

Prevalence of Autism Spectrum Disorder with High- Functioning among Children Aged 7–12 Years Old

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Abstract

Background. Many people with high-functioning autism are not diagnosed and treated until pre-school or early school years. The aim of this study was to investigate the prevalence of high-functioning autism spectrum disorder in 7-12 year-old students in Arak city in order to identify these individuals and prevent further harm by early intervention.

Methods. This Cross-sectional analytical study was conducted on 2864 male and female students in the first to sixth grades of primary schools in Arak who had an IQ of 70 and above, using the ASSQ questionnaire between October 2017 and June 2018. This questionnaire is related to screening for autism spectrum, and its validity and reliability were established by Kasechi at the University of Social Welfare Sciences in 2013 in Tehran. Individuals who scored 22 or higher on the questionnaire were identified as having high-functioning autism spectrum disorder.

Results. In this study, 2864 elementary school students with an average age of 9.16 years (minimum 7 years and maximum 12 years) in the first to sixth grades were evaluated. 1.7% of students had high-functioning autism spectrum disorder. The age variable with P.value = 0.003 (The highest prevalence is related to the age group of 7 years with a prevalence of 3.1% and the lowest prevalence is related to the age group of 8 and 9 years with a prevalence of 0.7%) and the gender variable with p = 0.002 (1.1% of boy students and 2.3% of girl students) made significant difference in the prevalence of this disorder and the prevalence of the disorder was higher in girls than in boys.

Conclusion. High-functioning autism spectrum disorder is a latent disorder with a relatively high prevalence that is higher in girls than boys. Also, this prevalence is not age-related and there is a possibility of symptoms of this disorder at any age.

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Extended Abstract

Background

Autism Spectrum Disorder (ASD) is an important developmental neurological disorder in which people lose their ability to communicate and interact with

others. Autism spectrum disorder is currently classified into two modes: High-functioning autism and Low-functioning autism. People with high-functioning autism have near-normal communication skills, normal

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intelligence, and slight learning difficulties. Although the symptoms of this spectrum of autism disorder appear in the first and second years of life, many of these people are not identified and treated until pre-school age or in the early years of school. In the present study, we studied the prevalence of high-functioning autism in primary school children aged 7 to 12 years.

Methods

In this cross-sectional analytical study, the study population consisted of all male and female students aged 7 to 12 years in the first to sixth grades of all primary schools in Arak in the academic year 2017-2018. Therefore, the sample was selected randomly based on the alphabetical list and according to educational grade, age and gender. The total number of samples according to the primary schools of Arak was 3058 people. According to the inclusion criteria: the age range of 7 to 12 years and IQ of 70 and above, and also the exclusion criteria: unwillingness to cooperate, a total of 2864 people were included in the study. Of these, 1506 were girls and 1358 were boys.

Then ASSQ questionnaire was used to assess students. This questionnaire is related to screening for autism spectrum, and its validity and reliability were established by Kasechi at the University of Social Welfare Sciences in 2013 in Tehran. Individuals who scored 22 or higher on the questionnaire were identified as having high-functioning autism spectrum disorder.

Finally, after the students' questionnaires were completed, the data obtained from this study were entered into SPSS software, and the prevalence of high-functioning autism spectrum was obtained in general and based on gender and age. Independent t-test and analysis of variance were also used to compare the variables.

Results

In this study, 2864 elementary school students with an average age of 9.16 years (minimum 7 years and maximum 12 years) were evaluated from the first to sixth grades. 20% of the participants in the study were 7 years

old, 20.2% were 8 years old, 19.4% were 9 years old, 16.8% were 10 years old, 12.3% were 11 years old and 11.3% were 12 years old. Also, 47.4% of students were boys and 52.6% were girls.

The most important variable of this study was the prevalence of high-functioning autism spectrum disorder. The results of the present study showed that, 49 students were individuals with high-functioning autism spectrum disorder. In other words, the proportion of students with high-functioning autism spectrum disorder in primary schools in Arak in the 2017-2018 academic year was 1.7%.

Another variable evaluated in this study was the prevalence of high-functioning autism in different genders. Our results showed that 15 male students had high-functioning autism spectrum disorder while 34 female students had this disorder. In other words, 1.1% of male students and 2.3% of female students in primary schools in Arak had autism spectrum disorder with high performance and the rate of this variable was statistically significant in the two groups (P -value= 0.002).

The third variable evaluated in this study was to determine the prevalence of high-functioning autism spectrum disorder by age. The highest prevalence was related to the age group of 7 years with a prevalence of 3.1% and the lowest prevalence was related to the age group of 8 and 9 years with a prevalence of 0.7%. The comparison of the prevalence of high-functioning autism spectrum disorder in different age groups showed a statistically significant difference (P -value = 0.003).

Conclusion

High-functioning autism spectrum disorder is a latent disorder with a relatively high prevalence, which is higher in girls than boys. Also, this prevalence is not age-related and there is a possibility of symptoms of this disorder at any age. Early screening is essential for the rapid diagnosis and intervention of high-functioning autism to prevent further social harm.