



UNDERSTANDING AUTISM SPECTRUM DISORDER: A SURVEY STUDY AMONG REHABILITATION PROFESSIONALS

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ABSTRACT

Rehabilitation professionals play a pivotal role in rehabilitation of individuals with Autism Spectrum Disorder (henceforth ASD). As they are the direct service providers, they must possess a high knowledge of different aspects of ASD. Present study employed survey method to find out the awareness about Autism Spectrum Disorder (ASD) among rehabilitation. 100 special educators and 50 therapists who are working with the children with ASD were selected through purposive sampling method. Researchers developed a five point awareness rating scale consisting of six different domains for collecting the data. Collected data was analyzed using both qualitative and quantitative methods. Independent t test and one way ANOVA were used to test hypotheses. Result of the study indicated that most of the professionals' possess average to high level of understanding of ASD (Special Educators 64% avg. and 20% high, Therapists 68% avg. and 18% high). It also reveals that special educators and therapists do not differ in general awareness level about CWASD. Among special educators gender and qualification have influence in general awareness. On the contrary, experience plays significant role in general awareness among therapists. It was also found out that therapists are more aware about the existing assessment tools for CWASD. In the awareness on existing assessment tools, significant difference between special educators and therapists was found and.

KEYWORDS : Rehabilitation Professionals, Autism Spectrum Disorder, Special Educators, Therapists

INTRODUCTION

Rehabilitation professionals play a critical role in rehabilitation of individuals with Autism Spectrum Disorder (henceforth ASD). Special educators are the qualified personnel who are responsible for educational and functional assessment, providing appropriate and effective training either in group or individualized or both to the children with individuals with ASD. Apart from this, record maintaining, evaluation of the training programs, monitoring the progress of the children, communicating with the parents, counseling are often done by the special educators. Therapists are another group of rehabilitation professionals who are qualified and trained personnel in different therapeutic interventional fields like occupational therapy, physiotherapy, speech therapy. They facilitate rehabilitation of the children with special needs by assessment, planning and administering medically prescribed therapy. Special educators, and therapists, being direct service provider are required to be well trained and also expected to have sound and updated knowledge of ASD to provide necessitate services. Better understanding leads to better assessment and thus most appropriate services/ interventions are provided to the children with special needs.

Autism Spectrum Disorder (henceforth ASD), the neuro developmental disorder is characterized by impairments in social interaction, impairments in communication, restricted and repetitive behavior. The prevalence rate of ASD is increasing rapidly. Autism is currently diagnosed in approximately 1 out of every 59 children (Center for Disease Control, 2018). There is a scarcity of special educators specialized in ASD, though experience in handling children with autism plays crucial role in providing service. This present study is an attempt to throw light on the level of understanding about ASD among rehabilitation professionals. It will also indicate the quality of the services provided for CWASD.

Statement of the problem

Present study is titled as "UNDERSTANDING AUTISM SPECTRUM DISORDER: A SURVEY STUDY AMONG REHABILITATION PROFESSIONALS".

OBJECTIVE OF THE STUDY: To find out the general awareness level about CWASD among the target groups.

Hypotheses

- There will be no significant difference between special educators and therapists in their general awareness level about CWASD.
- There will be no significant difference among special educators in their awareness level about CWASD with respect to gender, age, qualification and experience.
- There will be no significant difference among therapists in their awareness level about CWASD with respect to gender, age, qualification and experience.
- There will be no significant difference between special educators and therapists in their awareness level about CWASD with respect to Domain 1, Domain 2, Domain 3, Domain 4, Domain 5 and Domain 6.

METHODOLOGY

Survey method under the descriptive research design has been employed for data collection for this present study. Following independent variables were examined in the present study - age, gender, qualification and experiences. The researchers selected two groups of sample consisting of Special educators (100) and Therapists (50), who are working for children with ASD using non probability sampling technique from in and around Coimbatore district.

Development of Tools

To find out the general awareness level about CWASD among the target groups, a 5 point rating scale was formed. The rating scale consists of six domains- Basic information, Academic information, Assessment methods, Available assessment tools, Intervention for CWASD, and Technological support for CWASD. No of items varied from domain to domain.

TABLE no. 1 Description of the rating scale

Sl. No.	Name of the domain	No of items
1.	Basic information	10
2.	Academic information	5
3.	Assessment methods	6
4.	Available assessment tools	7
5.	Intervention for CWASD	5
6.	Technological support for CWASD	5
	total	

Reliability and Validation of tool

The tool was sent to 10 experts and their opinions were taken in to consideration while establishing the validity of the respective tool. Suggestions and modifications were incorporated in the final tool. Reliability of the tool was tested by using Test retest method and Karl Pearsons' Product Moment correlation coefficient value (r-value) was found out as .953 which is highly significant at .05 levels. Translation of the tool

The tool was developed in English and it was further translated into regional language (Tamil) by considering the convenience of the respondents.

Pilot study

A pilot study was conducted to check the relevance and appropriateness of the tool. The observation revealed that the samples did not face any difficulty while responding.

Data analysis

Data collected were analyzed both qualitatively and qualitatively. The responses on data collected were tallied and tabulated. In order to answer the research questions of the present study, several descriptive and inferential statistical techniques were used with assistance of SPSS program.

RESULT AND DISCUSSION:

TABLE no. 2
Distribution of awareness score

Sl.no	Group scores	Level of awareness
1.	above 176	High level of awareness
2.	122 – 176	Average level of awareness
3.	below 122	Low level of awareness

The researcher applied the normal distribution property to categorize the total awareness scores. The scores were categorized into three categories i.e. 'High level of awareness', 'Average level of awareness' and 'Low level of Awareness'. The mean of total awareness score is 149 and SD is 27. The scores which were FOUND TO BE within the range of Mean + SD (149 + 27) i.e. 122 – 176 are categorized as average scores. The individual's score above 176 was considered as High level of awareness and scores below 122 considered as a low level of awareness.

TABLE 4
Analysis of awareness score among target groups

Score group	Level of awareness	Special educators (n=100)		Para-professionals (n=50)	
		Number (n)	Percentage (%)	Number (n)	Percentage (%)
More than 176	High	20	20	9	18
122 - 176	Average	64	64	34	68
Less than 122	Low	16	16	7	14

The classification of the samples based on the total awareness score of the target groups reveals that large no of samples have more awareness level (Special Educators 64% avg. and 20% high, Therapists 68% avg. and 18% high). It also reveals that maximum no. of samples have average to high awareness level. It also ensures the quality of the services provided by the rehabilitation professionals. The result of the study of Gautam and Chandra (2015) also revealed that special educators are having medium and high level of awareness.

Hypotheses1: There will be no significant difference between special educators and therapists in their awareness about CWASD.

Independent t test was used to analyze the collected data. From the

above table it is found that, the t-value in awareness is (-.327) and this value is not significant at (P= 0.744) which is more than (0.05) level of significance. Therefore the null hypothesis is accepted. It is inferred as there is no difference between the target groups on understanding ASD.

Hypotheses2: There will be no significant difference among special educators in their awareness about CWASD with respect to gender, age, qualification and experience.

Table No. 5
Comparison of awareness among special educators based on the background variables

	Variables	N	Mean	Sig	Calculated value
Gender	M	77	143.95	.003	't' = 2.996*
	F	23	163.26		
Age	A1	20	146.95	.856	F = .156
	A2	48	147.46		
	A3	32	150.69		
Qualification	D	29	144.00	.016	F = 4.313*
	B	60	146.37		
	M	11	171.00		
Experience	E1	10	138.00	.416	F = .886
	E2	46	148.04		
	E3	44	151.11		

* Significant at 0.05 level

Independent t test, one way ANOVA and Post hoc test were used to test the hypothesis. From the above table it is found that, there is significant difference among special educators in their awareness about CWASD with respect to gender. It is also inferred that male special educators are more aware than the female special educators. The findings are supported by the study of Gautam and Chandra (2015). With respect to age, no significant difference was found among special educators in their awareness about CWASD. Significant difference in awareness level was found among special educators with respect to their qualification. Again the result is correlated with the study of Gautam and Chandra (2015). Further post hoc analysis indicated that there is no significant difference between diploma groups and Bachelors group. Though there is significant difference between diploma and masters group and bachelors and masters group. It is also inferred that masters' degree holders have highest awareness level than other two groups. No significant difference was found among special educators in their awareness about CWASD with respect to experience.

Hypotheses 3: There will be no significant difference among therapists in their awareness about CWASD with respect to gender, age, qualification and experience.

TABLE No. 7
Comparison of awareness among therapists based on the background variables

	Variables	N	Mean	Sig	Calculated value
Gender	M	18	151.69	.524	.641
	F	32	146.83		
Age	A1	30	143.97	.120	2.221
	A2	18	158.22		
	A3	2	165.00		
Qualification	D	3	179.67	.059	3.013
	B	42	149.48		
	M	5	136.00		
Experience	E1	25	140.24	.004	F = 6.155*
	E2	20	155.25		
	E3	5	177.20		

Independent t test, one way ANOVA and Post hoc test were used to analyze the collected data. From the above table it is found that, there is no significant difference among therapists in their awareness about

CWASD with respect to gender, age and qualification. However significant difference was found among therapists with respect to experience. Post-hoc analysis showed that the significant difference was found between below 5 yrs experience group and more than 10 yrs experience group.

Hypotheses 4: There will be no significant difference between special educators and therapists in their awareness about CWASD with respect to Domain 1, Domain 2, Domain 3, Domain 4, Domain 5 and Domain 6.

TABLE no. 8 Overall comparison of mean scores of domain 1 – 6 between the target groups

Domain		Groups	Mean	SD	Sig	calculated 't' value
Domain 1	Basic information	SE	41.90	7.705	.801	.252
		T	41.58	6.475		
Domain 2	Academic performance	SE	21.45	3.614	.854	1.019
		T	20.80	3.823		
Domain 3	Assessment procedure	SE	25.88	4.028	.267	1.115
		T	25.04	4.936		
Domain 4	Existing assessment tools	SE	22.54	7.797	.044	2.034*
		T	25.16	6.647		
Domain 5	Intervention for CWASD	SE	19.54	5.342	.814	.235
		T	19.34	3.900		
Domain 6	Technological support for CWASD	SE	17.08	5.386	.294	1.053
		T	18.02	4.658		

SE- Special Educators, T- Therapists

Independent t test was used to test the hypothesis. From the above table it is found that, except domain 4 (Existing assessment tools) no significant differences was found among the target groups. In Domain 4, the t-value in awareness is (-2.034) and this value is significant at (P= .044) which is less than (0.05) level of significance. Therefore the null hypothesis is rejected. It shows that there is a significant difference between the groups on awareness about the existing assessment tools for CWASD. From the mean difference it was also inferred that therapists have better knowledge about the existing assessment tools for CWASD. Though no significant difference was found among target groups in academic procedure, mean difference indicates that special educators are having better knowledge in this area. The finding goes with their nature of jobs. Significant difference was not found in the area of technological support for ASD, however by observing mean score it can be assumed that therapists are more aware than special educators. The study of Dey P. and Sudha A. (2017) found out that though special educators have enough awareness about assistive technology for children with special needs, they lack of in-depth knowledge of it.

CONCLUSION

The present study makes an attempt to reveal the understanding about ASD among rehabilitation professionals. Findings of the present study show that maximum number of samples has average to high awareness levels. This plays a significant role in ensuring that need oriented and appropriate services are provided by the rehabilitation professionals. While gender and qualification play a significant role in understanding of ASD among special educators, experience has a major impact in awareness among therapists. In the awareness on existing assessment tools, significant difference between special educators and therapists was found and it was also found out that therapists are more aware about the existing assessment tools for CWASD.

REFERENCES

1. Adamson, A., O’Hare, A., & Graham, C. (2006). Impairments in sensory modulation in children with Autistic Spectrum Disorder. *British Journal of Occupational therapy*, 69 (8), 357- 367
2. Barua, M. (2009). *DSE (ASD) Manual*. Therapeutics. RCI, Kanishka Publishers. New Delhi. P.83.

3. Dey, P. & Sudha A. (2017). Awareness about assistive technology in educating children with special needs among special educators. *Journal of Disability Management and Special Education*.7 (1).
4. Gautam P.K. and Chandra S. (2015). Status of Awareness about Government Schemes among Special Educators of Persons with Intellectual Disability in Uttar Pradesh. Unpublished M. Ed Dissertation submitted to RKMVU-FDMSE.
5. Gowri, H., (2010). *Therapeutics Options for ASDs*, Published by Kanishka Publishers, New Delhi.
6. Kumari, B., (2012). *Teaching Children with Autism*, Somali Publications, New Delhi.
7. Petkovska, A. (2014). The role of special educator and rehabilitator with a child with a rare disease. [retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/24802199>]
8. Powell, Stuart and Jordan, Rita, (1995). *Understanding and teaching Children with Autism*, UNESCO.
9. <https://www.autismspeaks.org/science-news/cdc-increases-estimate-autisms-prevalence-15-percent-1-59-children>