



KNOWLEDGE AND ATTITUDE OF AUTISM AMONG TEACHERS OF PUNJAB, PAKISTAN. AN AWARENESS SURVEY

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Abstract

The current study was conducted in Punjab, Pakistan to assess the knowledge and insight about Autism Spectrum Disorder (ASD) among teachers of schools and colleges. This prevalence study was conducted with the help of a simple random sampling technique, among 146 teachers from both schools and colleges. The designed questionnaire was having all the necessary questions related to knowledge and insight about disorder. Gathered data was scrutinized by using SPSS (version 22). The stats of present study reveal that 17.6% (39) school and 23.8% 25 college teachers know about autism. And out of 146 teachers only 1.4% (3) school teachers and 0% (0) teacher from college sector knows about the diagnosis which is quite alarming situation. Paired samples T-Test for knowledge and insight among both type of teachers is significant. The overall conclusion gets from this study disclosed that the teachers either they are from school or college lack awareness about the autism spectrum disorder (ASD), although school teachers were better aware about autism in contrast to college teachers. The higher education authorities have to arrange seminars and also awareness campaigns for proper apprehension, and drilling of teachers about this disorder and other common disease should be done for a healthy and peaceful society.

Key words: Autism, Knowledge, Attitude, Survey, Insight

INTRODUCTION

Autism Spectrum Disorder (ASD) is a neurodevelopment disorder characterized by impaired communication both verbal and nonverbal, impaired social interface, repetitive and restricted behavioural pattern [1]. It is a life prevailing disease that starts from birth or in later age of 2-3 years. The person having this disease usually seems to be ordinary in looking. Nowadays autism is considered as a spectrum disorder which can vary from severe to mild. Although families, teachers, and direct providers make the most differences to the lives of people with ASD, physicians and other

clinicians also affect individuals and families by providing information about the current functioning of the person with ASD, by helping caregivers to anticipate transitions, and by navigating referrals to service providers and specialists when needed [2].

Causes of autism are still unknown [3]. Variety of studies performed suggested solid genetic basis, however cannot be drawn at Mendelian mutation (Single gene) or abnormality of single chromosome [4,5]. Drug use during pregnancy is also identified as one of the risk factors, such as a study showed that during pregnancy use of valproic acid led to autism in neonates [6].

Depending upon the locality the autistic person's verbal skills alter from nonverbal to fluent in speech not only communication skills but also mental abnormality varies from mental adjuvment to sharp intellectuality. The persons suffering from autism sometimes show extraordinary performance in certain skills like mathematical calculations, problem solving and interpretations. To diagnosed this problem many amendments have been made in the field of science and different devices have been developed the complete details about these screening devices are given in the Nelson Textbook of Pediatrics by Kliegman [7].

Country report of Pakistan on autism revealed prevalence of this spectrum disorder as 1 autistic child out of 120 children [8]. Pakistan ranks 113th among 120 countries regarding literacy rate, which is projected to reach 60 percent till 2015 from the existing 55 percent [9]. Despite of this rate of literacy in Pakistan the general public and even the educated communities still lack of knowledge regarding autism its severity and diagnostic parameters.

Therefore, current study was performed at Punjab province of Pakistan among the teachers' community the purpose of which is to get an estimate about teachers' knowledge regarding autism and also their insight for future. The teacher is the only person who is in close contact with a child when he/she is in the learning and guiding phase of their life. And if teachers know that their students are suffering from any mental abnormality, they will definitely guide them according to the need. Teachers are the administrators of society and their knowledge about any problem in the population helps pupil to be adequate and handle their aptitude for the jurisdiction of the ambience.

Materials and Methods

Data Collection Tool

This was a comparative study performed among the teachers of schools and colleges through simple random sampling (SRS) technique. A questionnaire was designed that contains all the questions related to Autism Spectrum Disorder (ASD) such as knowledge, sign and symptoms, diagnosis and treatment. Teachers from both schools and colleges were selected and in equal ratio.

Data Analysis

For the analysis of data, the SPSS (Statistical Package for the Social Sciences Version 22) was used. Putting it into a clear language frequencies and percentages were calculated for both school and college teachers. Moreover, the Chi-Square test was applied to compare the knowledge and insight of both type of teachers that is school and college and also Paired-Samples T-Test was performed. *P* value of less than 0.05% was considered as significant value.

Results and Discussion

The data was gathered from teachers of schools and colleges total 146 questionnaires were distributed among the respondents and evaluated. We selected the subjects of both the genders from school, the participants were existing to different age groups and having contrasting educational portfolios as shown in the figure 1,2 and 3 respectively.

Same with case of college the respondents of both genders having different age groups and contrasting educational backgrounds were considered as shown in the figure 4,5 and 6 respectively.

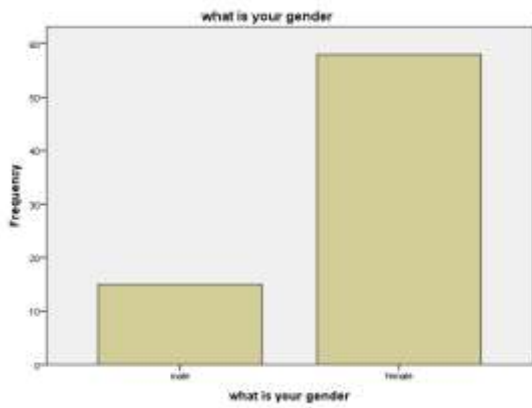


Figure 1. Gender of school teachers

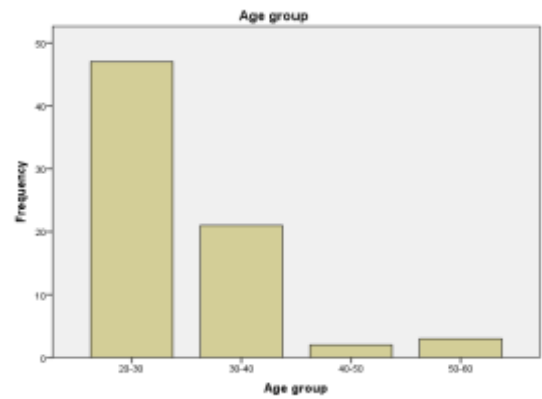


Figure 2. Age group of school teachers

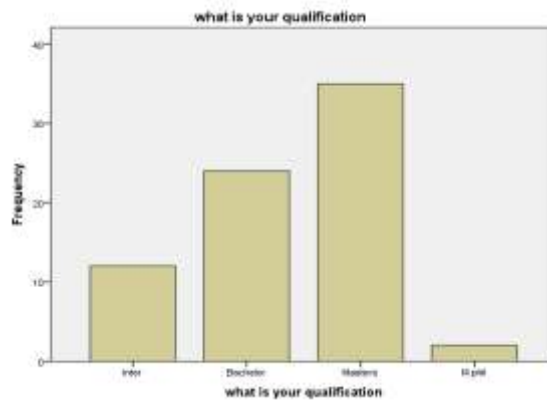


Figure 3. Qualification of school teachers

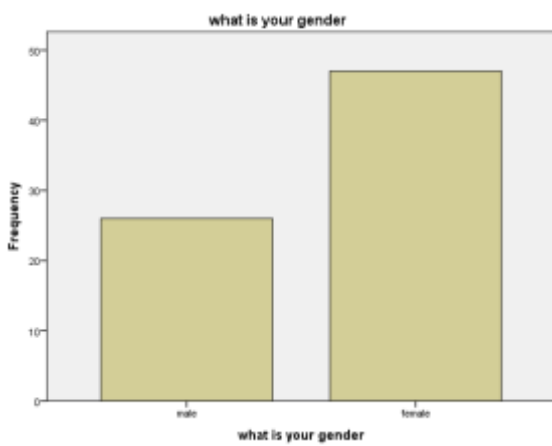


Figure 4. Gender of college teachers

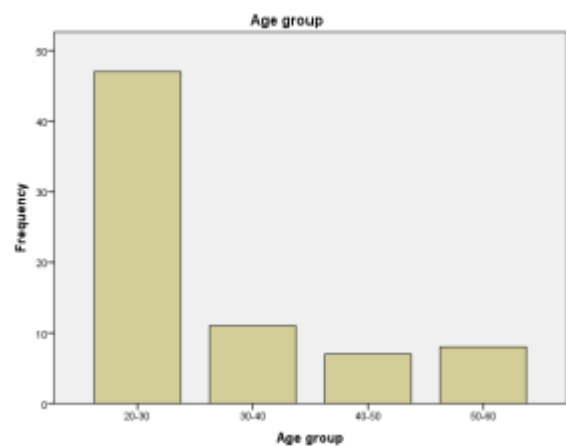


Figure 5. Age group of school teachers

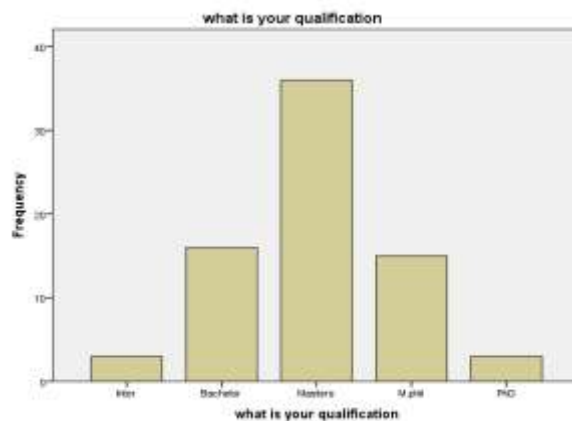


Figure 6. Qualification of college teachers

The designed questionnaire contains total 14 questions regarding knowledge about autism as shown in the (table 1). The figures we get from the collected data shows that only 17.6% school and 23.8% college teachers know about autism. Only single question out of the knowledge portion about diagnosis of autism, have statistical significance in negative exponential (5.9886E-15) between the school and college responses and college teachers are 0% aware about the diagnostic parameters of the ailment. According to 16 school and 9 college teachers autistics persons have oral language delays. 17 school and 3 college respondents believed that people with autism have hyper activity to sensory input or unusual interests in sensory aspects of the environment. 3.6% school and 1.9% college subjects think that autism is more common among girls than boys. All the questions contain statistical significance between the responses gathered from school and college teachers.

Table 1. Knowledge about Autism

Questions	School Teachers		College Teachers		Total		P-Value
	N	Percent	N	Percent	N	Percent	
Do you know about autism?	39	17.6%	25	23.8%	64	20.7%	0.000005
People with Autism spectrum disorder have oral language delays?	16	7.2%	9	8.6%	25	15.8%	0.000257
Understanding of oral language is not impaired in people with autism?	12	5.4%	3	2.9%	15	4.15%	0.000103
People with autism have difficulty in communicating?	24	10.8%	9	8.6%	33	9.7%	0.000148
People with autism have difficulties is social relations?	17	7.7%	11	10.5%	28	9.1%	0.000093
People with autism avoid eye contact?	18	8.1%	11	10.5%	28	9.3%	0.001013
People with autism have intellectual disability?	7	3.2%	4	3.8%	11	3.5%	0.001903
How is autism Diagnosed?	3	1.4%	0	0%	3	0.7%	5.9886E-15
People with autism have behavioural problems (throwing objects, aggression towards others, yelling)?	12	5.4%	4	3.8%	16	4.6%	0.002561
Current Number of children with autism?	21	9.5%	7	6.7%	28	8.1%	0.000227
The symptoms of autism are varying different from one person to another?	16	7.2%	10	9.5%	26	8.35%	0.000290
People with autism have hyper activity to sensory input or unusual interests in sensory aspects of the environment?	17	7.7%	3	2.9%	20	5.3%	0.000274
People with autism are usually interested in details?	12	5.4%	7	6.7%	19	6.05%	0.001118
Autism is more common among girls than boys?	8	3.6%	2	1.9%	10	2.75%	0.000009

The 3 questions are designed related to respondents’ insight about autism for future challenges as shown in the table 2. According to 41 school and 16 college teachers’ perception managing a child with autism comes with prior training. One out of 3 questions in insight portion have better results for college teachers as 50% from survey suggest that the autistic child should be taught in special schools. And overall 2.25% percent of responses from both school and college teachers advised that autism is not treatable using medication alone.

Questions	School Teachers		College Teachers		Total		P Value
	N	Percentage	N	Percentage	N	Per	
Managing a child with autism comes with prior training	41	64.1%	16	47.1%	57	55.6%	0.000012
Autistic child should be taught in special school?	22	34.4%	17	50.0%	39	42.2%	0.000084
Autism is not treatable using medication?	1	1.6%	1	2.9%	2	2.25%	0.000033

In figure 7 Paired Samples T-test was performed between the type of teacher, knowledge insight with significant results.

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Typeofteacher - KNOWLEDGE	-39.92466	12.10021	1.00142	-41.90392	-37.94539	-39.868	145	.000
Pair 2	Typeofteacher - INSIGHT	-8.75342	3.36833	.27877	-9.30439	-8.20246	-31.401	145	.000

Figure 7. Paired samples T-test between teachers’ knowledge and insight

This correlative study performed suggested that the school teachers were better aware about autism as compared to college ones. Currently autism is being diagnosed 1/150 children [10]. A sharp pervasiveness of autism throughout the world and among different communities, public should be conscious which will be helpful in the treatment of the disorder at its prior age. Some studies revealed low level of awareness about this disease in previous researches such as organized at Singapore [11] and Karachi [12]. For the induction of therapy the diagnosis of autism is very fruitful at early age not only helps in diagnosis but also aids the sufferers in the development of their intellectuality. Students used to be in friendly contact with their teachers therefore teachers play a productive role at their early stage of life. Teachers’ ability to identify autistic, at early age; result in advantages on long term as Autism management include medication accompanied by cognitive and behavioural therapies [13].

Conclusions

The conclusion we get from our recent study suggests that the college teachers lack attention about autism and also insights about it in Punjab, Pakistan. Coping with the disorder of autism comes with proper guide and obvious it’s very favorable. Teacher and student affiliation begin at very early age. Therefore, there must be convenient programs such as seminars and workshops for the teachers on autism awareness, administration and diagnosis.

Conflict of interest

Authors have no conflict of interest to declare

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