Pakistan Journal of Life and Social Sciences
www.pjlss.edu.pk

https://doi.org/10.57239/PJLSS-2024-22.2.00253

RESEARCH ARTICLE

The Role of Media and Social Communication in Community Awareness of Autism Spectrum Disorder and Its Relationship to Changing Attitudes

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ARTICLE INFO

Received: May 19, 2024

Accepted: Jul 29, 2024

Keywords

Media
Social Communication
Autism Spectrum Disorder
Teachers
Attitudes

ABSTRACT

This study examines the impact of media and social communication on raising community awareness of Autism Spectrum Disorder (ASD) and its effect on changing attitudes. Using a descriptive approach, the researcher developed two tools to assess media's role in awareness and attitude changes. A sample of 275 teachers from the western region of Amman was surveyed. Results showed that media and communication channels had a moderate impact on awareness and attitude change, with no significant differences based on gender, experience, qualifications, or specialization, except for a notable gender difference fevering female in attitudes. A correlational relationship between media's role and attitude change was found. The study recommends enhancing media and social platforms for ASD awareness.

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INTRODUCTION

Media is widely recognized as a fundamental component of modern democratic societies, playing a crucial role in shaping public knowledge and opinions. With the advent of the 21st century, significant advancements in communication technologies and the rise of the Internet have transformed the ways in which information is disseminated and consumed (Nelson, 2000; **Sokolova & Kefi, 2023**). Social media platforms have emerged as vital tools for information exchange and public discourse, where users' interactions can significantly impact societal perceptions (Ariel & Avidar, 2015; **Kumar et al., 2023**).

Autism Spectrum Disorder (ASD) is a developmental condition that affects various aspects of a child's growth and functioning. Despite its increasing prevalence, there remains considerable variation in the understanding of ASD across different cultural contexts. Media representations of autism can influence public perceptions and impact the lives of those affected, as well as their families (Sharma & Singh, 2020; **Baron-Cohen, 2022**). Recent research underscores the need for effective media strategies to improve awareness, challenge misconceptions, and reduce stigma surrounding autism (Datu, 2023; **Wang et al., 2023**). This study investigates how media can play a role in enhancing community awareness about ASD through various forms of communication and public engagement (Schroeder et al., 2023; **Hossain & Ghosh, 2024**).

Research problem

In Jordan, there has been a notable increase in ASD diagnoses, highlighting the need for targeted research and media initiatives to address this issue. Media and social media platforms serve as crucial

tools for advocacy, public education, and awareness (Adamic, Lento, Adar, & Ng, 2016; **Kassem et al., 2024**). Observations of media interactions with educators have revealed a significant lack of information and prevalent misconceptions about autism. These misunderstandings adversely affect the integration of individuals with autism into educational settings and contribute to negative societal attitudes (Cho, Cannon, Lopez, & Li, 2022; **Bacon, 2024**).

THEORETICAL FRAMEWORK AND PREVIOUS STUDIES

1. Media and social media

A review of the literature on the role of media in community awareness about autism spectrum disorder reveals several challenges related to public understanding of this disorder. Wang, McKee, and Torbica (2019) highlight that misinformation is a major challenge posed by social media platforms. The role of media in cultural and social institutions is crucial for shaping public opinion towards achieving equality for individuals with disabilities and empowering them to be productive members of society rather than being dependent on others (Al Madi & Hassoun, 2023).

In this context, Turnock, Langley, and Jones (2022) argue that individuals with autism face social stigma that limits their ability to integrate into society and build interactive relationships with friends and peers. This stigma is influenced by public understanding of autism, as well as by cultural factors, gender, individual differences, and the efficiency of diagnosis and disclosure within a community. These elements significantly impact the well-being and quality of life of individuals with autism, contributing to their social isolation, stigma, and higher unemployment rates (Kor, Chua, & Imran, 2022).

In Jordan, the media plays a role similar to that of media worldwide, addressing national issues including those related to individuals with disabilities. Some studies have explored the role of Jordanian media in addressing these issues from the perspective of the families of individuals with disabilities. Based on the findings, researchers have called for media representatives to collaborate with experts and specialists in creating programs aimed at improving public perceptions and raising awareness about disability issues (Amer & Al-Otaibi, 2023).

Rosli, Mahmud, and Mahbob (2016) aimed to investigate the role of new digital media in addressing the needs of individuals with disabilities, identifying both challenges and future opportunities. Their study demonstrated how new digital media can help reduce the isolation of this group and outlined the challenges faced by traditional media in addressing their issues. The study emphasized that current concepts may be insufficient to counteract the negative effects of social media, which include the spread of misinformation (Wang, McKee, & Torbica, 2019). Consequently, media literacy should focus on awareness, understanding, and informed choices related to social media (Cho, Cannon, Lopez, & Li, 2022).

As the number of individuals with autism spectrum disorder continues to rise and their needs become increasingly diverse, it is essential to provide appropriate support and create a conducive educational environment for their integration. Media and social media can play a significant role in this process by raising community awareness and guiding decision-making (Gardiner & Iarocci, 2014).

An example of this impact is the Netflix series "Atypical," which portrays the experiences of a protagonist with autism and helps raise awareness about the disorder in an educational and engaging manner (Jones, Trott, Gordon, & Milne, 2023). In this regard, Datu (2023) suggests that accurate knowledge about autism can foster positive attitudes and kindness among high school students, as demonstrated by a study conducted in the Philippines through an online survey measuring kindness and knowledge about autism.

Finally, the teacher is a crucial component of the educational system, bearing the responsibility of shaping young minds and preparing future generations. However, UĞURLU (2023) notes that few general education teachers receive adequate training in practices for understanding students with autism spectrum disorder, highlighting the urgent need for improved teacher training and development in this area.

Research questions

Based on the above, the research questions are:

1. What is the role of media and social media in community awareness among teachers about Autism Spectrum Disorder?
2. What is the role of media and social media in changing teachers' attitudes towards Autism Spectrum Disorder?
3. Are there statistically significant differences at the level of ($0.05 \geq \alpha$) in the role of media in community awareness among teachers due to the following variables: gender, educational level, specialization, years of experience?
4. Are there statistically significant differences at the level of ($0.05 \geq \alpha$) in the role of media in changing teachers' attitudes towards Autism Spectrum Disorder due to the following variables: gender, educational level, place of work, specialization, years of experience?
5. Is there a statistically significant correlation at the ($0.05 \geq \alpha$) level between the role of media in community awareness and the role of media in changing teachers' attitudes towards Autism Spectrum Disorder?

RESEARCH METHODOLOGY AND PROCEDURES

Research methodology

After reviewing relevant literature, the descriptive survey method was adopted as the most suitable approach for this study.

Study population

The study was applied to teachers from the Ministry of Education and the Ministry of Social Development's special education centers in the capital governorate, with a total of 2,340 teachers from the Ministry of Education and 1,419 special education teachers from the Ministry of Social Development, according to data from the concerned ministries.

Sample

The study sample consisted of 275 teachers from the western region of the capital governorate of Amman. The sample was selected using a convenient sampling method, and the researcher was able to reach them during the first semester of the academic year 2023/2024. The study tools were converted into an online questionnaire sent to the concerned parties in the Ministry of Education and the Ministry of Social Development after being reviewed. A waiting period of 25 days was allowed for responses.

Demographic variables of the sample

The study sample was described according to the following demographic variables: educational level, gender, place of work, specialization, and years of experience.

Table 1: **Distribution of the study sample according to demographic variables**

Variable	Category	Number	Percentage
Educational Level	Intermediate Diploma	41	14.9%
	Bachelor's Degree	175	63.6%
	Graduate Studies	59	21.5%
Gender	Male	78	28.4%
	Female	197	71.6%
Place of Work	Public School	90	32.7%
	Private School	185	

Variable	category	Number	Percentage
Years of Experience	Less than 5 years - 7 years	103	37.5%
	More than 7 - Less than 10 years	55	20.0%
	10 years or more	117	42.5%
Total		275	100.0%

Study tools

Based on the nature of this study, the researcher found that the most suitable tool for data collection and achieving the study's objectives was a questionnaire. Therefore, two questionnaires were prepared, each consisting of three parts: the first part gathered demographic data (educational level, gender, type of school, years of experience, and specialization), while the second part measured the role of media and social communication in community awareness. The first questionnaire contained 17 items, and the second, which focused on attitude change, included 25 items divided into three dimensions: the emotional and affective dimension (6 items), the cognitive dimension (12 items), and the behavioral dimension (7 items

RESULTS AND DISCUSSION

Question 1: What is the role of media and social media in community awareness among teachers about Autism Spectrum Disorder?

To answer this question, means, standard deviations, ranks, and approval degrees for the study sample's responses to the community awareness measure were calculated. The results are shown in **Table 2**.

Table 2: Means and standard deviations for the community awareness measure items ranked by mean

rank	item no.	item	mean	standard deviation	approval level
1	1	Information from the media enriches our knowledge.	4.00	0.85	high
2	13	There is a need for presenting autism issues through digital media and mobile journalism.	3.92	1.00	high
3	7	I observe that media coverage of autism topics is mostly in the form of simple news rather than in-depth reports.	3.82	0.97	high
4	14	Media faces challenges in presenting autism issues due to families' reluctance to	3.81	0.99	high

		appear publicly or share their children's stories.			
5	8	Content about autism does not account for individual differences among teachers.	3.68	1.01	high
6	15	The information provided in the media about autism is outdated and does not reflect new knowledge about the disorder.	3.60	1.00	moderate
7	9	I find that the timing of awareness programs in the media does not fit our schedules.	3.58	1.02	moderate
8	12	Films about autistic individuals do not reflect the real situation.	3.57	1.02	moderate
9	10	Programs about autism are similar in their presentation.	3.56	1.02	moderate
10	5	Media focuses on successful experiences of people with autism.	3.49	1.06	moderate
11	3	Social media users are not interested in discussing autism-related topics.	3.45	1.06	moderate
12	17	Social media has contributed to sharing information about the struggles of families with autism.	3.40	1.08	moderate

Question 2: What is the role of media and social media in changing teachers' attitudes towards autism spectrum disorder?

To answer this question, the means and standard deviations for the domains of the Attitude Change Scale towards Autism Spectrum Disorder and for the overall scale were calculated. Additionally, the means and standard deviations for the items within those domains were determined. Table (3) shows these results.

Table 3: **Means and standard deviations of the domains of the attitude change scale towards autism spectrum disorder ranked in descending order of mean scores**

Rank	Number	Domain	Mean	Standard Deviation	Level of Agreement
1	3	Behavioral Domain	3.71	0.66	High
2	1	Emotional and Affective Domain	3.35	0.76	Moderate
3	2	Cognitive Domain	3.33	0.59	Moderate
Overall Scale	-	-	3.44	0.54	Moderate

Table (3) shows that the role of media in changing teachers' attitudes towards autism spectrum disorder is at a moderate level. The Behavioral Domain ranked first with a mean of 3.71 and a standard deviation of 0.66. The Emotional and Affective Domain was second with a mean of 3.35 and a standard deviation of 0.76. The Cognitive Domain was ranked last with a mean of 3.33 and a standard deviation of 0.59. The overall mean for all domains was 3.44 with a standard deviation of 0.54, indicating a moderate level of agreement.

Question 3: Are there statistically significant differences at the 0.05 level ($\alpha \geq 0.05$) in the role of media in community awareness among teachers attributed to the variables of gender, years of experience, academic qualification, workplace, and specialization?

To answer this question, a multivariate analysis of variance (MANOVA) was used to examine the differences in the mean responses of the sample on the Community Awareness Scale based on the study variables (gender, years of experience, academic qualification, workplace, and specialization). Table (4) presents these results.

Table 4: Means and standard deviations of sample responses on the community awareness scale by study variables

Variable	Level	Statistic	Community Awareness Scale
Gender	Male	Mean	3.44
		Standard Deviation	0.85
	Female	Mean	3.54
		Standard Deviation	0.42
Years of Experience	Less than 5 years - 7 years	Mean	3.54
		Standard Deviation	0.58
	More than 7 - Less than 10 years	Mean	3.50
		Standard Deviation	0.72
	10 years or more	Mean	3.49
		Standard Deviation	0.49
Academic Qualification	Intermediate Diploma	Mean	3.48
		Standard Deviation	0.63
	Bachelor's Degree	Mean	3.53
		Standard Deviation	0.56
	Postgraduate Studies	Mean	3.48
		Standard Deviation	0.57
Workplace	Public School	Mean	3.46
		Standard Deviation	0.73
	Private School	Mean	3.53
		Standard Deviation	0.48
Specialization	Special Education	Mean	3.54
		Standard Deviation	0.71
	Other Specializations	Mean	3.50
		Standard Deviation	0.49

Table (4) shows apparent variations in the means and standard deviations of the role of media in community awareness due to differences in categories of gender, years of experience, academic qualification, workplace, and specialization. To determine the statistical significance of these differences in mean responses, a multivariate analysis of variance (MANOVA) was performed. Table (5) presents these results:

Table 5: Results of multivariate analysis of variance for differences in mean responses on the community awareness scale by study variables

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	F-value	Statistical Significance
Gender	0.590	1	0.590	1.772	0.184
Years of Experience	0.007	2	0.003	0.010	0.990
Academic Qualification	0.085	2	0.042	0.127	0.881
Workplace	0.069	1	0.069	0.206	0.650
Specialization	0.481	1	0.481	1.444	0.231
Error	88.931	267	0.333		
Total	3479.796	275			

Statistically significant at the alpha level ($\alpha \geq 0.05$)

From the previous table, it is evident that there are no statistically significant differences at the 0.05 level ($\alpha \geq 0.05$) in the responses of the sample on the role of media in community awareness

according to the study variables (gender, years of experience, academic qualification, workplace, and specialization).

This result can be interpreted as indicating that the role of media and social media in influencing and attracting the attention of teachers is weak, regardless of their experience, specialization, academic qualification, or whether they work in the private or public sector. According to the researcher, this finding does not align with the study by Hidan (2022), which found that media program presenters contributed to changing community attitudes. However, it is consistent with the study by AlZboun, Sloan, and Mohaidat (2023), which found that journalists and special education teachers felt that the quality of media coverage on disability issues in Jordan was acceptable but not good or excellent. It also aligns with the results of the study by Mohamed Amer and Al-Otaibi (2023).

Question 4: Are there statistically significant differences at the ($\alpha \geq 0.05$) level in the role of media in changing teachers' attitudes towards autism spectrum disorder attributed to the following variables (gender, educational level, workplace, specialization, and years of experience)?

To answer this question, means and standard deviations of sample responses regarding the role of media in changing attitudes towards autism spectrum disorder were calculated based on the study variables (gender, academic qualification, workplace, specialization, and years of experience). The following tables present these results.

Table 6: Means and standard deviations of sample responses on the attitudes scale by study variables

Variable	Level	Statistic	Domain 1	Domain 2	Domain 3	Overall Domains
Gender	Male	Mean	3.22	3.22	3.50	3.30
		Standard Deviation	0.91	0.85	0.90	0.77
	Female	Mean	3.40	3.38	3.80	3.50
		Standard Deviation	0.69	0.44	0.51	0.40
Years of Experience	Less than 5 years - 7 years	Mean	3.39	3.31	3.78	3.46
		Standard Deviation	0.78	0.62	0.65	0.57
	More than 7 - Less than 10 years	Mean	3.24	3.27	3.57	3.34
		Standard Deviation	0.92	0.79	0.82	0.72
	10 years or more	Mean	3.36	3.38	3.72	3.47
		Standard Deviation	0.65	0.43	0.57	0.40
Academic Qualification	Intermediate Diploma	Mean	3.32	3.30	3.53	3.37
		Standard Deviation	0.84	0.75	0.77	0.68
	Bachelor's Degree	Mean	3.40	3.37	3.78	3.49
		Standard Deviation	0.76	0.56	0.62	0.52
	Postgraduate Studies	Mean	3.21	3.24	3.66	3.35
		Standard Deviation	0.67	0.56	0.66	0.47
Workplace	Public School	Mean	3.37	3.35	3.67	3.45
		Standard Deviation	0.82	0.69	0.73	0.64
	Private School	Mean	3.33	3.32	3.74	3.44
		Standard Deviation	0.73	0.54	0.62	0.48
Specialization	Special Education	Mean	3.22	3.29	3.58	3.36
		Standard Deviation	0.87	0.79	0.81	0.70
	Other Specializations	Mean	3.41	3.35	3.78	3.49
		Standard Deviation	0.69	0.46	0.56	0.43

Table (6) shows apparent variations in the means and standard deviations of the role of media in changing attitudes towards autism spectrum disorder due to differences in the categories of gender, years of experience, academic qualification, workplace, and specialization. To determine the statistical significance of these differences in mean responses, a three-way MANOVA was performed. Table (10) presents these results:

Table 7: Results of the three-way multivariate analysis of variance for differences in mean responses on the study scale by study variables

Source of Variance	Domain	Sum of Squares	Degrees of Freedom	Mean Square	F-value	Statistical Significance
Gender	Emotional and Affective	0.632	1	0.632	1.106	0.294
	Cognitive	1.343	1	1.343	3.897	0.049*
	Behavioral	1.597	1	1.597	3.821	0.052*
	Overall Domains	1.202	1	1.202	4.249	0.040*
Years of Experience	Emotional and Affective	0.545	2	0.273	0.477	0.621
	Cognitive	0.771	2	0.386	1.119	0.328
	Behavioral	0.729	2	0.365	0.873	0.419
	Overall Domains	0.446	2	0.223	0.788	0.456
Academic Qualification	Emotional and Affective	1.190	2	0.595	1.041	0.355
	Cognitive	0.884	2	0.442	1.282	0.279
	Behavioral	1.011	2	0.506	1.209	0.300
	Overall Domains	0.804	2	0.402	1.422	0.243
Workplace	Emotional and Affective	0.517	1	0.517	0.904	0.342
	Cognitive	0.461	1	0.461	1.338	0.248
	Behavioral	0.006	1	0.006	0.015	0.904
	Overall Domains	0.274	1	0.274	0.968	0.326
Specialization	Emotional and Affective	0.580	1	0.580	1.014	0.315
	Cognitive	0.121	1	0.121	0.352	0.554
	Behavioral	0.264	1	0.264	0.633	0.427
	Overall Domains	0.024	1	0.024	0.084	0.772
Error	Emotional and Affective	152.659	267	0.572		
	Cognitive	92.042	267	0.345		
	Behavioral	111.606	267	0.418		
	Overall Domains	75.528	267	0.283		
Total	Emotional and Affective	3236.921	275			
	Cognitive	3151.160	275			
	Behavioral	3912.612	275			
	Overall Domains	3338.666	275			

*Statistically significant at the alpha level ($\alpha \geq 0$.

Question 5: Is there a statistically significant correlation at the significance level (α ≥ 0.05) between the role of media in community awareness and the role of media in changing teachers' attitudes towards Autism Spectrum Disorder?

To answer this question, the Pearson Correlation coefficient was calculated between the Community Awareness Scale and the Attitudes towards Autism Spectrum Disorder Scale. The results are shown in **Table 8**

Table 8: Pearson correlation coefficient values between the community awareness scale and the attitudes towards autism spectrum disorder scale

Scale	Emotional and Affective Domain	Cognitive Domain	Behavioral Domain	Overall Attitude Scale
Community Awareness	.567**	.559**	.419**	.540**
Statistical Significance	.000	.000	.000	.000

Note: Significant at the 0.01 level (α ≥ 0.01).

From **Table 8**, it is evident that the Pearson correlation coefficients between the domains of media's role in changing attitudes towards Autism Spectrum Disorder and the scale of media's role in community awareness are statistically significant at the 0.01 level (α ≥ 0.01). This indicates a positive correlation between the role of media in community awareness and the role of media in changing teachers' attitudes towards Autism Spectrum Disorder.

This result shows a logical connection between the role of media and the change in attitudes towards Autism Spectrum Disorder. Media in all its forms plays a significant role in shaping community awareness across various domains, and social media platforms have become essential for quickly disseminating and receiving information. This finding aligns with the literature on the subject and most previous studies, such as the study by Chu et al. (2023) conducted in Malaysia, which demonstrated the importance of the connection between knowledge, awareness, and changing attitudes towards Autism Spectrum Disorder. Additionally, the study by Zarokanellou et al. (2023) conducted in Greece explored the importance of knowledge about Autism Spectrum Disorder in changing attitudes towards individuals with the disorder.

RECOMMENDATIONS

Based on the study's results and international literature, the following recommendations are made:

1. **Enhance media awareness programs for autism spectrum disorder (ASD):** Develop and expand media and social media campaigns focused on Autism Spectrum Disorder (ASD), drawing on findings from Chu et al. (2023), which highlight the importance of media in increasing ASD awareness.
2. **Train media professionals:** Provide training for media professionals to create impactful content that raises awareness about ASD, improves community understanding, and educates about the rights of individuals with ASD, as supported by Zarokanellou et al. (2023) in emphasizing the role of media in educating the public.
3. **Further research:** Encourage additional studies to explore the role of media in community awareness of ASD using diverse samples to build on existing knowledge and address gaps in the literature.
4. **Implement media literacy programs:** Establish media literacy programs that focus on improving public understanding of autism, emphasizing the importance of accurate and responsible media representations.

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