

The Effectiveness of a Training Program in Developing Gender Role Awareness Among Verbal Adolescents With Autism Spectrum Disorder

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Abstract

The current study aimed to educate verbal adolescents with autism spectrum disorder on gender role awareness. The study included 8 participants. To achieve the study objectives, a gender role awareness scale and a gender role awareness training program were built and used. To answer the study question, a one group design was used. The results indicated the effectiveness of the gender role awareness training program. The study recommended the need to train all categories and levels of severity of autism spectrum disorder on gender role awareness skills.

Key words: Gender role awareness; Verbal adolescents with autism spectrum disorder

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INTRODUCTION

Recently, it has been observed that the prevalence of autism spectrum disorder has accelerated. Its latest prevalence rate was 1 in 36 children under the age of eight, according to the Centers for Disease Control and Prevention (2024), and it is spread four times more among males than females. While The World Health

Organization (2022) has set the prevalence rate at 1 per 100 children. Autism Spectrum Disorder is known as a neurodevelopmental genetic disorder characterized by two basic manifestations: persistent deficits in communication and social interaction, and repetitive behaviors and restricted interests (American Psychiatric Association, 2022). Despite the efforts made by researchers to understand this disorder, it still poses a challenge, especially in the field of treatment, education, and acquiring daily functional skills. However, this disorder negatively affects daily activities and how they are carried out. The disorder restricts people's ability to use spoken language to communicate with others and the surrounding environment, which in turn reduces opportunities for communication and social interaction. Furthermore, autism spectrum disorder negatively affects the person with its adaptation to an environment, and this in itself reduces exposure to appropriate learning opportunities (El-Zraigat, 2016).

Gender roles refer to the stereotypes that a person perceives about the nature of the role expected of him, whether male or female (Tong, 2012). Gender role is characterized by a variety of expected behaviors, attitudes, and gender role stereotypes for both males and females, resulting from culture and social values. It includes general body appearance, behaviors, and rituals specific to males and females (Payne, 2024). It is often society that determines these roles, so we find that males and females practice expected behaviors according to societal standards. These roles are measured using special standards and procedures to reveal the behaviors expected of females and males (Blashill, 2011).

Thus, gender roles represent behavioral expectations based on biological sex. For example, males are expected to be more powerful and control, a lack of empathy, especially for males, and competition. This is often related to a person's self-image and how he sees himself, and this

affects the nature of the behaviors they practice and how others of both genders view his behaviors. Hence, males behave according to what is expected of them and to the standards set by their society (Fawkner, 2012).

Some researchers have linked gender dysphoria (GD) and autism spectrum disorder, but recent research has indicated that the relationship between autism and gender dysphoria is not entirely clear (The National Autistic Society, 2024). Also, people with autism spectrum disorder may be less likely to follow traditional gender roles and expectations (Behavioral innovations, 2024). Bejerot and Eriksson (2014) indicated that the characteristics of assertiveness, leadership, and competitiveness were lower in individuals with autism spectrum disorder compared to normal subjects, while females with autism spectrum disorder showed more masculinity in surviving.

Some investigators have explained that biases that may be practiced and ignoring the prevailing culture in society are factors that contribute to the diagnosis of autism spectrum disorder, especially in schools, and this may lead to differences and difficulties in determining gender identity documented at the national level (Golson, Haverkamp, McClain, Schwartz, Ha, Harris, & Benallie, 2022). Kehinde, Lindly, Ntombela, and Hermann (2023) noted that women often face significant difficulties with multiple and broad caregiving roles, while men perform their roles based on culturally bound patriarchal roles. As indicated by the results of the McQuaid, Lee and Wallac (2022) study, females with autism spectrum disorder, compared to males, practice camouflage behavior when applying the criteria for diagnosing the disorder. The study also showed that accommodation and compensation are better in adulthood compared to childhood for those diagnosed with autism spectrum disorder. El-Zraigat and Alshammari (2020) study also indicated that women practice camouflage behavior during the process of detecting and diagnosing autism spectrum disorder.

The results of Soto, Orantes, Russo and Antshel (2024) study confirmed the need to take into account the factor of sexual identities for mental health care providers for people with autism spectrum disorder, especially among university students. A review of the scientific literature concluded by Oates and Bean (2023) suggested that girls with autism spectrum disorder performed better than males with autism spectrum disorder, but the performance of these females was lower than expected when compared to the performance of girls without autism spectrum disorder. The results of the Seers and Hogg (2021) study showed that the social components of gender and the stereotypical understanding of autism spectrum disorder affect women's well-being, identity, and societal role. Cooper, Mandy, Russell and Butler (2023) concluded that adaptation to autism spectrum disorder usually depends on the environment of both males and females.

THE IMPORTANCE OF STUDY AND ITS QUESTIONS

Currently, there are many therapeutic and educational programs aimed at reducing the symptoms of autism spectrum disorder, developing the ability to learn, and acquiring meaningful daily functional skills. Despite this, there is a lack of training programs focused at developing awareness of the gender role of people diagnosed with this disorder (El-Zraigat, 2016). The World Health Organization (2022) has indicated that psychosocial programs achieve positive results for people with autism spectrum disorder, through which they can learn functional behaviors that improve their level of well-being. Just as the special needs of this group differ from one person to another, they are also differing in adolescence than in childhood. Perhaps one of the important needs in adolescence is awareness of the gender role that determines the behaviors of both females and males.

The gender role represents a variety of behaviors and beliefs that characterize the role played by both males and females. These roles are determined by society according to specific standards. The culture of society and prevailing values clarify these roles, and thus both males and females are required to act according to what is expected of them in their society and families. Families often play a prominent role in teaching gender roles and reinforcing them in the behaviors practiced by males and females. In Arab countries specifically, males and females are assigned and expected to have their own roles, and their status in society is determined according to them. Hence, the importance of the current study in constructing a program based on gender role awareness and investigating its effectiveness among a sample of verbal adolescents with autism spectrum disorder in the Kingdom of Saudi Arabia.

Specifically, the current study sought to answer the following question:

What is the effectiveness of a training program in developing awareness of the gender role of verbal adolescents with autism spectrum disorder in the Kingdom of Saudi Arabia?

Study objective

The present study aimed to construct a training program based on developing awareness of the gender role and investigate its effectiveness among a sample of verbal adolescents with autism spectrum disorder in the Kingdom of Saudi Arabia.

Study methodology

To answer the study question, the quasi-experimental method was used: a one group design (pre-measurement - training - post-measurement).

Participants

The study included 8 verbal adolescents with autism spectrum disorder, whose ages ranged between 14 and 16 years in the city of Al Reyadh in the Kingdom of Saudi Arabia.

STUDY TOOLS

Gender role awareness scale

The scale included 13 behaviors specific to the gender role of male and female adolescents. The scale was built based on relevant literature, such as: Bejerot, & Eriksson, (2014), education.alaska.gov, (2024), Geelhand, Bernard, Klein *et al.* (2019), [Morin](#), (2024), Wardany, & Hidayatullah, (2018). Its validity and reliability were verified on a sample of 20 people. Construct validity indicators reached 0.82, while test re-test reliability coefficients reached 0.86. These are acceptable for the purposes of the study.

Gender role awareness training program:

The program includes 10 training sessions aimed at developing awareness of the distinctive behaviors of both males and females of people with autism spectrum disorder. It was built based on relevant scientific literature such as: Bejerot, & Eriksson, (2014), [Chernyak](#), (2024), education.alaska.gov., (2024), Geelhand, Bernard, Klein *et al.* (2019), Hull, Mandy, & Petrides, (2017), [Morin](#), (2024), Mussey, Ginn, & Klinger, (2017), NIH., (2021), Positive Action, (2024), and Wardany, & Hidayatullah, (2018). Content validity was conducted to ensure the appropriateness for study participants.

RESULTS

This part presents the findings of the study:

Table 1
Means and standard deviations of the study participants' performance on the gender role awareness scale

Measurement	N	Mean	Std. deviation
pre	8	2.02	.217
post	8	3.03	.321

As shown in Table 1, the differences between the pre-measurement and the post-measurement amounted to 1.01. To determine the significance of the differences, the Wilcoxon Signed Ranks Test was conducted. Table 2 shows these results

Table 2
Results of the Wilcoxon Signed Ranks Test for the performance of study participants on the gender role awareness scale

Post - pre	N	Mean rank	Sum of ranks	Z	Asymp. Sig. (2-tailed)
Negative Ranks	0	.00	.00	-2.524	.01
Positive Ranks	8	4.50	36.00		
Ties	0				
Total	8				

It is clear from Table 2, that there are statistically significant differences ($\alpha = 0.05$) between the scores of the study participants on the gender role awareness scale in the pre- and post-measurements, and the differences were in favor of the post-measurement.

Study limitations

Limitations included the population of verbal adolescents with autism spectrum disorder, the number of participants, the methodology used to answer the study questions, and the location where the study was conducted.

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The results indicated the effectiveness of the gender role awareness training program. The resulting improvement is attributed to the nature of the training activities included in the program. The program included activities aimed at developing awareness of the gender role of verbal adolescents with autism spectrum disorder. The program consisted of selection activities directed at adolescents with autism spectrum disorder that focus on details and easy-to-use activities for teachers and participants. The program included activities related to stereotypical gender roles, expected occupations for both males and females, and dealing with the opposite sex. It included exercises on opinions and feelings about the opposite sex, analyzing the cultural attitudes of adolescents with autism spectrum disorder toward the opposite sex, expressing thoughts and emotions clearly and easily, understanding and analyzing stereotypical gender roles and how they are learned, and studying the effects of stereotypical gender roles on the career choices of both males and females. Furthermore, teachers used procedures such as encouraging adolescents with autism spectrum disorder to speak, teaching listening skills, promoting successful participation, practicing role-playing skills, and providing supportive and corrective feedback.

The program also included removing stereotyped perceptions and actions towards the opposite sex and

accepting and supporting the choices made by their peers. The teachers implementing the program also used the procedure of asking participants to make verbal responses, allowing free discussion, and using positive expressions as described by them. In addition to role-playing exercises, encouraging thinking and analyzing the adolescent with autism spectrum disorder's knowledge of himself and enhancing the ability to express his thoughts and emotions clearly helped. Providing realistic situations through which learning can be achieved greatly helped in achieving the program's objectives.

In conclusion, the gender role awareness training program helped verbal adolescents with autism spectrum disorder recognize the meaning and characteristics of the gender role for both females and males, and strengthened their responsibility to carry out behavior appropriate to their gender, and solve problems. The program also improved positive thinking skills, increased knowledge of abuse, and acquired skills to confront it.

Based on the results, the study recommends the following:

- Training people with autism spectrum disorder on gender role awareness skills.
- Using the experimental and control group design in other studies on gender role awareness training.
- The current study targeted the level 1 of autism spectrum disorder, so the study recommends targeting all levels of autism spectrum disorder severity.
- The current study targeted verbal adolescents with autism spectrum disorder, so the study recommends targeting non-verbal adolescents with autism spectrum disorder.
- The current study targeted adolescents with autism spectrum disorder, so the study recommends targeting children with autism spectrum disorder.

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