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Research Article

Medical social workers' and clinical psychologists' understanding of autism spectrum disorders: A Nigerian Study

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Abstract

Introduction: Autism is a neurodevelopmental disorder characterised by difficulties in social communication and interaction, repetitive patterns of behaviour and focused interests and activities. Medical social workers and Clinical psychologists play vital roles in identifying and supporting autistic children with their families. They may help with therapy, rehabilitation, crisis interventions and outreach services. Adequate knowledge about Autism Spectrum Disorders (ASD) among Medical social workers and Clinical psychologists may enhance early recognition, diagnosis, appropriate referral and interventions that are known to improve prognosis in autistic children. This study determined Medical social workers' and Clinical psychologists' understanding of ASD.

Materials and methods: Socio-demographic and Knowledge About Childhood Autism among Health Workers (KCAHW) questionnaires were administered to consenting 63 Medical social workers and 35 Clinical psychologists.

Results: Sixty-three Medical Social workers and 35 Clinical psychologists participated in the study. The mean age of Medical social workers was 42.1 ± 8.6 years and 41.0 ± 8.9 years for Clinical psychologists (P = 0.525). Clinical psychologists who were males were 42.9% and 41.3% were male Medical social workers (P = 0.879). Medical social workers who have ever managed a child with autism in the course of their career were 42.9% while Clinical psychologists were 40.0% (P = 0.784). The mean knowledge score for variables in domain 1 for Clinical psychologists was 6.34 ± 1.78 while Medical social workers scored 5.40 ± 2.30 (P = 0.038). The score in domain 2 for Clinical psychologists was 0.91 ± 0.28 while Medical social workers scored 0.71 ± 0.46 (P = 0.009). The mean total score for Clinical psychologists was13.00 ± 2.86 whereas Medical social workers scored 11.51 ± 3.43 (P = 0.031).

Conclusion: Clinical psychologists significantly scored higher than Medical social workers in knowledge mean scores in domains 1 and 2 and total mean scores. The scores of Clinical Psychologists though higher than scores by Medical social workers are still considered inadequate. It is recommended that the training curriculum of Medical social workers and Clinical psychologists should involve more tutorials, teachings and clinical rotations that would expose them to different aspects of ASD.

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Introduction

Autism is a neurodevelopmental disorder characterised by difficulties and differences in social communication and interaction, repetitive patterns of behaviour, and focused interests and activities [1]. The global prevalence varies from 30 in 10,000 to 116 in 10,000 of the population [2]. Early identification and diagnosis of autism are important for interventions that may improve prognosis and quality of life [3]. However, recognition and diagnosis of autism predominantly rely on the knowledge of involved healthcare professionals [4].

Medical social workers and Clinical psychologists play vital roles in identifying and supporting autistic children with their families. They may help with therapy, rehabilitation, crisis interventions and outreach services. In essence, Medical social workers and Clinical psychologists are important members of multidisciplinary healthcare teams that manage autistic children. Social workers may come in contact with autistic children at schools, daycare setting, child welfare clinics, social service organizations, hospitals and mental health facilities [5]. Among the several professionals that make up the multidisciplinary team who work with autistic children, social workers have in recent times been involved in the areas of case management, community interaction and social skills training [6]. Social workers perception of Autism Spectrum Disorders (ASD) significantly determines how they assess the needs of autistic children and their families, and the types of services or interventions they eventually provide to meet those needs [7].

A study that was carried out among all social workers working with disabled children in an English local authority revealed that many workers had a good understanding of some aspects of ASD, there was also confusion about some key facts concerning ASD, the characteristics of the condition and scientific terminology, an inaccurate understanding of intervention approaches and a more positive attitude towards the ability of generic services to meet need than was supported by the literature [7].

A more recent exploratory study surveyed licensed 793 social workers to assess their understanding and attitudes about autism. It was reported that social workers had accurate knowledge and held strengths-based attitudes about autism and persons on the autism spectrum. Factors that predicted accurate knowledge about autism were having special training in autism, having present clinical involvement with autism and knowing someone on the autism spectrum [8].

A study aimed at understanding parents' and professionals' knowledge and awareness of autism in Nepal showed that parents of typically developing children and professionals had little explicit awareness of autism [9].

One hundred and eleven professionals with the Center for Autism Related Disabilities, (CARD), specialists (psychiatry, speech and language pathology and clinical psychology) and primary health care providers (family practice, paediatrics and neurology) completed a questionnaire that assessed knowledge of diagnostic criteria, course, treatment and prognosis of autism. Findings showed that all the groups reflected accurate endorsement of the DSM-IV criteria. However, primary health care providers and specialists were found to differentially endorse a variety of statements regarding prognosis, course and treatment in comparison with CARD [10].

Two hundred and forty-seven respondents (154 Physicians & 93 Non-physicians included Psychologists) participated in a study that assessed the baseline knowledge and misconceptions regarding autism among healthcare professionals in Pakistan. Reasonably accurate familiarity with the DSM IV-TR diagnostic criteria of Autistic Disorder was observed. However, within the professional groups, differences were found regarding the utilization of the DSM-IV-TR criteria when diagnosing Autistic Disorder [11].

It has been documented that there is limited information regarding ASD knowledge among school psychologists. School psychology graduate students were assessed with Autism Spectrum Knowledge Scale Professional Version (ASKSP) to measure ASD knowledge. The participants were asked about their self-perceived ASD knowledge and clinical skill competencies with children and families with ASD. The study showed that graduate students have many self-perceived limitations regarding ASD knowledge and competencies [12].

Three hundred final year undergraduate students were randomly selected from the Departments of Medicine, Nursing Science and Psychology in a Nigerian university with a socio-demographic questionnaire and Knowledge About Childhood Autism among Health Workers (KCAHW) questionnaire administered to them. The findings indicated that the field of study significantly influenced knowledge about childhood autism. Medical students scored highest on the KCAHW questionnaire, followed by nursing students and the psychology students scored least among the group [13].

Adequate knowledge about ASD among Medical social workers and Clinical psychologists may enhance early recognition, diagnosis, appropriate referral and interventions that are known to improve prognosis in autistic children. Unfortunately, there is a paucity of information knowledge about ASD among Medical social workers and Clinical psychologists in the Nigerian setting. Hence, this study determined Medical social workers' and Clinical psychologists' understanding of ASD.

Materials and methods

Ethical approval

Permission for this study was obtained from the Ethical Committee of Federal Neuropsychiatric Hospital Enugu, Nigeria. Written informed consent was obtained from the respondents that participated in the study.

Participants

The participants involved in this study were consenting 63 Medical social workers and 35 Clinical psychologists.

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Materials

1. Socio-demographic questionnaire

A socio-demographic questionnaire was used to obtain information on gender, age, marital status, ethnicity and religious affiliations.

2. Knowledge about Childhood Autism among Health Workers (KCAHW) questionnaire

This is a self-administered questionnaire that was developed by a team of psychiatrists and clinical psychologists. It contains a total of 19 questions. The instrument has been established to have good test-retest reliability and good overall internal consistency with Cronbach's alpha value of 0.97 [14]. It is used to assess baseline knowledge about childhood autism among health workers. Each of the 19 items has 3 options to choose from with only 1 out of the 3 being correct. The correct option on each item attracts a score of 1, whereas an incorrect option is scored 0. The KCAHW questionnaire is divided into 4 domains. A maximum score of 19 and a minimum score of 0 are possible when the 4 domain scores are added. The mean score on the KCAHW questionnaire among a particular sample population is a measure of the level of knowledge about childhood autism among that particular group. A total score of 19, which is the maximum score possible on the KCAHW questionnaire, indicates adequate knowledge of symptoms and signs of autism. The KCAHW questionnaire has been used in Nigerian studies and found to be culturally valid [12,15].

Methods

The socio-demographic and KCAHW questionnaires were administered to consenting 63 Medical social workers and 35 Clinical psychologists. The study instruments were filled by the participants and handed over to the researchers immediately to avoid consulting study materials or discussions with colleagues that may affect responses.

Data analysis

The generated data were analyzed using Statistical Package for Social Sciences (SPSS) version 22. The mean score in each domain and the mean total score were calculated for the two groups. The mean total score was related to the socio-demographic variables of the participants using an independent sample t-test.

Results

The Socio-demographic characteristics of the respondents.

The mean age of respondents who were Medical social workers, 42.1 ± 8.6 years was comparable to that of Clinical psychologists, 41.0 ± 8.9 years, (Student t = 0.638, p = 0.525). A higher proportion of respondents who were Clinical psychologists were males, 42.9% when compared to those who were Medical social workers, 41.3% but the difference in proportions was not found to be statistically significant, (χ^2 = 0.023, p = 0.879). A comparable proportion of respondents who were Medical social workers, 42.9% and those who were Clinical psychologists, 40.0% have ever managed a child with autism. (χ^2 = 0.075, p = 0.784). Table 1 shows the socio-demographic characteristics of the respondents.

Knowledge about Childhood Autism among the respondents.

The mean score for knowing that autistic children fail to develop peer relationships appropriate for their age was significantly higher for respondents who were Clinical psychologists, 0.91 ± 0.28 when compared with those who were Medical social workers, 0.73 ± 0.45 and the mean difference was found to be statistically significant, (Mann Whitney U test=2.198, p = 0.030). The mean score for knowing that an autistic child could appear as if deaf or dumb was comparable for respondents who were Medical social workers, 0.62 ± 0.49, and those who were Clinical psychologists, 0.74 ± 0.44. (Mann Whitney U test=1.240, p = 0.205). The mean knowledge score for variables in domain 1 was significantly higher for respondents who were Clinical psychologists, 6.34±1.78 when compared with those who were Medical social workers, 5.40 ± 2.30, (Student t = 2.108, p = 0.038). Table 2a shows knowledge of childhood autism among the respondents.

The mean knowledge score for variables in domain 3 was comparable for respondents who were Medical social workers, 2.54 ± 1.24 and those who were Clinical psychologists, 2.77 ± 1.17, (Student t = 0.904, p = 0.368). The mean knowledge score for domain 4 was comparable for respondents who were

Table 1: Socio-demographic characteristics of respondents.

Variable	Medical Social Worker (n = 63)	Clinical Psychologist (n = 35)	Student t	p value
Age of respondents (years)				
Mean ± (SD)	42.1 ± 8.6	41.0 ± 8.9	0.638	0.525
Age of respondents in groups				
<35 years	12 (19.0)	8 (22.9)	1.966**	0.374
35-44 years	24 (38.1)	17 (48.6)		
≥45 years	27 (42.9)	10 (28.6)		
Gender				
Male	26 (41.3)	15 (42.9)	0.023**	0.879
Female	37 (58.7)	20 (57.1)		
Marital status				
Single	9 (14.3)	7 (20.0)	0.539**	0.764
Married	52 (82.5)	27 (77.1)		
Separated/Divorced/Widowed	2 (3.2)	1 (2.9)		
Duration of service in years				
Mean ± (SD)	9.19 ± 6.84	7.09 ± 6.58	1.461	0.147
Has ever managed a child with autism				
Yes	27 (42.9)	14 (40.0)	0.075**	0.784
No	36 (57.1)	21 (60.0)		

** Chi square test

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Medical social workers, 2.86 ± 1.20 and those who were Clinical psychologists, 2.97 ± 1.36, (Student t = 0.430, p = 0.668). The mean total score for all variables was significantly higher for respondents who were Clinical psychologists 13.00 ± 2.86 when compared with those who were Medical social workers, 11.51 ± 3.43, (Student t = 2.184, p = 0.031). Table 2b shows knowledge of childhood autism among the respondents.

Discussion

Sixty-three Medical Social workers and thirty-five Clinical psychologists participated in the study. The mean age of Medical social workers was 42.1 ± 8.6 years and this was comparable to 41.0 ± 8.9 years for Clinical psychologists (Student t = 0.638, p = 0.525). Clinical psychologists who were males were 42.9% compared to 41.3% males for Medical social workers (p = 0.879). A comparable proportion of respondents who were Medical social workers, 42.9% and those who were Clinical psychologists, 40.0% have ever managed a child with autism in the course of their career (P = 0.784).

The mean knowledge score for variables in domain 1 was significantly higher for respondents who were Clinical psychologists, 6.34 ± 1.78 when compared with those who were Medical social workers, 5.40 ± 2.30 (p = 0.038). The score in domain 2 for Clinical psychologists was 0.91 ± 0.28 while Medical social workers scored 0.71 ± 0.46. The difference in score was significantly significant (p = 0.009). The mean total score for all variables was significantly higher for respondents who were Clinical psychologists 13.00 ± 2.86 when compared with those who were Medical social workers, 11.51 ± 3.43 (p = 0.031). In essence, Clinical psychologists significantly scored

Table 2a: Knowledge of childhood autism among the respondents.

Variable	Medical Social Worker (n = 63)	Clinical Psychologist (n = 35)	Mann Whitney U	p value
Domain 1				
Marked impairment in use of multiple non-verbal behaviours	0.78 ± 0.42	0.91 ± 0.28	1.718	0.089
Failure to develop peer relationship appropriate for age	0.73 ± 0.45	0.91 ± 0.28	2.198	0.030
Lack of spontaneous will to share enjoyment with other people	0.71 ± 0.46	0.80 ± 0.41	0.927	0.356
There is lack of social or emotional reciprocity	0.59 ± 0.50	0.83 ± 0.38	2.492	0.009
There is staring into empty space and not focusing on anything	0.73 ± 0.45	0.69 ± 0.47	0.462	0.645
The child could appear as if deaf or dumb	0.62 ± 0.49	0.74 ± 0.44	1.240	0.205
There is loss of interest in the surrounding or environment	0.63 ± 0.49	0.77 ± 0.43	1.392	0.152
Social smile is usually absent in a child with autism	0.60 ± 0.49	0.69 ± 0.47	0.807	0.422
DOMAIN 1 Total score	5.40 ± 2.30	6.34 ± 1.78	2.108*	0.038

*Student t test

Table 2b: Knowledge of childhood autism among the respondents continued.

Variable	Medical Social Worker (n = 63)	Clinical Psychologist (n = 35)	Mann Whitney U	p value
Domain 2				
There is delay or total lack of development of spoken language	0.71 ± 0.46	0.91 ± 0.28	2.353	0.009
Domain 3				
There is stereotyped and repetitive movements	0.76 ± 0.43	0.89 ± 0.32	1.487	0.111
Autism may be associated with abnormal eating habit	0.60 ± 0.49	0.80 ± 0.41	2.012	0.036
There is persistent preoccupation with parts of objects	0.76 ± 0.43	0.63 ± 0.49	1.400	0.183
There is love for regimented routine activities	0.41 ± 0.50	0.46 ± 0.51	0.422	0.674
Domain 3 Total score	2.54 ± 1.24	2.77 ± 1.17	0.904*	0.368
Domain 4				
Autism is childhood schizophrenia	0.27 ± 0.45	0.46 ± 0.51	1.895	0.072
Autism is an auto-immune disorder	0.33 ± 0.48	0.49 ± 0.51	1.485	0.150
Autism is a neuro-developmental disorder	0.89 ± 0.32	0.80 ± 0.41	1.202	0.267
Autism could be associated with mental retardation	0.73 ± 0.45	0.80 ± 0.41	0.765	0.446
Autism could be associated with epilepsy	0.27 ± 0.45	0.14 ± 0.36	1.444	0.127
Onset of autism is during childhood	0.37 ± 0.49	0.29 ± 0.46	0.791	0.431
Domain 4 Total score	2.86 ± 1.20	2.97 ± 1.36	0.430*	0.668
Grand Total score	11.51 ± 3.43	13.00 ± 2.86	2.184*	0.031

*Student t test

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higher than Medical social workers in domains 1, 2 and the total mean score.

Results from this study compared with a study that was carried out among all social workers working with disabled children in an English local authority which showed that there was confusion among the participants about some key facts concerning ASD, the characteristics of the condition, and scientific terminology and inaccurate understanding of intervention approaches 7].

This is in contrast to a previous study that surveyed licensed 793 social workers to assess their understanding and attitudes about autism. The study reported that social workers had accurate knowledge and held strengths-based attitudes about autism and persons on the autism spectrum [8].

Clinical psychologists showed a better knowledge of ASD compared to Medical social workers in this study. A similar result has been documented in a study that involved one hundred and eleven professionals with the Center for Autism Related Disabilities. The participants completed a questionnaire that assessed knowledge of diagnostic criteria, course, treatment and prognosis of autism. Findings showed that all the groups (including Clinical psychologists) reflected accurate endorsement of the DSM-IV criteria [10]. Also, Psychologists have been found to display reasonable accurate familiarity with the DSM IV-TR diagnostic criteria of ASD [11].

On the contrary, some previous studies have documented that School psychologists [12] and Psychology students [13] have limited knowledge regarding ASD.

Conclusion

Clinical psychologists significantly have more knowledge about ASD than Medical social workers. Medical Social workers knowledge about ASD is limited (11.51 out of a maximum total score of 19) in this study.

Recommendations

There is the need to factor in teachings and tutorials on ASD in the curriculum development for students of Medical social work while in training and introduction of continuing education for Medical social workers in practice that would incorporate aspects teaching on ASD and related disorders. Also, during the training of Medical Social Workers and Clinical psychologists, clinical rotations in facilities that care for autistic children should be encouraged. More future research especially in Nigeria where is a paucity of information on issues related to ASD is advocated.

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