was to assess social maturity and problem behaviour in children with autism spectrum disorders and intellectual disabilities. The results of qualitative analysis revealed that there is a significant difference between children with autism spectrum disorders and intellectual disabilities with respect to their socio-demographic profiles. The findings of the

**Table 3:** Showing correlation between IQ and behavioral assessment scale dimensions of autistic children.

	Dimensions of Behavioral Assessment Scale Part-B	Correlation Coefficient (r)
IQ	BMR-1 (Violent and Destructive Behaviours)	.24 <sup>NS</sup>
	BMR-2 (Temper Tantrums)	-.06 <sup>NS</sup>
	BMR-3 (Misbehaves with others)	.42 <sup>*</sup>
	BMR-4 (Self Injurious Behaviours)	.04 <sup>NS</sup>
	BMR-5 (Repetitive Behaviours)	-.10 <sup>NS</sup>
	BMR-6 (Odd Behaviours)	.02 <sup>NS</sup>
	BMR-7 (Hyperactivity)	.21 <sup>NS</sup>
	BMR-8 (Rebellious Behaviours)	.33 <sup>NS</sup>
	BMR-9 (Antisocial Behaviours)	.40 <sup>*</sup>
	BMR-10 (Fears)	.29 <sup>NS</sup>

(\*p≤.05) (\*\*p≤.01)

**Table- 4:** Showing correlation between IQ and behavioral assessment scale dimensions of intellectual disabled children.

	Dimensions of Behavioral Assessment Scale Part-B	Correlation Coefficient (r)
IQ	BMR-1 (Violent and Destructive Behaviours)	.07 <sup>NS</sup>
	BMR-2 (Temper Tantrums)	-.00 <sup>NS</sup>
	BMR-3 (Misbehaves with others)	.68 <sup>**</sup>
	BMR-4 (Self Injurious Behaviours)	-.36 <sup>NS</sup>
	BMR-5 (Repetitive Behaviours)	-.19 <sup>NS</sup>
	BMR-6 (Odd Behaviours)	.12 <sup>NS</sup>
	BMR-7 (Hyperactivity)	.18 <sup>NS</sup>
	BMR-8 (Rebellious Behaviours)	.25 <sup>NS</sup>
	BMR-9 (Antisocial Behaviours)	-.17 <sup>NS</sup>
	BMR-10 (Fears)	-.20 <sup>NS</sup>

(\*p≤.05) (\*\*p≤.01)

present study were also supported by previous literature in which it was found that socio demographic risk factors vary significantly by the type of disability and measures of income (Zimmerman, et. al 2011). Leonard, et. al 2011 examined the profiles of four categories mild, moderate and severe intellectual disabilities (ID), ASD with and without ID in which it was found that their profile varied considerably and identified a gradient effect where the risk factors for mild-moderate ID and ASD without ID were at opposite extremes while those for ASD with ID were at intermediate level. Fairthorne, et. al 2013 found that socio demographic factors operate quite differently for ASD and ID. Researchers found that high parental SES was positively associated with the risk of ASD and negatively associated with the risk of ID in the offsprings. The study also found that mothers of an advanced age group were more

likely to have a child with ASD than mothers of typically developing children. In contrast, mothers of a younger age group were more likely to have a child with ID than mothers of typically developing children.

The quantitative analysis of the present study revealed that the children with autism spectrum disorders don't differ significantly in social maturity and problem behaviours with respect to their gender, birth weight, birth cry and their parent's consanguineous marriage. The results were supported by previous literature in which it was found that there is not an increased risk of autism in children born with low birth weight or preterm (Williams, et. as 2007). Dhanesh and Karthikeyan 2012 found that there is no correlation in social quotient, activity level and non-verbal communication between male and female children with autism spectrum disorders [4]. However the results were also contradicted by previous literature in which highly significant association between gender and the risk of having autism spectrum disorders were found [5]. In another study it was found that children with autism spectrum disorders had significantly higher percentages of Low Birth Weight (LBW) and Very Low Birth Weight (VLBW) were associated with lower adaptive functioning, socialization, daily living skills and motor skills [6]. Salomone, et. al 2013 found that children with ASD are at higher risk of behavioural and emotional problems and has difficulty in the multiple areas which can also have a significant impact on their lives and those of their families. Richard, et. al 2012 concluded that self-injurious behaviour is prevalent in children with ASDs and the presence of ASD phenomenology increases with the risk of self-injury[7].

The results of the study also indicated that children with intellectual disabilities don't differ significantly on Social Maturity and problem behaviours with respect to their gender, birth weight, birth cry and their parent's consanguineous marriage. An epidemiological research on mental retardation in Pakistan reported that there is no association between consanguinity and mental retardation [8]. The results of present study were, however contradicted by previous literature in which, effect of prematurity and low birth weight were examined. The study reported that prevalence of mental disorders was 22.9% among children born prematurely, 28.7% among very low birth weight children and 18.9% among moderately low birth weight children compared with

15.5% in general child population. The study concluded that prematurity and low birth weight, are significant risk factors for mental health problems (Singh, et. al 2013)[4]. The results of another study revealed that there is an increased risk of mental retardation in the offsprings of parents with consanguineous marriage [9].

The result of the study also revealed that there is no correlation between social maturity and problem behaviours in children with autism spectrum disorders and intellectual disabilities [10-15]. The results were contradicted by previous literature in which it was found that participants with ASD had lower adaptive behavioural skills and exhibited more maladaptive behaviours than participants with intellectual disabilities [15-25]. The study also revealed that the structure of social maturity and adaptive skills between children and youth with ASD and ID was significantly different (Mamic et. al 2014). Minshavi 2007 found inverse, curvilinear relationship between problem behaviours and adaptive skills. The researcher assessed the extent to which communication, socialization and daily living skills predicted the presence of problem behaviours and found that individual domains did not significantly predict problem behaviours independently.

The present study also revealed that there is no correlation between IQ and problem behaviour in children with autism spectrum disorders and intellectual disabilities. The results of present study were contradicted by previous literature in which it was found that children with autism spectrum disorders, who exhibited more atypical behaviours and tend to have a lower level of non-verbal IQ, lower levels of expressive language, more severe social deficits and more repetitive behaviours [26-35]. Some of the previous researchers have shown contradicting results because the sample size of the present study was very less. The same study needs to be replicated on larger sample, so that the results can be generalized

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## Conclusion

Research, where social maturity and problem behaviour have been studied together in children with neuro-developmental disorders is still in its infancy. At present, there is no such research where these variables have been studied together in children with autism spectrum disorders and intellectual disabilities. The question whether

social immaturity and problem behaviour in children with autism spectrum disorders and intellectual disabilities are comparable to those of normally developing peers remains to be answered. The present study tries to assess social maturity and problem behaviour in children with autism spectrum disorders and intellectual disabilities. The results of qualitative analysis of the present study are consistent with previous research findings. The present study found that children with autism spectrum disorders and intellectual disabilities differ significantly with respect to their socio-demographic profile. The results of the quantitative analysis of the present study found that the social maturity and problem behaviour in children with autism spectrum disorders and intellectual disabilities with respect to gender, birth weight, birth cry and parents consanguineous marriage were statistically insignificant. The present study concluded that there is no correlation among social maturity, IQ and problem behaviour in children with autism spectrum disorders and intellectual disabilities.

Research, where social maturity and problem behaviour have been studied together in children with neuro-developmental disorders is still in its infancy. At present, there is no such research where these variables have been studied together in children with autism spectrum disorders and intellectual disabilities. The question whether social immaturity and problem behaviour in children with autism spectrum disorders and intellectual disabilities are comparable to those of normally developing peers remains to be answered. The present study tries to assess social maturity and problem behaviour in children with autism spectrum disorders and intellectual disabilities. The results of qualitative analysis of the present study are consistent with previous research findings. The present study found that children with autism spectrum disorders and intellectual disabilities differ significantly with respect to their socio-demographic profile. The results of the quantitative analysis of the present study found that the social maturity and problem behaviour in children with autism spectrum disorders and intellectual disabilities with respect to gender, birth weight, birth cry and parents consanguineous marriage were statistically insignificant. The present study concluded that there is no correlation among social maturity, IQ and problem behaviour in children with autism spectrum disorders and intellectual disabilities.

### Limitations of the study

There are several methodological limitations with this study. Some of them are: The sample size for the present study was small. Therefore the results cannot be generalized. The sample was collected from few districts of Kashmir valley (Srinagar, Pulwama, Kupwara and Ganderbal) and not from all districts of Kashmir valley. Sex ratio of the sample was unequal. The age of onset

for autistic disorder is 3 years and research team of the present study has focused on the age range of 5 to 15 years only.

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