

RESEARCH ARTICLE

Evaluation of Elementary School Teachers' Knowledge about Signs and Symptoms of Attention Deficit Hyperactivity Disorder in AL-Diwaniyah City

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ABSTRACT

Background: ADHD is the most common emotional, cognitive, and behavioral disorder in childhood; according to the fifth edition of the diagnostic and statistical manual of mental disorder. It is typically diagnosed in the primary school years when the expectations for behavioral and social academic and performance (following rules, sitting quietly paying attention, working cooperative and productively so on) became problematic.

Objective(s): This study aimed to evaluate elementary school teachers' knowledge about signs and symptoms of Attention Deficit Hyperactivity Disorder in AL-Diwaniyah City.

Methodology: A quantitative research, descriptive correlational design was used in this study, the study conducted on teachers at elementary schools in AL-Diwaniyah City from (20th September 2021 to 30th June, 2022) to evaluate of elementary school teachers knowledge about signs and symptoms of attention deficit hyperactivity disorder. The sample consist of (354) elementary school teachers were participated in the study. A non-probability sampling (convenience sample). The sample size was detected by using the sample size formula which is obtained from Steven K. Thompson, (2012). To determine the effect sample size regarding the population size.

Results: The findings reveals that 62.7% of teachers show fair level of knowledge about signs and symptoms of attention deficit hyperactivity disorders (10.39 ± 3.765).

Conclusion: Teachers' knowledge about signs and symptoms of ADHD among the study sample were not sufficient and teachers showed that they need more experiences to deal with such disorders.

Recommendations: Elementary school teachers should be trained in identify ADHD symptoms as well as in behavioural management and academic interventions.

Keywords: Evaluation, Elementary Schools, Teachers, Knowledge, Signs and Symptoms, Attention Deficit Hyperactivity Disorder, ADHD.



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INTRODUCTION

The child is the most precious possession of society because it is the future of mankind and the source of its strength and progress. Parents are directly responsible for the health of the child in order to be successful in the future. On the other hand, schools also play an important role in building the child personality and developing the cognitive style. The role of the teacher is more important because he/she is in direct contact with the child; so that the contact between home and school must be enhanced, especially during the elementary school years (Bartolome et al., 2017).

The first years of a child life are the years of growth and development because it is the stage in which the child mental and physical skills are acquired (Jackman, 2011). One of the common and essential childhood disorders under study is one of inattention and/or hyperactivity, and impulsively (Pilgrim, 2019; Anto & Jacob, 2014).

The mental process (attention) considered as an important role child intellectual growth several of the children may suffer from a deficit in their attention with over activity this condition may lead them to do an inappropriate behavior, for instance, they cannot focus and complete one task & also they cannot sit still, or they do unfocused and, movements are random & impulsive (Khalil et al., 2019; Youssef et al., 2015).

Attention deficit hyperactivity disorder (ADHD) is typically diagnosed in the primary school years when the expectations for behavioral and social academic and performance (following rules, sitting quietly paying attention, working cooperative and productively so on) became problematic (Wilens & Spence, 2010).

ADHD is the most common emotional, cognitive, and behavioral disorder in childhood; according to the fifth edition of the diagnostic and statistical manual of mental disorder (Baron, 2018).

ADHD, is a chronic neurodevelopmental condition which is often associated with disturbed classroom behavior that can result in a range of functional difficulties for the childhood and social problems, learning disorders, externalizing behavior problems, psychological difficulties, problems with peer relations, reduced self-esteem, such issues often precipitate a referral to evaluating and treating clinicians (Lasisi et al., 2017; Brahmabhatt et al., 2016). Others defined it by developmentally inappropriate levels of inattention and/or hyperactivity impulsivity that are impaired to the children in more than one setting (at school, home or work; with relatives or friends) (Townsend & Morgan, 2018). ADHD, can

occurs without a clear cause; some theorists point to the possibility that neurological dysfunctions are the main cause, while others point to family stress as the main cause of its development (Singh et al., 2015). Given the uncertainty about its origins, most researchers; have of the opinion that it has multiple and interactive causes (Cardwell, 2014).

METHOD

Design of the Study

A quantitative research, descriptive correlational design was used in this study, the study conducted on teachers at elementary schools in AL-Diwaniyah City from (20th September 2021 to 30th June, 2022) to evaluate of elementary school teachers knowledge about signs and symptoms of attention deficit hyperactivity disorder.

Administrative Arrangements

Prior to the collection of the study results, official permits were obtained from the relevant authorities as follows: University of Baghdad/ College of Nursing Council. Ministry of Planning (CSO)' Central Statistical Agency' Official Permits. AL-Diwaniyah Educational Director to access the schools to facilitate the data collection.

Ethical Considerations

The involvement in the study was voluntary. The participant sign the consent form for voluntary participation in the study, they were given an anonymous questionnaire to preserve absolute confidentiality for the participants.

Settings of the Study

The study was conducted at governmental primary schools in AL Diwaniyah City, Iraq. The total number of primary schools was (20) governmental primary schools involved in the study, selected randomly from the total number (173) governmental primary schools in AL-Diwaniyah City.

Sample of the Study

The sample consist of (354) elementary school teachers were participated in the study. A non-probability sampling (convenience sample). The sample size was detected by using the sample size formula which is obtained from Steven K. Thompson, (2012). To determine the effect sample size regarding the population size.

Data Collection

The collected of the data was started from 3th March, 2022 to 15th April, 2022. The study and the

objectives were explained to the study sample by the student researcher, the teacher's verbal consent has been taken and the answering of questions has been done by using the self-administrated method.

RESULTS

Table (1): Distribution of Sample according to their Socio-demographic Characteristics

| List | Characteristics | f | % |
|------|--|------------------------|------------|
| 1 | Age ($M \pm SD = 40.68 \pm 7.748$) | less than 30 year | 4.3 |
| | | 30 - less than 40 year | 41.2 |
| | | 40 - less than 50 year | 38.7 |
| | | 50 \geq year | 15.8 |
| | | Total | 100 |
| 2 | Gender | Male | 38.7 |
| | | Female | 61.3 |
| | | Total | 100 |
| 3 | Residency | Urban | 27.1 |
| | | Rural | 53.1 |
| | | Suburban | 19.8 |
| | | Total | 100 |

f: Frequency, %: Percentage, M: Mean, SD: Standard deviation

The descriptive analysis in table 4-1 shows that teachers are with average age of 40.68 ± 7.748 years in which 41.2% of them are seen with age group of 30- less than 40 year and 38.7% of them are with age group 40- less than 50 year.

The gender refers that 61.3% of teachers are females and 38.7% of them are males.

Regarding residency, 53.1% of teachers are resident in rural and 27.1% are resident in urban.

Table (2): Evaluation of Teachers' Knowledge about Signs and Symptoms of ADHD

| Level | f | % | M | SD | Eval. |
|--------------|------------|------------|-------|-------|-------|
| Poor | 91 | 25.7 | 10.39 | 3.765 | Fair |
| Fair | 222 | 62.7 | | | |
| Good | 41 | 11.6 | | | |
| Total | 354 | 100 | | | |

f: Frequency, %: Percentage, M: Mean for total score, SD: Standard Deviation

Poor= 0 - 7.33, Fair= 7.34 - 14.66, Good= 14.67 - 22

This table reveals that 62.7% of teachers show fair level of knowledge about signs and symptoms of attention deficit hyperactivity disorders (10.39 ± 3.765).

Table (3): Mean and Standard Deviation for Items related to Teachers' Knowledge about Signs and Symptoms of ADHD (N=354)

| No | Items | Mean | SD | Eval. |
|----|---|------|------|-------|
| 1 | Fails to pay close attention to details | .86 | .760 | Fair |

| | | | | |
|----|--|------|------|------|
| 2 | Does not seem to listen when spoken to directly | 1.13 | .837 | Fair |
| 3 | Avoids engaging in tasks that require sustained mental effort | 1.03 | .881 | Fair |
| 4 | Often loses things necessary for tasks or activities | 1.04 | .841 | Fair |
| 5 | Is often forgetful during daily activities | 1.01 | .814 | Fair |
| 6 | Often leaves his / her seat in the classroom or is restless | .93 | .799 | Fair |
| 7 | Often fidgets with hands or feet or climbs excessively | .87 | .800 | Fair |
| 8 | Often talks excessively and has difficulty playing or engaging in leisure activities quietly | .82 | .759 | Fair |
| 9 | Often blurts out answers before questions have been completed | .88 | .735 | Fair |
| 10 | Often butts into conversations or intrudes on others | .80 | .696 | Fair |
| 11 | Often has difficulty waiting his /her turn | .74 | .703 | Fair |

No: Number, SD: Standard Deviation for total score, Eval.: Evaluation

Poor= 0-0.66, Fair= 0.67 - 1.33, Good= 1.34 - 2

This table presents the items of knowledge about signs and symptoms of ADHD; the mean score indicates that teachers have fair level of knowledge among all items of this domain.

DISCUSSION

The findings shows that two fifth of the teachers are seen with age group of 30- less than 40 year and more than one third of them are with age group 40- less than 50 year. low rate of employing in the education field, as we did not find young teachers and those who are in their twenties except very small %ages. This finding are supported in the literature with many evidences, as the result of Abbas Alshammari (2020) and Zan (2020) who declared approximately similar %ages while they were doing their research in different settings around the world.

The findings show that the number of the females in the sample of the study are more than the males, this can be explained as the educational field are preferable in Iraq among the females' gender due to the social trends. In the same line we see that Abbas Alshammari (2020) found similar %ages and the number of males and females were equal in his study. Another supportive evidence found in the literature by Zan (2020) who stated that the vast majority of his sample were females.

The findings of the present study reveal that slightly less than two thirds of teachers show fair level of knowledge about signs and symptoms of attention deficit hyperactivity disorders. The mean score indicates that the items of knowledge about signs and symptoms of ADHD; teachers have fair level of knowledge among all items of this domain. Teachers play an important part in both the initial diagnosis of attention-deficit hyperactivity disorder (ADHD) and the subsequent monitoring of the disease through the provision of relevant reports. Teachers are a significant part of children's lives, and as a result, their ideas may impact the treatment of ADHD. In addition to their direct assistance in the control of the symptoms of ADHD, teachers may also help in other ways to manage ADHD. The educators of children at preschools play a significant part in this respect (Table 1 and 2).

The findings of Amiri and his colleagues (2017) show that the awareness and perspectives of attention deficit hyperactivity disorder (ADHD) held by preschool instructors who are employed in Tabriz, Iran. The findings indicate that a teacher's attitude toward students who have ADHD is connected with both their general knowledge of

the disease as well as their understanding regarding the genesis of attention deficit hyperactivity disorder (ADHD). The preschool instructors in the sample from Tabriz had the highest awareness of the various treatments available for ADHD, the preschool instructors in the sample had a pretty high level of awareness of the signs and symptoms of ADHD. It appears that teachers are particularly aware of the signs of restlessness and noisy behavior. However, the instructors' understanding of the factors that contribute to the development of ADHD was rather limited. More than half of those who participated in the survey believed that attention deficit hyperactivity disorder (ADHD) is a congenital illness caused by chromosomal abnormalities. A little less than one quarter of the educators believed that ADHD was the outcome of a dysfunctional childhood.

After additional investigation, the results reveal that teachers knew more about the general associated aspects of ADHD than they did about the symptoms, diagnosis, and treatment of ADHD. This is because teachers were more educated about the general associated features of ADHD. A lack of knowledge was found across all of the subscales, but it was especially prevalent in the following statements: "children with ADHD generally experience more problems in novel situations than in familiar situations"; "it is common for children with ADHD to have an inflated sense of self-esteem or grandiosity"; and "reducing dietary intake of sugar or food additives is generally effective in reducing the symptoms of ADHD" (Topkin et al., 2015).

The characteristics of youngsters who are hyperactive and impulsive can be identified more clearly by their parents and instructors. On the other hand, recognizing the signs of inattention can be challenging, particularly for parents; as a result, the difficulties experienced by these youngsters may go unnoticed if just a straightforward screening is performed. In terms of sociodemographic characteristics, there were no variations between the three different forms of ADHD (Zorlu et al., 2020).

The findings of our study are supported by Alshehri et al. (2020) who stated that only 16 % of those participating in the experiment and 22 % of those serving as controls have sufficient understanding about ADHD. In a similar vein, several research concluded that educators do not have sufficient awareness about ADHD. This problem may make it more likely that ADHD will be misdiagnosed, that children with ADHD will be mistreated in the classroom, and that the condition's repercussions and outlook will become direr.

CONCLUSION

Teachers' knowledge about signs and symptoms of ADHD among the study sample were not sufficient and teachers showed that they are in need of more experiences to deal with such disorders.

RECOMMENDATIONS

Elementary school teachers should be trained in identify ADHD symptoms as well as in behavioural management and academic interventions. Must manager's schools' assessment of the capacity of their teachers with respect to teach children with special needs to provide support to the right for them to raise their efficiency.

ETHICAL CONSIDERATIONS COMPLIANCE WITH ETHICAL GUIDELINES

This study was completed following obtaining consent from the University of Baghdad.

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AUTHOR'S CONTRIBUTIONS

Study concept, Writing, Reviewing the final edition by all authors.

DISCLOSURE STATEMENT:

The authors report no conflict of interest.

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