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RESEARCH ARTICLE

ELEMENTARY SCHOOL COUNSELORS' LEVEL OF KNOWLEDGE OF ATTENTION DEFICIT HYPERACTIVITY DISORDER: THE CASE OF THE NORTH BORDER REGION OF SAUDI ARABIA

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Abstract

School counselors play a critical role in the identification and management of students with attention deficit hyperactivity disorder (ADHD). In order for the counselors to effectively help students with this condition, it is important that they have knowledge about this disorder. Therefore, the aim of this study was to assess the level of knowledge that elementary school counselors in the Northern Border of Saudi Arabia have with (ADHD). The Knowledge of Attention Deficit Disorder Scale (KADDS) was used to evaluate the counselors. The KADDS scale has three sub-scales that test general knowledge, diagnosis and symptoms, and treatment of ADHD. The study sampled 89 of approximate 200 school counselors working at elementary schools across the Region. The study data was analyzed using Statistical Packages for Social Sciences. The counselors got 31% of the questions in the general knowledge sub-scale correct while 43% were answered incorrectly, and 26% answered, "don't know." In the diagnosis/symptoms sub-scale 63% of the questions were answered correctly, 21% were answered incorrectly, while 16% answered "don't know." In the treatment sub-scale 38% of questions were answered correctly, 26% were answered incorrectly while 36% answered "don't know." Overall, 41% of the questions were answered correctly, 32% were answered incorrectly, while 27% answered "don't know." Based on these findings, the researcher concluded that the school counselors in the Northern Border Region of Saudi Arabia do not have sufficient knowledge of ADHD. This lack of knowledge invariably inhibits their ability to help children with ADHD.

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Introduction:-

Attention deficit hyperactivity disorder (ADHD) is one of the most common mental disorder that affects approximately 5%-8% of children across the globe (World Health Organization (WHO), 2019). The disorder is characterized by inattention, hyperactivity, and impulsivity (National Institute of Mental Health, 2020). Inattention means that the individual wanders off task, cannot carry out a task consistently, has difficulty sustaining attention, and is disorganized because they lack comprehension. Hyperactivity is when the person seems like they constantly need to move; that is, to fidget, tap, or walk. The individual seems to be very restless. Impulsivity is indicated by individuals making hasty actions on the spur of the moment without consideration for the outcome (Center for Disease Control and Prevention, (CDC), 2020).

Since the disorder mostly affects school-age children, researchers now estimate that in every mainstream classroom, there is at least one child with some form of ADHD (Goldstein, Naglieri, & Devries, 2011). Children with ADHD have challenges with learning and are often disruptive in the classroom. They consequently lag behind their peers academically and require the extra time and attention of their teachers. Therefore, it is critical that teachers have knowledge about ADHD so that they can be able to manage and teach this category of children.

Previous Studies in Saudi Arabia

A review of literature shows that many studies have been undertaken on the various aspects of ADHD in the Kingdom of Saudi Arabia. Alrahili et al. (2019), and Homdi, Obaidat, and Hamaidi (2013) evaluated the prevalence and screening for ADHD within Saudi Arabia. Amer, et al. (2019) and Hassan, Al-Haidar, Al-Alim et al. (2009) evaluated the diagnosis of ADHD. Al-Dakroury and Gardner (2017), Hariri (2016), and Alahmadi and Noor (2012) investigated aspects of language and communication for persons with ADHD.

In Saudi Arabia, despite the prevalence of ADHD being approximately 11%, only a few studies have been conducted to determine the understanding of the teachers about this health condition (Basudan, Akbar, El-Ghamdi, & Ibrahim, 2019). Further, the studies conducted provided contradictory findings, Aldawodi et al (2017) showed that teachers had a good understanding of ADHD, Abed, Pearson, Clarke, and Chambers (2014) established that teachers did not have sufficient knowledge of the disease. It is important to understand the level of knowledge of ADHD Saudi teachers have before carrying out further studies. It is against this background that the researcher proposed to determine the elementary school counselors' level of knowledge of ADHD in the North Border of Saudi Arabia.

Importance of the Study

It is hoped that the findings of this study will add to the pool of knowledge on the understanding of ADHD in Saudi Arabia and improve the education of children with this condition. The information collected can be used by the government, schools, universities, and civil society to create frameworks for the education of children with ADHD. It is hoped that the findings will ensure that future school counsellors will be fully equipped with knowledge on how to deal with children with ADHD.

Method:-

The researcher decided to study schools in the Northern Borders Region of Saudi Arabia. This study is motivated by the findings of Aboel-Fetoh, Alnathir, Alhussain, and Alnathir (2016) which established that in the Northern Border region the prevalence of ADHD was approximately 26.3%, which is higher than the national average of 11%. Thus, it is important to assess what the elementary school counselors know about ADHD.

There are approximately 200 primary schools in the Northern Border Region (General Administration for Education, 2020). This study was conducted by using self-reported a questionnaire method. Eighty-nine surveys were returned completed. Only one survey was incomplete. According to Mugenda and Mugenda (2008), when the study population is less than 10,000, a study sample of 10 to 30 percent is sufficient to generate findings that can be generalized.

Data Collection and Procedure

The study data was collected using questionnaires. The questionnaire consisted of the Knowledge of Attention Deficit Disorders Scale (KADDS) (Scuitto, Terjesen, & Frank, 2000). This scale consists of 36 questions which are designed to determine the level of knowledge and misconceptions of ADHD in three specific areas; namely, the symptoms and diagnosis, general knowledge on the nature, causes, and prognosis, and the treatment. The responses to the question range from true, false or don't know. The construct of the KADD is based on well documented and empirically supported constructs. The scale has a coefficient alpha of 0.71 which means that the results are reliable.

The researcher sought and obtained the approval from the School Counseling Department in the General Administration for Education in the North Borders in Saudi Arabia to conduct the study. Participants were volunteers and they were selected randomly. The researcher collected the questionnaires after two weeks. Only 89 of the questionnaires were returned having being filled. The data in the questionnaire was processed using the Statistical Program for Social Sciences (SPSS).

Results and Discussions:-

The respondents who participated in the study have different characteristics. Table 1 provides a description of the study participants.

Table 1:- Respondents Characteristics.

Variable	Number (n)	Percentage (%)
Gender		
Male	44	49.4%
Female	45	50.6%
Education Level		
Bachelor's Degree	71	79.8%
Post Diploma	13	14.6%
Masters	3	3.4%
Doctorate	2	2.2%
Experience		
Less than 5 years	21	23.6%
6-10 years	31	34.8%
11-15 years	15	16.9%
More than 15 years	22	24.7%

Source:- Study Data (2020).

Of the study participants, 44 were male while 45 were female. An evaluation of the level of education shows that the majority of participants, 79.8%, had bachelor's degree while 14.6%, 3.4%, and 2.2% had attained post-diploma, Masters, and Doctorate qualifications respectively. The findings show that the level of experience was varied with 21 participants having less than 5 years of experience, 31 had 6-10 years of experience, 15 had 11-15 years of experience, and 22 had more than 15 years of experience.

The KADDS is divided into three sub-sections. The first sub-section seeks to understand the counselors' general knowledge on the nature, causes, and outcomes of ADHD. Table 2 shows the participants responses to the general knowledge questions.

Table 2:- Participants Responses to General Knowledge Questions.

Questions	Correct answers	TRUE	FALSE	Do not know
1. Most estimates suggest that ADHD occurs in approximately 15% of school age children.	F	73	6	10
		82%	7%	11%
4. ADHD children are typically more compliant with their fathers than with their mothers.	T	24	29	36
		27%	33%	40%
6. ADHD is more common in the 1st degree biological relatives (i.e. mother, father) of children with ADHD than in the general population.	T	21	24	44
		24%	27%	49%
13. It is possible for an adult to be diagnosed with ADHD.	T	36	20	33
		40%	22%	37%
17. Symptoms of depression are found more frequently in ADHD children than in non-ADHD children.	T	45	15	29
		51%	17%	33%
19. Most ADHD children "outgrow" their symptoms by the onset of puberty and subsequently function normally in adulthood.	F	49	11	29
		55%	12%	33%
22. If an ADHD child is able to demonstrate sustained attention to video games or TV for over an hour, that child is also able to sustain attention for at least an hour of class or homework.	F	46	24	19
		52%	27%	21%
24. A diagnosis of ADHD by itself makes a child	F	66	9	14

eligible for placement in special education.		74%	10%	16%
27. ADHD children generally experience more problems in novel situations than in familiar situations.	F	70	9	10
		79%	10%	11%
28. There are specific physical features which can be identified by medical doctors (e.g. pediatrician) in making a definitive diagnosis of ADHD.	F	47	18	24
		53%	20%	27%
29. In school age children, the prevalence of ADHD in males and females is equivalent.	F	27	33	29
		30%	37%	33%
30. In very young children (less than 4 years old), the problem behaviors of ADHD children (e.g. hyperactivity, inattention) are distinctly different from age-appropriate behaviors of non-ADHD children.	F	60	10	19
		67%	11%	21%
31. Children with ADHD are more distinguishable from normal children in a classroom setting than in a free play situation.	T	74	8	7
		83%	9%	8%
32. The majority of ADHD children evidence some degree of poor school performance in the elementary school years.	T	48	26	15
		54%	29%	17%
33. Symptoms of ADHD are often seen in non-ADHD children who come from inadequate and chaotic home environments.	T	38	23	28
		43%	26%	31%

The findings in Table 2 show that most of the counselors did not know the percentage of children who have ADHD. When asked if an ADHD child is able to demonstrate sustained attention to video games or TV for over an hour, that child is also able to sustain attention for at least an hour of class or homework (item 22), 52% of the respondents answer true, 27% false, and 21% did not know. The answer was false, indicating that the majority of the counselors have a misconception about the way in which the symptoms of ADHD change according to tasks and settings. Item 28 seeks to understand if the counselors thought that there are physical features that help in the diagnosis of ADHD. The majority of respondents answered yes which is incorrect. Only 18% of the respondents answered the question correctly. This indicates that the majority of counselors were not aware that there is no medical examination to confirm the diagnosis of ADHD.

Table 3 provides a summary of the responses to the questions on the symptoms/diagnosis of ADHD.

Table 3:- Participants Responses to Symptoms/Diagnosis Questions.

Questions	Correct Answers	TRUE	FALSE	Do not know
3. ADHD children are frequently distracted by extraneous stimuli.	T	83	3	3
		93%	3%	3%
5. In order to be diagnosed with ADHD, the child's symptoms must have been present before age 7.	T	47	19	23
		53%	21%	26%
7. One symptom of ADHD children is that they have been physically cruel to other people.	F	53	27	9
		60%	30%	10%
9. ADHD children often fidget or squirm in their seats.	T	85	1	3
		96%	1%	3%
11. It is common for ADHD children to have an inflated sense of self-esteem or grandiosity.	F	33	20	36
		37%	22%	40%
14. ADHD children often have a history of stealing or destroying other people's things.	F	33	30	26
		37%	34%	29%
16. Current wisdom about ADHD suggests two clusters of symptoms: One of inattention and another consisting of hyperactivity/impulsivity.	T	70	8	11
		79%	9%	12%
21. In order to be diagnosed as ADHD, a child must exhibit relevant symptoms in two or more settings (e.g., home, school).	T	73	6	10
		82%	7%	11%
26. ADHD children often have difficulties organizing tasks and	T	68	14	7

activities.		76%	16%	8%
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The highest percentage of correct responses was in question 9 where 85% of respondents indicated that children with ADHD often fidget or squirm in their seats. This implies that the counselors are able to identify the basic features of ADHD. The lowest percentage of correct answers was registered in question 7 where only 30% of the respondents got the answer correct. It is of concern that 60% of the respondents thought that one of the symptoms of ADHD children is that they are physically cruel to other children while 10% did not know. In question 11 'It is common for ADHD children to have an inflated sense of self-esteem or grandiosity' majority of the respondents (40%) did not know, while 37% answered incorrectly. This suggests that majority of the respondents are not aware of the sub-types of ADHD.

Table 4 summarizes the responses of the counselors to the third scale which sought to determine their level of understanding of the treatment of ADHD.

Table 4:- Participants Responses to Treatment Questions.

Questions	Correct answers	TRUE	FALSE	Do not know
2. Current research suggests that ADHD is largely the result of ineffective parenting skills.	F	25 28%	47 53%	17 19%
8. Antidepressant drugs have been effective in reducing symptoms for many ADHD children.	T	20 22%	15 17%	54 61%
10. Parent and teacher training in managing an ADHD child are generally effective when combined with medication treatment.	T	79 89%	0 0%	10 11%
12. When treatment of an ADHD child is terminated, it is rare for the child's symptoms to return.	F	15 17%	22 25%	52 58%
15. Side effects of stimulant drugs used for treatment of ADHD may include mild insomnia and appetite reduction.	T	28 31%	9 10%	52 58%
18. Individual psychotherapy is usually sufficient for the treatment of most ADHD children.	F	40 45%	30 34%	19 21%
20. In severe cases of ADHD, medication is often used before other behavior modification techniques are attempted.	T	42 47%	16 18%	31 35%
23. Reducing dietary intake of sugar or food additives is generally effective in reducing the symptoms of ADHD.	F	62 70%	11 12%	16 18%
25. Stimulant drugs are the most common type of drug used to treat children with ADHD.	T	18 20%	21 24%	50 56%
34. Behavioral/Psychological interventions for children with ADHD focus primarily on the child's problems with inattention.	F	55 62%	10 11%	24 27%
35. Electroconvulsive Therapy (i.e. shock treatment) has been found to be an effective treatment for severe cases of ADHD.	F	7 8%	31 35%	51 57%
36. Treatments for ADHD which focus primarily on punishment have been found to be the most effective in reducing the symptoms of ADHD.	F	9 10%	68 76%	12 13%

The highest proportion of correct responses was to the treatment sub-scale questions was for question 10: 'Parent and teacher training in managing an ADHD child are generally effective when combined with medication treatment,' where 89% of the respondents answered correctly while only 11% indicated that they did not know. This indicates that the majority of respondents know that the treatment for ADHD needs the actions of multiple persons in the child's life and should be combined with medication. The highest number of incorrect answers was reported in question 23: 'Reducing dietary intake of sugar or food additives is generally effective in reducing the symptoms of ADHD' where only 12% of the respondents answered correctly. This indicates that the majority of counselors have misconceptions about the effect of diet on the symptoms of ADHD. In response to question 35, 'Electroconvulsive Therapy (i.e. shock treatment) has been found to be an effective treatment for severe cases of ADHD' 57% of respondents indicated that they did not know while 8% answered incorrectly, only 35% of respondents answered correctly. These findings imply that the majority of the respondents are not familiar with research on the

effectiveness of electroconvulsive therapy on the treatment of ADHD. Table 5 shows the percentage scores of the correct, incorrect, and don't know responses on the KADDS subscales and overall.

Table 5:- Scores of Responses to KADDS.

Sub-Scale	Correct	In-Correct	Don't Know
General Sub-Scale	31%	43%	26%
Diagnosis/Symptoms Sub-Scale	63%	21%	16%
Treatment Sub-Scale	38%	26%	36%
Overall	41%	32%	27%

The findings summarized in Table 5 show that the diagnosis/symptoms sub-score had the highest level of correct answers while the general sub-scale had the lowest score. Overall, only 41% of the questions were answered correctly while 32% were answered in-correctly and 27% were marked don't know.

Conclusion:-

The role of counselors in the identification and management of children with ADHD is crucial. The aim of this study was to determine the level of knowledge of counselors in the Northern Border region on ADHD. The findings indicate that their level of knowledge is fairly low. The findings of the study indicate that more effort needs to be made to educate and train primary school counselors in the Northern Border region regarding ADHD. In addition, there is a need to investment and development in school counseling programs in the region. Counselors who are knowledgeable about ADHD are better prepared to provide assistance and support children.

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References:-

- Alahmadi, M., & Noor, H. (2012). The acquisition of discourse markers in Arabic first language acquisition: A case study of a Saudi ADHD child. *The online journal of counselling and education* 1(1), 39-66.
- Abed, M., Pearson, S., Clarke, P., & Chambers, M. (2014). Saudi Arabian teachers' knowledge and beliefs about ADHD. *Journal of the International Association of Special Education* 15(1), 67-74.
- Aboel-Fetoh, N. M., Alnathir, J. F., Alhussain, A. A., & Alnathir, H. F. (2016). Attention Deficit Hyperactivity Disorder: An ignored disorder in primary school children in Arar, Northern Saudi Arabia. *International Journal of Advanced Research*. 4 (10), 299-304. Doi: 10.21474/IJAR01/1789
- Al-Dakrouy, W., & Gardner, H. (2017). Verbal output profile in children with attention deficit hyperactivity disorder. *Communication Disorder Deaf Study & Hearing Aids*, 5(1), doi: 10.4172/2375-4427.1000168
- Aldawodi, M., Alfageer, H., Al Queflie S., Masud N., Al Harthy, N., Alogayyel, N, et al. (2018). Knowledge and attitude of male primary school teachers about attention deficit and hyperactivity disorder in Riyadh, Saudi Arabia. *Journal of Natural Science, Biology, and Medicine*, 9(2), 257-262.
- Alrahili, N., Aldakheel, A. A., AlUbied, A., Almalki, A., AlBarrak, A., Al-Dosari, B., ... & Alageel, A. A. (2019). Prevalence of adult attention deficit hyperactivity disorder among medical students in Riyadh City. *International Journal of Medicine in Developing Countries*, 3(2), doi: 10.24911/IJMDC.51-1543855405
- Amer, Y. S., Al-Joudi, H. F., Varnham, J. L., Bashiri, F. A., Hamad, M. H., Al Salehi, S. M., ... & Saudi ADHD Society. (2019). Appraisal of clinical practice guidelines for the management of attention deficit hyperactivity disorder (ADHD) using the AGREE II Instrument: A systematic review. *Plos One*, 14(7), doi: 10.1371/journal.pone.0219239
- Basudan, M., Akbar, N., El-Ghamdi, W., & Ibrahim, A. (2019). Knowledge and attitude of female teachers toward ADHD at elementary schools, Jeddah, KDSA, 2017. *International Annals of Medicine*, 13(1),
- Center for Disease Control and Prevention. (2020). Symptoms and diagnosis of ADHD. Retrieved from: <https://www.cdc.gov/ncbddd/adhd/diagnosis.html>
- General Administration for Education in the North Border of Saudi Arabia. (2020). General statistics. Retrieved from <https://www.northedu.gov.sa>
- Goldstein, S., Naglieri, J., and DeVries, M. (2011). *Learning and attention disorders in adolescence and adulthood: assessment and treatment* (2nd ed.). New York: John Wiley & Sons.

12. Hariri, R. O. (2016). The comorbidity between attention-deficit/hyperactivity disorder (ADHD) in children and Arabic speech sound disorder. *Advances in Language and Literary Studies*, 7(2), 203-218. doi: 10.7575/aiac.all.v.7n.2p.203
13. Hassan, A. M., Al-Haidar, F., Al-Alim, F., & Al-Hag, O. (2009). A screening tool for attention deficit hyperactivity disorder in children in Saudi Arabia. *Annals of Saudi Medicine*, 29(4), 294-298. doi: 10.4103/0256-4947.55321
14. Homidi, M., Obaidat, Y., & Hamaidi, D. (2013). Prevalence of attention deficit and hyperactivity disorder among primary school students in Jeddah city, KSA. *Life Science Journal*, 10(3), 280-285.
15. Mugenda, O., & Mugenda, A. (2008). *Research methods: Qualitative and quantitative approaches*.
16. National Institute of Mental Health. (2020). Attention-deficit/hyperactivity disorder. Retrieved from: www.nimh.nih.gov/health/topics/attention-deficit-hyperactivity-disorder-adhd/index.shtml
17. Scitutto, M. J., Terjesen, M. D., & Frank, A. S. B. (2000). Teachers' knowledge and misperceptions of attention-deficit/hyperactivity disorder. *Psychology in the Schools*, 37(2), 115-122. Doi: 10.1002/(SICI)1520-6807(200003)37:2<115::AID-PITS3>3.0.CO;2-5
18. World Health Organization. (2019). Attention deficit hyperactivity disorder (ADHD). Retrieved from: [applications.emro.who.int > docs > EMRPUB_leaflet_2](http://applications.emro.who.int/docs/EMRPUB_leaflet_2).