"A STUDY OF DIAGNOSIS OF PERSONS WITH AUTISM AMONG SPECIAL STUDENTS USING INDIAN SCALE FOR ASSESSMENT OF AUTISM (ISAA) ON THE BASIS OF GENDER"

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ABSRTACT

In this research paper diagnosis of Persons with Autism on the basis of gender was studied in Haryana. Autism is neuro development disorder associated with symptoms that include "persistent deficits in social communication and social interaction across multiple contexts and restricted, repetitive patterns of behavior, interests, or activities. In this paper Total 20 autism students is randomly selected in which 10 autism students was taken from Sirsa District and 5 autism students was taken from Rohtak and 5 autism students is taken from Bhiwani. Indian scale for assessment of Autism (ISAA) published by National Institute for Mentally Handicapped, authored by Dr.Smita Neelkanth Deshpande (2008)- was used. In this research paper, the topic was related to autistic students of three districts of Haryana state in which (1) It was found that among 20 autism students (50% students) were related to mild autism (40% students) were related to Moderate Autism (10% students) were belonging to severe autism in three districts of Haryana state. In this paper the other findings were (2) The Social Relationship and Reciprocity of Male autism students was better than Female Autism students (3) The Emotional Responsiveness of Female autism students was more than Male autism students (4) The Speech Language & Communication of Male autism students was more than Female autism students (5) The Behaviour Patterns of Male autism students was more than Female autism students (6) The Sensory Aspects of Female autism students was more than Male autism students (7) The Cognitive Development of Male autism students was more than Female autism students.

INTRODUCTION:-

Autism spectrum disorder is a condition related to brain development that impacts how a person perceives and socializes with others, causing problems in social interaction and communication. The disorder also includes limited and repetitive patterns of behavior. The term "spectrum" in autism spectrum disorder refers to the wide range of symptoms and severity.

Autism spectrum disorder includes conditions that were previously considered separate — autism, Asperger's syndrome, childhood disintegrative disorder and an unspecified form of pervasive developmental disorder. Some people still use the term "Asperger's syndrome," which is generally thought to be at the mild end of autism spectrum disorder.

Autism spectrum disorder begins in early childhood and eventually causes problems functioning in society — socially, in school and at work, for example. Often children show symptoms of autism within the first year. A small number of children appear to develop normally in the first year, and then go through a period of regression between 18 and 24 months of age when they develop autism symptoms.While there is no cure for autism spectrum disorder, intensive, early treatment can make a big difference in the lives of many children.

REVIEW OF RELATED LITERATURE:-

Eli T Newcomb (2018) -Treatment of severe problem behaviour in children with autism spectrum disorder and intellectual disabilities Children with autism spectrum disorder (ASD) and intellectual disabilities (ID) present with problem behaviour at rates disproportionately higher than their typically-developing peers. Problem behaviour, such as self-injury, aggression, pica, disruption, and elopement result in a diminished quality-of-life for the individual and family. Applied behaviour analysis has a well-established research base, detailing a number of assessment and treatment methods designed to address behaviour problems in children with ASD and ID. Although the variables that lead to the emergence of problem behaviour are not precisely known, those that are currently responsible for the maintenance of these problems can be identified via functional behaviour assessment, which is designed to identify events that occasion problem behaviour, consequences that maintain it, as well as other environmental factors that exert influence on the behaviour. Corresponding function-based treatment is implemented when environmental determinants are identified, with the aim of decreasing or eliminating problem behaviour, as well as teaching the individual to engage in more appropriate, alternative behaviour.

Hill et al (2020) conducted a randomized control trial that was completed to explore the impact of canine assisted occupational therapy on the on-task behaviours and goal attainment of autistic children when compared to occupational therapy sessions as usual. Thestudy included 22 cases and may not have had the numbers to engage in this level of scientific statistical analysis. The authors shared that the results showed that although there was a positive trend for on-task behaviour and goal attainment within the treatment group, results were not statistically significant. These results are promising and appear to support the need for further research in the area of canine assisted occupational therapy for autistic children.

Ayse Kilincaslan et al ((2019) :- Daily living skills in children with autism spectrum disorder and intellectual disability: A comparative study from Turkey. Results-The ASD group scored lower than the comparison group in the total DLS score, personal hygiene, dressing, safety and interpersonal skills, despite being comparable in the parent-reported quality of life. Regression analysis of the whole sample demonstrated that the child's age, intellectual level, speech level, autism symptom severity and the monthly household income were independent correlates of the total DLS. Exploratory analyses for each group revealed differential effects of these variables: in the ASD group; a higher speech level and monthly income, while in the ID group; an older age, a higher intellectual level and monthly income and a lower ABC score emerged as significant predictors of higher DLS.

Eli T Newcomb (2018)-Treatment of severe problem behaviour in children with autism spectrum disorder and intellectual disabilities Children with autism spectrum disorder (ASD) and intellectual disabilities (ID) present with problem behaviour at rates disproportionately higher than their typically-developing peers. Problem behaviour, such as self-injury, aggression, pica, disruption, and elopement result in a diminished quality-of-life for the individual and family. Applied behaviour analysis has a well-established research base, detailing a number of assessment and treatment methods designed to address behaviour problems in children with ASD and ID. Although the variables that lead to the emergence of problem behaviour are not precisely known, those that are currently responsible for the maintenance of these problems can be identified via functional behaviour assessment, which is designed to identify events that occasion problem behaviour, consequences that maintain it, as well as other environmental factors that exert influence on the behaviour. Corresponding function-based treatment is implemented when environmental determinants are identified, with the aim of decreasing or eliminating problem behaviour, as well as teaching the individual to engage in more appropriate, alternative behaviour.

JUSTIFICATION OF THE PROBLEM

From the above narrative it can be seen that all over the world there are various approaches to deal with problems among Disabled students. Autisim, in general, are identified in the categories of intellectual disabilities on the basis of gender. I visited various libraries like CDLU Sirsa, GJU S and T, Hisar, MDU Rohtak and KUK Kurukshetra and studied Ph.D thesis related to the above problem of Autisim, M.B Buch

Educational Surveys, National and International Journals, Shodh Ganga, Online through Internet and found that the above topic remained untouched and no any specific study was made in Haryana. So I decided to do research on the above said topic considering its importance in the field of special education. Relatively only few studies have pursued a specific or definite theoretical model. Coming to Indian context, there are not many studies on the same topic in Haryana. The investigator collected the information regarding special student's Autisim problems, so that they could resolve these problems. Therefore, the researcher decided to do research on the topic "A Study of diagnosis of Persons with Autism among special students using Indian scale for Assessment of Autism (ISAA) on the basis of gender" which remained untouched in Haryana State after consultation with my Supervisor Dr. Mamta Sharma, Associate Professor, Deptt. Of Education, SKDU, Hanumangarh and Co-supervisor Dr. Jai Parkash, Principal, Jan Nayak (P.G.) College of Education, Sirsa.

OPERATIONAL DEFINITIONS:-

1. **Autisim:** Autism Spectrum Disorder Student is neurodevelopment disorder associated with symptoms that include persistent deficits in social communication and social interaction across multiple contexts and restricted, repetitive patterns of behavior, interests, or activities.
2. **Intellectual Disabled Children:** Persons with intellectual disabilities refers those students who take longer time to learn to speak, walk, and take care of their personal needs such as dressing or eating Children. These children have some abnormal behavior when compared with normal children.

OBJECTIVES:-

1. To identify the persons with autism among special students using Indian scale for assessment of Autism (ISAA).
2. To study the Social Relationship and Reciprocity of Male & Female autism students.
3. To study the emotional responsiveness of Male & Female autism students.
4. To study the speech language & communications of Male & Female autism students.
5. To study the behavior patterns of Male & Female autism students.
6. To study the sensory aspects of Male & Female autism students.
7. To study the cognitive component of Male & Female autism students.

HYPOTHESES:-

1. How the persons with autism among special students will be identified using Indian scale for assessment of autism (ISAA).
2. There is no significant disparity among Male & Female autism students regarding Relationship & Reciprocity.
3. There is no significant difference among Male & Female autism students regarding emotional responsiveness.
4. There is no any difference between Male & Female autism students regarding speech language & communications.
5. There are no feminity variances between autism students regarding behaviors patterns.
6. There is no discernible gender difference between autism students regarding sensory aspects.
7. There is no gender specific difference between the mean scores of autism students regarding cognitive component.

TOOL USED IN THIS RESEARCH:-

Indian scale for assessment of Autism (ISAA) published by National Institute for Mentally Handicapped, An ISO9001:2000 Institution authored by Dr.Smita Neelkanth Deshpande (2008)- and published by National trust for the welfare of persons with autism, cerebral Paley, Mental retardations and multiple

disabilities, Department of empowerment of persons with Disabilities (Divyangan), Ministry of social justice and empowerment, govt. of India is used in which 40 items are selected and scoring is 5,4,3,2,1 and having range score from 40-200.

POPULATION:-

All the autism childern of Rohtak, Bhiwani & Sirsa District constitutes the population of the study.

SAMPLE:-

 Total 20 autism students is randomly selected in which 10 autism students was taken from Sirsa District and 5 autism students was taken from Rohtak and 5 autism students is taken from Bhiwani.

ANALYSIS & INTERPRETATION OF DATA:-

        H_1 – To identify the persons with Autism among special students using Indian scale for assessment of Autism (ISAA).

Interpretation: -   In this hypothesis total 20 autism students were identified and Indian scale for assessment of Autism was applied on them (ISAA) & it was found that 10 students were having score in between 70 to 106 which were showing Mild Autism & 8 autism students were getting the score in between 107 to 153 showing Moderate Autism & two students were having score more than 153 showing Severe Autism. Which is also shown in table & graph.

Tables 1.0

Sr. No.	No. of Autism Students	Score of Indian scale for Assessment for Autism	Level of Autism
1.	10	70 to 106	Mild Autism
2.	08	107 to 153	Moderate Autism
3.	02	715.3	Severe Autism

        H_2 – There is no significant disparity among Male & Female autism students regarding social relationship & reciprocity.

Tables 1.2

Mean S.D. & 't' test of Male & Female autism students regarding social relationship & reciprocity.
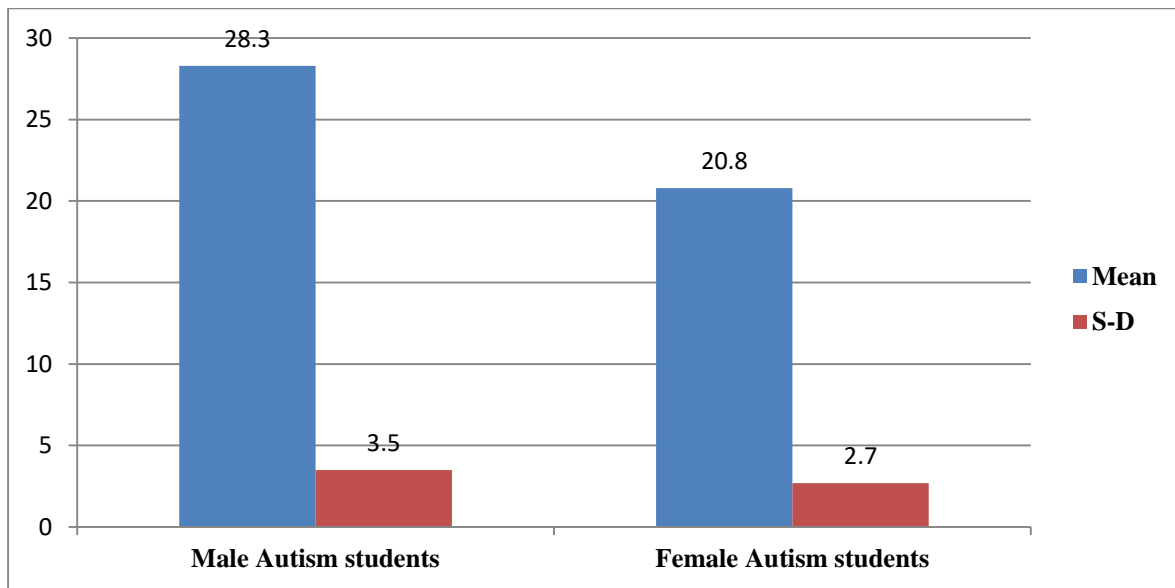
Sr. No.	Autism Students	N	Mean	S-D	df	't' test	Level of Significant
1.	Male Autism students	10	28.3	3.5	18	3.83	

2.	Female Autism students	10	20.8	2.7			Significant at 5% level of Significance

df=18, .05=2.10

Interpretation: -   In hypothesis No. 2, the mean & S.D. of Male & Female autism students is 28.3, 3.5 & 20.8, 2.7 respectively. The calculated 't' value is 3.83 which is more than standard table value at 5% level of significance, which is 2.10, therefore hypotheses No. 2 is rejected. It is concluded that the mean of Male Autism students is more than Female Autism students regarding social relationship & Reciprocity. It is finally staled that the social relationship & reciprocity of Male Autism students is more than Female Autism students.

Figure 1.2

H$_3$ – There is no significant difference among Male & Female autism students regarding emotional responsive men.
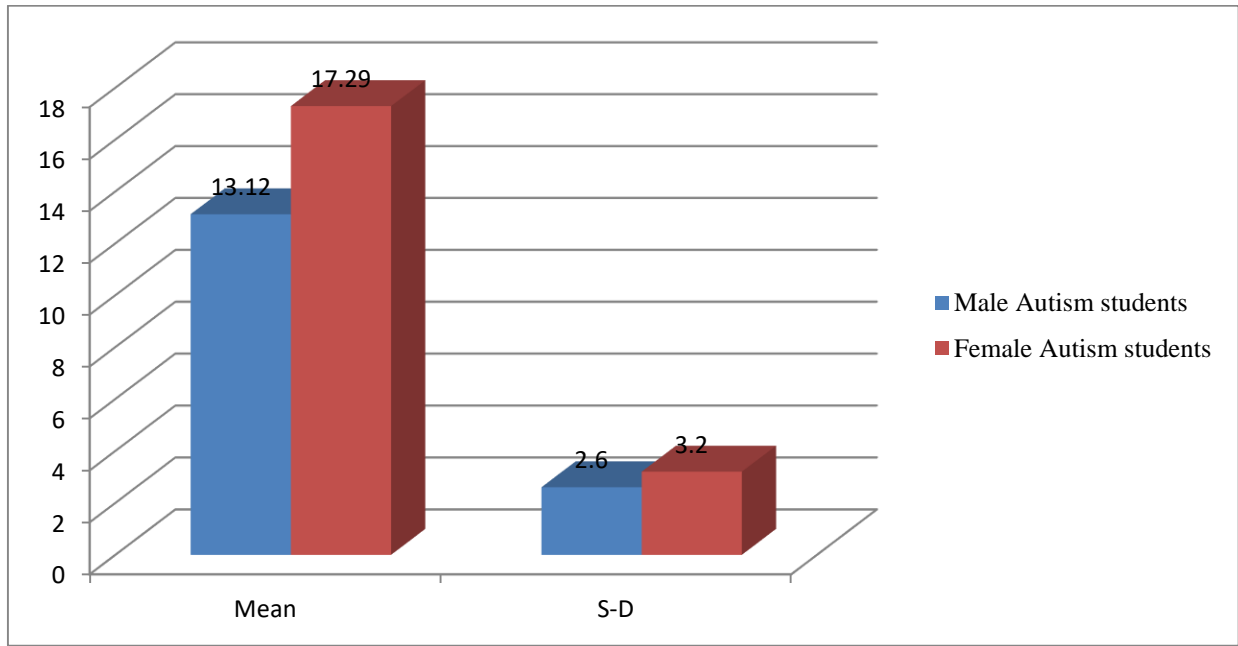
Table 1.3

Sr. No.	Autism students	N	Mean	S-D	df	't' test	Level of Significant
1.	Male Autism students	10	13.12	2.6	18	3.20	Significant at 5% level of Significant
2.	Female Autism students	10	17.29	3.2			

df = 18   .05 = 2.10

Interpretation: -   In hypothesis No. 3, the mean, S.D. of Male & Female autism students is 13.2, 2.6 & 17.29, 3.2 respectively regarding emotional responsiveness. The calculated 't' value is 3.20, which is more than standard table value at 5% level of significance, which is 2.10 therefore hypothesis No. 3 is rejected. Further it is analyzed that the mean of Female Autism students is more than Male Autism students regarding

emotional responsiveness. It is finally concluded that the emotional responsiveness of Female Autism students is more than Male Autism students regarding emotional responsiveness.

Figure 1.3

H$_4$ – There is no any difference between Male & Female autism students regarding speech language and communication.
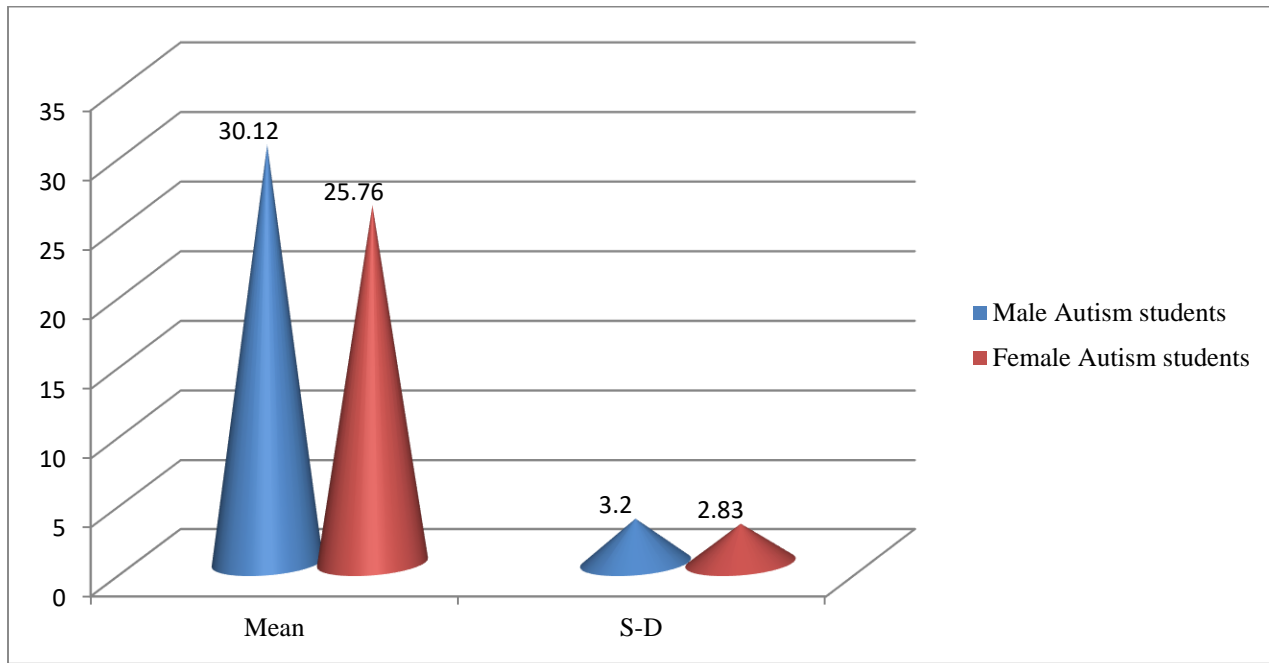
Table 1.4

Sr. No.	Autism students	N	Mean	S-D	df	't' test	Level of Significant
1.	Male Autism students	10	30.12	3.2	18	3.22	Significant at 5% level of Significance
2.	Female Autism students	10	25.76	2.83			

df = 18   .05 = 2.10

Interpretation: -   In hypothesis No. 4, the mean, S.D. of Male & Female autism students is 30.12, 3.2 & 25.76, 2.83 respectively regarding speech language & communication. The calculated value of 't' is 3.22, which is more than standard table value at 5% level of significance, which is 2.10 therefore hypothesis No. 4 is rejected. Further, it is analyzed that the mean of Male Autism students is more than Female Autism students regarding speech language & communication. It is finally concluded that the speech language & communication of Male Autism students is more than Female Autism students regarding speech language & communication.

Figure 1.4

H$_5$– There is no feminity variances between autism students regarding Behaviour patterns.
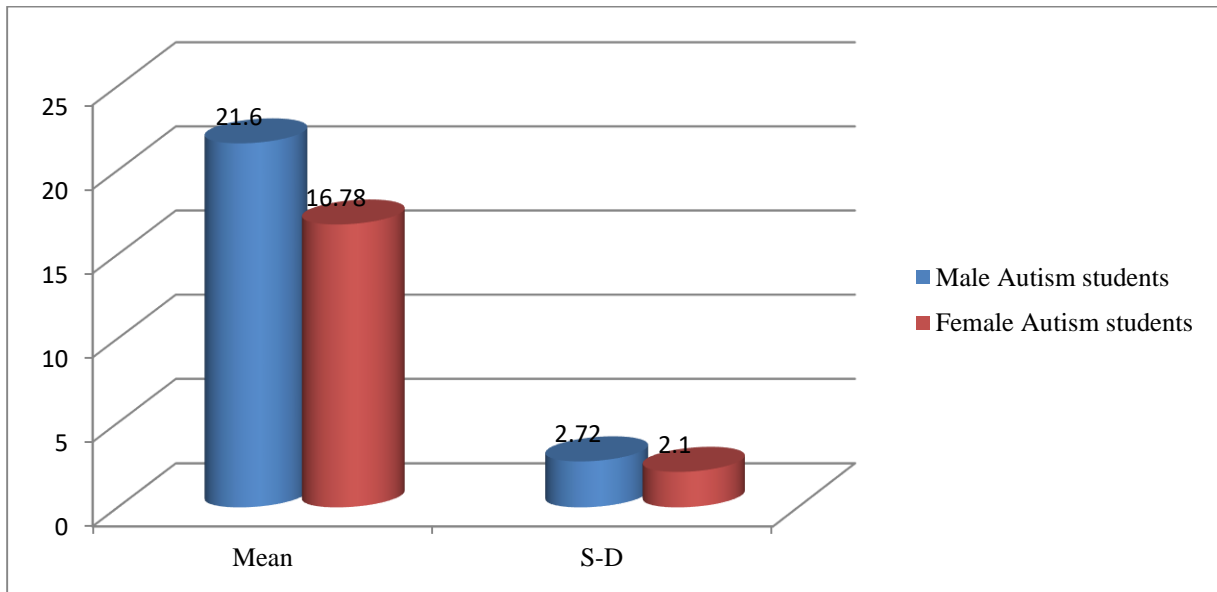
Table 1.5

Mean S.D. & 't' test of Male & Female autism students regarding Behaviour patterns.

Sr. No.	Autism students	N	Mean	S-D	df	't' test	Level of Significant
1.	Male Autism students	10	21.6	2.72	18	4.43	Significant at 5% level of Significance
2.	Female Autism students	10	16.78	2.10			

df = 18　　　　.05 = 2.10

Interpretation: - In hypothesis No. 5, the mean, S.D. of Male & Female autism students is 21.6, 3.2 & 2.72, 16.78, 2.10 respectively regarding Behaviour patterns. The calculated value of 't' is 4.43, which is more than standard table value at 5% level of significance, which is 2.10 therefore hypothesis No. 5 is rejected. Further, it is analyzed that the mean of Male Autism students is more than Female Autism students regarding Behaviour patterns. It is finally concluded that the Behaviour patterns of Male Autism students is more than Female Autism students regarding Behaviour patterns.

Figure 1.5

H_6– There is no discernible gender difference between autism students regarding Sensory Aspects.

Table 1.6

Mean S.D. & 't' test of Male & Female autism students regarding Sensory Aspects.
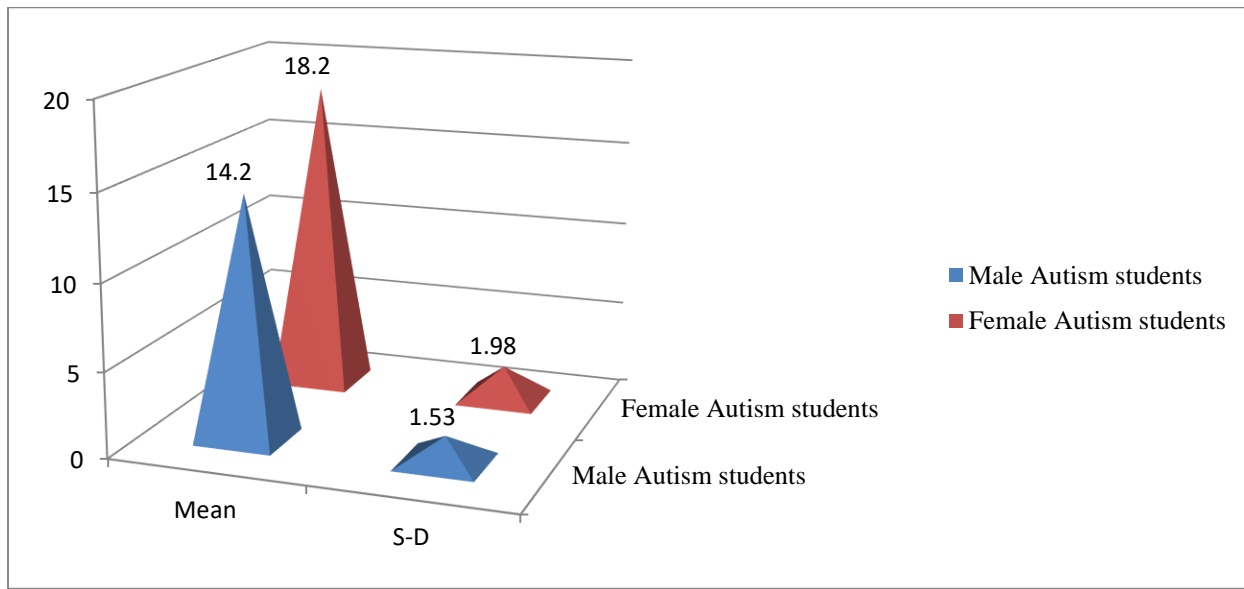
Sr. No.	Autism students	N	Mean	S-D	df	't' test	Level of Significant
1.	Male Autism students	10	14.20	1.53	18	5.05	Significant at 5% level of Significance
2.	Female Autism students	10	18.20	1.98			

df = 18   .05 = 2.10

Interpretation: -   In hypothesis No. 6, the mean, S.D. of Male & Female autism students is 14.20, 1.53 & 18.20, 1.98 respectively regarding Sensory Aspects. The calculated value of 't' is 5.05, which is more than standard table value at 5% level of significance, which is 2.10 therefore hypothesis No. 6 is rejected. Further, it is analyzed that the mean of Female Autism students is more than Male Autism students regarding Sensory Aspects. It is finally concluded that the Sensory Aspects of Female Autism students is more than Male Autism students regarding Sensory Aspects.

Figure 1.6

H$_7$– There is no gender specific difference between the mean scores of autism students regarding Cognitive Development.

Table 1.7

Mean S.D. & 't' test of Male & Female autism students regarding Cognitive Development.

Sr. No.	Autism students	N	Mean	S-D	df	't' test	Level of Significant
1.	Male Autism students	10	13.60	1.49	18	5.55	Significant at 5% level of Significance
2.	Female Autism students	10	10.21	1.23			

df = 18   .05 = 2.10

Interpretation: - In hypothesis No. 7, the mean, S.D. of Male & Female autism students is 13.6, 1.49 & 10.21, 1.23 respectively regarding Cognitive Development. The calculated value of 't' is 5.55, which is more than standard table value at 5% level of significance, which is 2.10 therefore hypothesis No.7 is rejected. Further, it is analyzed that the mean of Male Autism students is more than Female Autism students regarding Cognitive Development. It is finally concluded that the Cognitive Development of Male Autism students is more than Female Autism students regarding Cognitive Development.

Figure 1.7
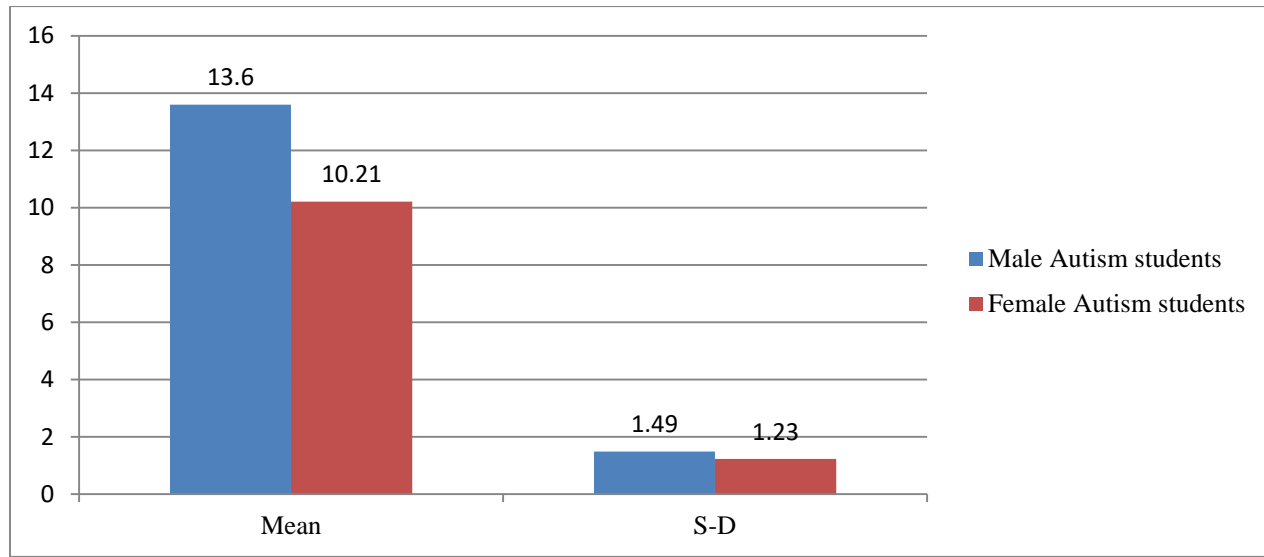
FINDINGS/RESULTS:-

1. In hypothesis No. 01 The Indian scale for assessment of autism was applied on 20 autism students in which 't' was found that 10 autism students (50%) were having mild autism & 8 autism students (40%) were showing moderate autism & Two autism students (10%) were showing severe autism among 20 selected autism students.

2. In hypothesis No. 02 The Social Relationship & Reciprocity of Male autism students is more than Female autism students, because the calculated value of 't' is 3.83, which is more than standard tale value at 5% level of significance. It is concluded that the social relationship & reciprocity of Male Autism students is more than Female Autism students.

3. In hypothesis No. 03 The Emotional Responsiveness of Female autism students is more than Male autism students, because the calculated value of 't' is 3.20, which is more than standard tale value at 5% level of significance. It is concluded that the emotional responsiveness of Female Autism students is more than Male Autism students.

4. In hypothesis No. 04 The Speech Language & Communication of Male autism students is more than Female autism students, because the calculated value of 't' is 3.22, which is more than standard tale value at 5% level of significance. It is concluded that the Speech Language & Communication of Male Autism students is more than Female Autism students.

5. In hypothesis No. 05 The Behaviour Patterns of Male autism students is more than Female autism students, because the calculated value of 't' is 4.43, which is more than standard tale value at 5% level of significance. It is concluded that the behaviour Patterns of Male Autism students is more than Female Autism students.

6. In <u>Hypothesis No. 06</u> The Sensory Aspects of Female autism students is more than Male autism students, because the calculated value of 't' is 5.05, which is more than standard tale value at 5% level of significance. It is concluded that the Sensory Aspects of Female Autism students is more than Male Autism students.

7. In <u>hypothesis No. 07</u> The Cognitive Development of Male autism students is more than Female autism students, because the calculated value of 't' is 5.55, which is more than standard tale value at 5% level of significance. It is concluded that the Cognitive Development of Male Autism students is more than Female Autism students.

<u>EDUCATIONAL IMPLICATIONS:-</u>

In this research paper, the topic was related to autistic students of three districts of Haryana state in which (1) It was found that among 20 autism students (50% students) were related to mild autism (40% students) were related to Moderate Autism (10% students) were belonging to severe autism in three districts of Haryana state. In this paper the other findings were (2) The Social Relationship and Reciprocity of Male autism students was better than Female Autism students (3) The Emotional Responsiveness of Female autism students is more than Male autism students (4) The Speech Language & Communication of Male autism students is more than Female autism students (5) The Behaviour Patterns of Male autism students is more than Female autism students (6) The Sensory Aspects of Female autism students is more than Male autism students (7) The Cognitive Development of Male autism students is more than Female autism students.

<u>SUGGESTIONS FOR FURTHER RESEARCH:-</u>

1. In this study a sample of 20 autism students were randomly selected from three districts.
2. The study is delimited to Haryana State only.
3. In this study, Mean, S.D &'t' test was delimited.
4. In this study seven objectives & seven hypotheses and one assessment tool was delimited.

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