

RESEARCH ARTICLE

High school teachers' knowledge about inattention - hyperactivity disorder (ADHD) and studying related factors

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ABSTRACT

Introduction: Due to the direct confrontation of teachers with academic issues and student behavior and their role in the identification, referral as well as the treatment of students with ADHD, it is necessary to have a good view with respect to these people until they be able to function properly in conjunction with it. Accordingly, in this study we have assessed the secondary school teachers' knowledge about ADHD disorder and if needed, take the necessary measures be taken to improve the knowledge of teachers.

Material and Methods: This study was a descriptive cross-sectional study in which 312 teachers of all subjects from all schools of Ahvaz were studied in high school level. For this study, a questionnaire KADDS (Knowledge of attention deficit disorder scale) in addition, a questionnaire about demographic information were used. After the study using SPSS version 22, data were analyzed and descriptive statistics and statistical tests were evaluated.

Results: In this study, 313 teachers had to fill out questionnaires. The average age of respondents was approximately 38 years and 40 percent of men and 60% women. Education level of 11.5 percent was associate's degree, bachelor 66.3 percent, 20.4 percent are postgraduates. The average duration of job skill time was almost 14 years. The level of general awareness about the ADHD has mean and standard deviation 18.1565 ± 3.73022 respectively. The average level of awareness about symptoms and how to diagnose ADHD was ("M = 9.7923, SD = 3.00294") and mean level of awareness about how to treat ADHD was ("M = 13.2212, SD = 3.19955 ") . There

was no significant correlation between respondents' age and level of knowledge about ADHD ($P > 0.05$). Between sex of respondents and their awareness about ADHD there was no significant correlation ($P > 0.05$) as well as between the educational level of respondents and their awareness about ADHD there was no significant correlation ($P > 0.05$) and finally between the respondents and their awareness about ADHD variable teaching years there was no significant correlation ($P > 0.05$).

Conclusion: The result of this study indicate low teachers' general knowledge of ADHD disease and the lack of sufficient information on all levels of education and annual record and even in both sexes, unfortunately are weak and shows the importance of special attention to improve teachers' awareness of the disease. For the treatment and management of patients with ADHD, treatment requires team work, family and teachers of the people should work in this field. However, because of lack of proper knowledge of teachers, part of this collaboration was unsuccessful and creates a vacuum in the treatment of patients with ADHD.

INTRODUCTION

Inattention - hyperactivity disorder (ADHD) or in other words, a "loss of sustained attention or hyperactivity" disorder is the most common in childhood that is defined impulsive behavior. Most commonly in children and adolescents with similar growth levels could be seen [1-3]. Boys have this disorder 2 to 9 times more than girls. This disorder is more common among boys family [1, 4]. ADHD in America is about 7-3% of school-age population infected and its prevalence in our country of 8 / 5-5 / 8% have been reported and 5% prevalence in adults is estimated to be [1]. Symptoms of this disorder usually appear in children less than 7 years. Of course, many children above the age of 7 years can be seen. When the child's behavior causes problems at school and elsewhere is [138-139] and studies have shown. 50 to 60 percent of

cases, symptoms of this disorder continue until adulthood [1]. Children with ADHD, often as irritable, hyperactive, lively, disorganized, aggressive, stressful and emotional determined and more likely to have emotional problems, social and behavioral are suffering. Children with the disorder as well as a lack of self-esteem, anxiety, depression and communication issues with peers face [4]. Interview and physical examination and diagnosis are done through a series of questionnaires such as questionnaires for parents and coach [3]. Etiology of ADHD is unknown. However, based on genetic studies of familial genetic origins for some types of this disorder has been demonstrated [5]. Adolescents with ADHD often severe yield problems. In many areas related to their knowledge. Including educational success and interact with peers .ADHD often associated with

other disorders such as annoying behavior, such as cross-defiant disorder occurs [2]. The disease causes dysfunction in children that are affected and is one of the most important areas of incorrect performance in children, and their academic performance. Studies have shown children with these defects due to the inability for focusing attention on duties, impulsive behavior and difficulty to control emotions; have problems in interpersonal and academic relations [1-6]. Studies have shown the symptoms of this disease can continue during adolescence and adulthood or hyperactivity may be overcome but deficits in attention and impulse control problems remain. Approximately in 15 to 20% of cases, symptoms continue into adulthood to be enhanced. The results show the continuing decline in their academic progress than people the in same age. They also are more at risk of behavioral disorders which in turn causes the disorder. That put people at greater risk of drugs abuse. Given the direct exposure of teachers with academic issues and student behavior and highlighted its role in the identification, referral and treatment process students ADHD, it is necessary to see properly with respect to these people to be able to function properly in conjunction with them. In fact, to treat the disease, interaction between families, teachers and therapists seems necessary. Therefore, ignorance of each of the groups involved, especially teachers, in the follow-up and treatment can cause inaccurate and sometimes hostile attitude and their behavior will be wrong and have irreversible effects on the future and fate of these people [1]. Accordingly, in this study

of secondary school teachers' knowledge about ADHD disorder, necessary measures have been taken into account to improve the knowledge of teachers.

MATERIALS AND METHODOLOGY

This cross-sectional study is a descriptive study that was conducted after obtaining permission from the university ethics committee in which 312 teachers of all subjects from all schools of Ahvaz were studied in high school. For this study, a questionnaire KADDS (Knowledge of attention deficit disorder scale) [7-8] were used. In addition, a questionnaire about demographic information, KADDS questionnaire containing 36 questions. The 36 questions in three areas (subscale), general knowledge about ADHD (15 questions), knowledge of how to recognize the symptoms and how to recognize patients (9 items) are. As well as information on how to treat ADHD (consisting of 12 questions) are. Grading is done to these questions with three options: agree, disagree or idea. Given the correct answer to question 2 score, score 0 wrong answer and the answer was no comment will score first. 83/0 reliability coefficient for the entire questionnaire and is 72/0 to three areas. After restoration permit from the Department of Education, teachers were given a questionnaire. Study variables included age, sex, education, school, work, and years of teaching, general information about ADHD, information about diagnosis and symptoms of ADHD and information on how to treat it. After obtaining information for describing data the frequency tables, and statistical methods were used to analyze the data.

RESULTS AND DISCUSSION

As can be seen in the results in this study were 313 teachers to fill in the questionnaires. The average age of respondents was approximately 38 years and 40 percent of men and 60% women. 5/11 education of my associate's degree, bachelor 3/66 percent, 20.4 percent are postgraduates. Since the sample included school teachers have been, none of the respondents' education diploma and doctor. The average duration of job skill is almost 14 years. The level of public awareness about the ADHD has mean and standard deviation 18.1565 ± 3.73022 respectively. The average level of awareness about symptoms and how to diagnose ADHD was ("M = 9.7923, SD = 3.00294)" and mean level of awareness about how to treat ADHD was ("M = 13.2212, SD = 3.19955 ") . This result for male showed that The level of public awareness about the ADHD has mean and standard deviation 17.7561 ± 3.41727 respectively. The average level of awareness about symptoms and how to diagnose ADHD was ("M=10.3252,SD=2.83276)" " and mean level of awareness about how to treat ADHD was ("M=13.5854 ,SD=2.99980"). and for female showed that The level of public awareness about the ADHD has mean and standard deviation 18.3676 ± 3.88350 respectively. The average level of awareness about symptoms and how to diagnose ADHD was ("M=9.4973,SD=3.02368)" and mean level of awareness about how to treat ADHD was ("M=13.0489 ,SD=3.20055"). Respondents between age and there is no significant correlation between the level of knowledge about ADHD. Because the amount is likely to be greater than 0.05 between sex of respondents and their awareness about ADHD

(except symptoms and how to diagnose ADHD) there is no significant correlation. Because the amount is likely to be greater than 0.05 as well as between the educational level of respondents and their awareness about ADHD there is no significant correlation. Because the amount is likely to be greater than 0.05 and finally between the respondents and their awareness about ADHD teaching experience variable there is no significant correlation because the amount is likely to be greater than 0.05. all of this result shows on tables 1-3 and figures 1-2.

Discussion and Conclusion: As was observed in the results. Teachers participating in the study, about 38 years old and most of them were women. The majority had a bachelor's degree. Data analysis showed that variables such as age, gender, education and experience, respondents with no significant relationship between the level of knowledge about ADHD. In order to better understand the findings and also compared with the achievements of other researchers in this field. Similar studies could be completed review of their results. For example Tashakori et al (2016) in study entitled " omparison of Fathers Knowledge with Mothers Knowledge of Attention Deficit Hyperactivity Disorder (ADHD) Among Referred to the Teaching Hospital Clinics in Ahvaz " presented that results show that the mean general knowledge of ADHD in the group of mothers (M = 5.96, SD = 2.30) is significantly higher than the group of fathers. (M = 5.55, SD = 2. 58)Also the mean level of knowledge about ADHD in the group of mothers (M = 4.12, SD = 1.69) is significantly

higher than fathers ($M = 3.79$, $SD = 2.1$). However the results of t-test for independent samples indicates the lack of significant difference between the mean level of knowledge about symptoms and how to diagnose ADHD in the group of fathers and mothers. Mean level of knowledge about ADHD treatment in the group of mothers ($M = 4.12$, $SD = 1.69$) is significantly more than fathers ($M = 3.79$, $SD = 2.1$). The results also indicate that there is a significant relationship between parents' knowledge and education ($P < 0.001$) but there is no significant relationship between age and residence location. In general, the level of general knowledge and the knowledge about how to treat the disorder in mothers is higher than fathers and indicates the need to train parents, especially fathers of ADHD patients also these results suggest mothers as more suitable option to participate in ADHD children treatment [9]. In her study such as this study, level of knowledge about ADHD was poor in people that entered in study with difference that in her study parents was evaluated and in current study teacher was evaluated. Also Tashkori et al (2014) in study with name Evaluation of in Ahwaz primary school teachers awareness of attention deficit Hyperactivity (ADHD) and related factors In a cross-sectional study on 330 primary school teachers using a questionnaire KADDS, reported that Mean level of knowledge about ADHD in teachers was low and not enough also Teachers amount of information about ADHD by increasing the education level increases. While the awareness of teachers with age and experience had taught them a significant negative relation(10). Also Guerr and colleagues in 2012 in Sharryland Independent School Texas high school teachers

know little about a study conducted about ADHD. The teachers' knowledge about ADHD in three areas, general information about ADHD, awareness of the symptoms and how to diagnose ADHD, awareness about the treatment of ADHD, using the questionnaire KADDS (Knowledge of attention deficit disorders scales), together Compare and shown. All teachers within the family and recognize that ADHD symptoms more than the two other areas. [7]. In this study, the same questionnaire was used. But the findings were not similar. This could be the difference in distance is very high in the study population. Because the teachings and workshops for teachers in Texas and Ahvaz definitely not the same and in none of the studies workshops on raising teachers' background is not mentioned. In another study, Funk and colleagues conducted a study in 2011 at Ohio University to assess teachers' knowledge Ohio, in dealing with students with ADHD. In this study, a questionnaire with 71 items that assesses five domains of the causes, characteristics, prevalence and treatment was adjusted, was used. This study showed the inadequacy of teacher information associated with ADHD. [11]. Although the questionnaire of this study and Funk study are not similar but since the same variables were evaluated with similar objectives, it can be seen that the results of the study revealed the findings the are even more similar. In another study by Perold and colleagues in 2010 in South Africa , a little study on the knowledge and attitudes of primary school teachers about ADHD that scale was used in this study, questionnaire KADDS (Knowledge of attention deficit disorders scales). After statistical analysis of the data, information of teachers about ADHD in general was poor. [8]. The study results are very similar

because the same questionnaire in a society developing in line with the results of the present study has shown. But a review of studies suggests. Similar studies have been done in Iran including "GHANI ZADEH" and colleagues at the University of Shiraz in Iran in 2009 a study carried out. The relationship between the awareness of having a child with ADHD and rejection and negative attitudes towards children was affected by their teachers. In this study, 558 primary school teachers, after reading a short biography of children with ADHD who were randomly selected from among the four biographies, responded to the questionnaire (in two out of four biographies mention of having a child with ADHD had not been). The differences in attitudes where teachers were aware of having the disease to ADHD than the anonymous ADHD, was observed. [12]. That study was conducted on a sample size more than this study. Although the teachers' training level has been primary school, in this study was high school, but what is important is the align of the results of both studies that show the lack of sufficient information by teachers. "KOOSHA" and co-workers in a cross sectional study in 1388 in Rasht, examined knowledge, attitude and practice of primary school teachers about attention deficit hyperactivity disorder. This study was conducted on 400 primary school teachers in Rasht. Segregated schools were randomly selected from public schools and non-profit and 10 teachers from each school participated in the study. Check with your use of the questionnaire was anonymous reporter. Finally it was found if the teachers were more intelligent and with a more positive attitude, the students showed a better performance in relation to this. [1] This study examines the

sample size of the study pay closer. But the results have not been consistent with the current study because the awareness and positive attitudes among teachers communicate with their performance. In fact, in addition to background information in the study about the disease to evaluate the performance of teachers was also discussed. Review of other studies and the results of this study indicate low teachers' general knowledge of ADHD is a disease and the lack of sufficient information on all levels of education and annual record and even in both sexes, unfortunately, is weak and the importance of special attention to improve teachers' awareness of the disease show. Because the treatment and management of patients with ADHD. Treatment requires team work, family and teachers of the people. However, lack of proper knowledge of teachers, part of this collaboration was unsuccessful and creates a vacuum in the treatment of ADHD. Therefore, it is recommended to charge devices. The workshop targeted to promote greater knowledge of the disease in teachers to provide patients, especially ADHD. Other researchers also recommended. Design studies teachers with a broader and more variables to increase scientific documentation about teachers' knowledge about the ADHD disease.

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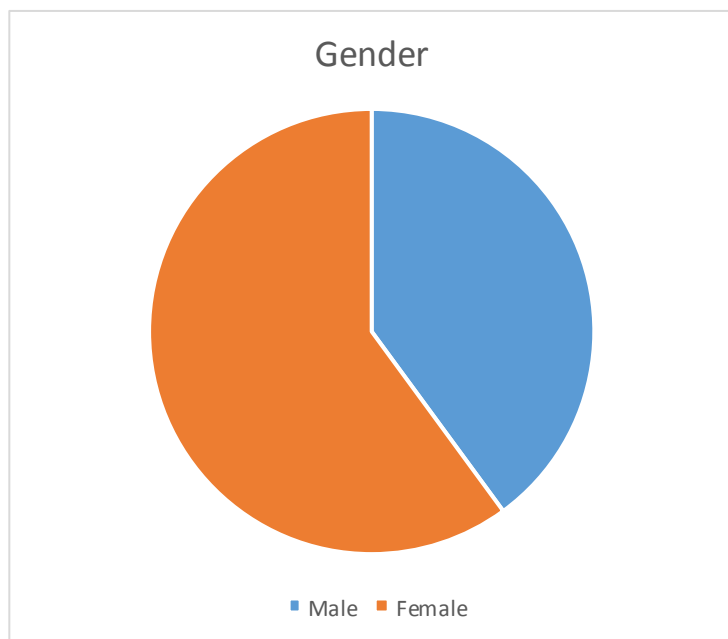


Figure 1. Gender difference between Teachers

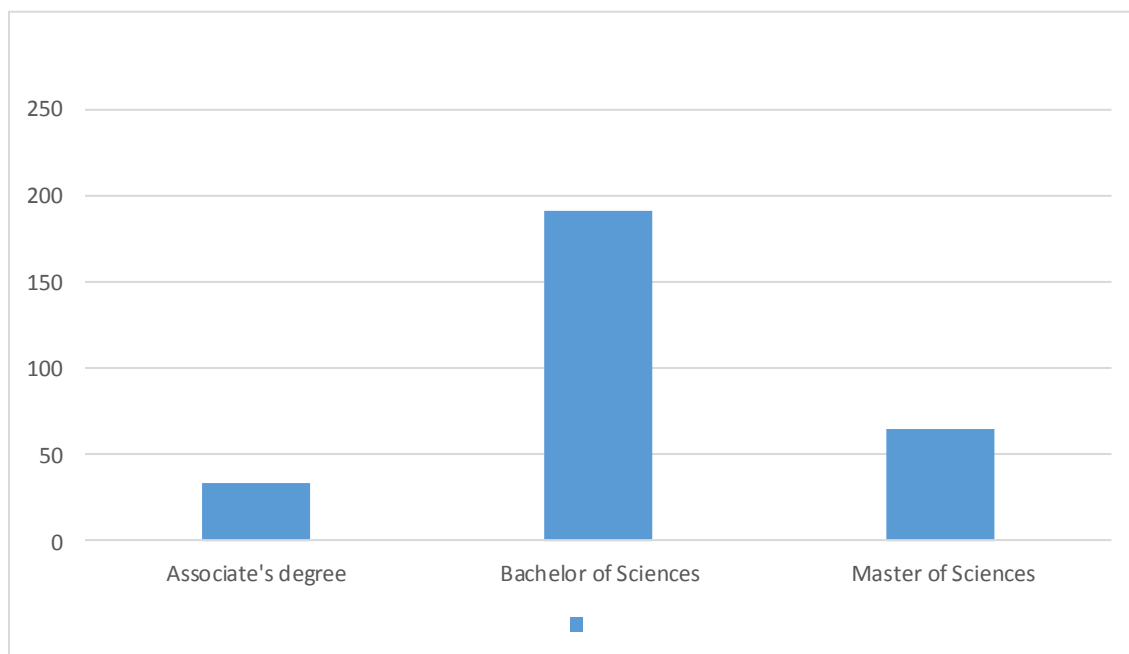


Figure 2. Educational Level In Teachers

Male	Quaestions	Frequency	Mean	SD	Min	Max
general awareness about the ADHD	15	123	17.7561	3.41727	10.00	10.00
awareness about symptoms and how to diagnose ADHD	9	123	10.3252	2.83276	.00	.00
awareness about how to treat ADHD	12	123	13.5854	2.99980	.00	.00
Total awareness about ADHD	36	123	41.3008	7.14824	12.00	12.00

Table 1. Awareness about ADHD in Male

Female	Quaestions	Frequency	Mean	SD	Min	Max
general awareness about the ADHD	15	185	18.3676	3.88350	4.00	28.00
awareness about symptoms and how to diagnose ADHD	9	185	9.4973	3.02368	.00	16.00
awareness about how to treat ADHD	12	184	13.0489	3.20055	.00	22.00
Total awareness about ADHD	36	185	40.6595	7.26574	15.00	58.00

Table 2. Awareness about ADHD in Female

Total awareness about ADHD	Frequency	Mean	SD	Min	Max	P-Value
Associate's degree	33	39.1212	7.05229	18.00	50.00	P>0.05
Bachelor of Sciences	191	40.8691	7.91990	12.00	59.00	
Master of Sciences	64	41.9062	5.58831	29.00	53.00	

Table 3. Awareness about ADHD by Educational Level