

**Republic of Iraq**  
**Ministry of Higher Education**  
**& Scientific Research**  
**University of Babylon**  
**College of Nursing**



# **Knowledge and Attitudes among Primary School Teachers Regarding an Attention Deficit Hyperactivity Disorder**

**A Thesis Submitted**

*By*

**Rafal Ali Mohammed Hassan**

*To*

*The Council of College of Nursing, University of Babylon  
in Partial Fulfillment of The Requirements for The Degree  
of Master in Nursing Sciences*

*Supervised by*

**Prof. Dr. Kahtan Hadi Hussein (Ph.D)**

**October/2023 A.D**

**Rabi al-awwal/1445 A.H**

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ  
الْحَمْدُ لِلَّهِ رَبِّ الْعَالَمِينَ

﴿ قَالُوا سُبْحَانَ اللَّهِ لَعَلَّ نَا وَإِلَّا

مَا جَلَسْنَا وَإِلَيْهِ رُفْعُ الْعَلِيمِ

وَالْحَكِيمِ ﴾

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ  
الْحَمْدُ لِلَّهِ رَبِّ الْعَالَمِينَ

سُورَةُ الْبَقَرَةِ

الآيَةُ (32)

## Supervisor Certification

I certify that this thesis, entitled (Knowledge and Attitudes among Primary School Teachers Regarding an Attention Deficit /Hyperactivity Disorder) submitted by **Rafal Ali Mohammed Hassan** was prepared under my supervision and guidance at the Department of (Mental Health Nursing), College of nursing, University of Babylon as a partial fulfillment of the requirement for the Degree of Master of Sciences in Nursing.

Signature

**Prof. Dr. Kahtan Hadi Hussein (Ph.D)**

Supervisor

University of Babylon

/ 9 / 2023

Signature

**Prof. Dr. Amean A. Yasir (Ph.D)**

Head of department of mental health nursing Branch

College of Nursing

University of Babylon

/ 9 / 2023

## Discussion Committee Certification

We the examining committee, certify that we have read this thesis (**Knowledge and Attitudes among Primary School Teachers Regarding an Attention Deficit Hyperactivity Disorder**) which is submitted by (**Rafal Ali Mohammed Hassan**) from the department of (**Mental Health Nursing**), and we have examined the student in its contents, and what is related to it and we decide that it is adequate for awarding the degree of (**Master**) in nursing sciences with a specialty of (**Mental Health Nursing**) and estimate of (                    ).

Signature

**Prof.**

**Abdulmadhdi A. Hasan (Ph.D)**

Member

Date: / 9 / 2023

Signature

**Assistant Prof.**

**Hassan Ali Hussein (Ph.D)**

Member

Date: / 9 / 2023

Signature

**Prof.**

**Nuhad Mohammed Kassim (Ph.D)**

Chairperson

Date: / 9 / 2023

Approved by the council of the college of nursing

Signature

**Prof. Amean A. Yasir (Ph.D)**

**Dean of the College of Nursing, University of Babylon**

Date: / 9 / 2023

## Dedication

*I dedicate this humble work to my dearest parents, who were ready to sacrifice everything to support my progress.*

*My brother and sisters for their moral support and love.*

*Researcher*

*Rafal Ali Mohammed*

## Acknowledgment

First and foremost, I give thanks to the Almighty Allah, who has bestowed upon me the health, happiness, resolve, and fortitude necessary to complete this task.

I would like to express my sincere thanks to (**Prof. Dr. Amean A.Yasir** ) Dean of the College of Nursing, University of Babylon, for his efforts and support.

It is a pleasure to express my deep appreciation to my supervisor, (**Prof. Dr. Kahtan Hadi Hussein**), for his valuable guidance, assistance in providing good ideas, and cooperation and motivation throughout the course of my thesis preparation.

I also thank all the distinguished panel of experts who have arbitrated the study tool.

My deepest thanks and appreciations go to all others (managers and teachers in primary schools) who give me help and support for study achievement.

Finally, I would like to thank the College of Nursing at Babylon University, which allowed me to study for a master's degree, and extend my appreciation and thanks to all members of the college.

## ABSTRACT

Attention-deficit hyperactivity disorder affects young children's social and intellectual development as well as their general well-being in primary schools. It is a prevalent emotional, cognitive, and behavioral disease. Teachers are essential in the identification of Attention-deficit hyperactivity disorder because they often engage with students in a variety of circumstances. To keep a healthy learning environment, primary school teachers must, in essence, enhance their understanding of and favorable attitudes toward students with Attention-deficit hyperactivity disorder.

The study's objectives were to assess the knowledge and attitudes of primary school teachers towards Attention-deficit hyperactivity disorder, in addition to finding out the relationship between both the knowledge and the attitudes among primary school teachers regarding Attention-deficit hyperactivity disorder. Finally, to identify the relationship between the socio-demographic characteristics (age, gender, etc.), knowledge and attitudes among primary school teachers regarding Attention-deficit hyperactivity disorder.

A descriptive cross-sectional study was conducted in Al-Qassim district in Babylonian province with a convenience non-probability sample of (N=225) teachers. This sample is distributed to 20 primary schools. Data were collected through a questionnaire and self-report technique. The questionnaire includes a total of three items: 15 socio-demographic characteristics, 30 knowledge items, and 20 attitude items. The data were collected from March 1st to April 15th, 2023. It was then electronically evaluated using Microsoft Excel and IBM SPSS Version 20.

The study results confirm that teachers' have a poor level of knowledge (55.1%) and neutral attitudes (68.6%) regarding Attention-deficit hyperactivity disorder. As well, there was a positive correlation between the

### **III**

knowledge and attitude of primary school teachers regarding Attention-deficit hyperactivity disorder.

The study recommends that there is a need for teachers to receive education and training on how to deal with and care for children with Attention-deficit hyperactivity disorder. As well as the establishment of ongoing educational training courses, seminars, and workshops by the Ministry of Education for teachers, which would help in increasing interest and promoting positive attitudes towards children with Attention-deficit hyperactivity disorder.

## List of Contents

List	Subjects	Page No.
1	Abstract	I- III
2	List of Contents	IV-VII
3	List of Tables	VII-VIII
4	List of Figures	VIII
5	List of Appendices	IX
6	List of Abbreviations	IX
<b>Chapter One: Introduction</b>		<b>1-11</b>
1.1	General Considerations	2-5
1.2	Importance of study	5-8
1.3	Statement of the problem	8
1.4	Objectives of the study	9
1.5	Research Questions	10
1.6	Definition of Terms	10-11
<b>Chapter Two: Review of Literatures</b>		<b>12-45</b>
2	Overview of the problem	12
2.1	Historical Background about ADHD	13-16
2.2	ADHD Prevalence	16-18
2.3	Epidemiology	19
2.4	ADHD Types	20
2.5	Differences According to developmental stage	20-22
2.6	An attention deficit hyperactivity disorder risk factors	22
2.7	Etiology of ADHD	22-23
2.8	Predisposing factors	23-26
2.9	Assessing of ADHD	26-27
2.10	Diagnosis of ADHD	27-28
2.11	Methods of prevention of ADHD	28-29
2.12	Teacher Knowledge of ADHD	29-32
2.13	Teacher Attitudes toward ADHD	32-34
2.14	Factors influencing Teachers' attitudes and knowledge about ADHD	34-35
2.15	Strategies for Home and School	36
2.16	Application of the nursing process	36
2.16.1	Assessment	36-38

2.16.2	Nursing diagnosis	39-40
2.16.3	Intervention	40-41
2.16.4	Evaluation	41
2.17	Previous study	41-45
<b>Chapter Three: Methodology</b>		<b>46-57</b>
3.1	The study Design	47
3.2	Administrative agreements	47
3.3	Ethical considerations through the data collection	47
3.4	Study Setting	47
3.5	Sample of the study	48-49
3.5.1	Inclusion criteria	49
3.5.2	Exclusion criteria	49
3.6	The study instrument	50
3.6.1	Covering letters to obtain the subjects` agreements	50
3.6.2	Socio- demographic data	51
3.6.3	Primary school teachers knowledge about ADHD	51
3.6.4	Primary school teachers attitudes about ADHD	51
3.7	Rating and scoring	52
3.8	Validity of the instrument of study	52-53
3.9	Pilot of the study	53-54
3.10	Study instrument reliability	54
3.11	Methods of data collection	54-55
3.12	Statistics Analysis	55
3.12.1	Descriptive Strategy	55-56
3.12.2	Inferential Strategy	56
3.12.2.1	Analysis of Variance (ANOVA)	56
3.12.2.2	Independent Sample t-test	56
3.12.2.3	Pearson`s Correlation Coefficient	56
3.13	Limitations of the study	57
<b>Chapter Four: Results of the Study</b>		<b>58-74</b>
<b>Chapter five: Discussion of the Study Results</b>		<b>75-87</b>
5.1. A	Study Socio-demographic data	76-78

5.1. B	Sources of information about ADHD	78-79
5.2	Primary School Teachers Knowledge towards an ADHD.	80
5.2.1	Overall Primary School Teachers Knowledge about General Information of ADHD	80
5.2.2	Primary School Teachers Knowledge about Signs and Symptoms of ADHD	80
5.2.3	Knowledge of Primary School Teachers about Treatment of ADHD	80
5.2.4	Overall Primary School Teachers Knowledge towards ADHD	81
5.3	overall Primary School Teachers Attitudes towards ADHD	81
5.4	Correlation between Attitudes and Knowledge among Primary School Teachers towards ADHD	82
5.5	Statistical Differences in Knowledge and Attitudes with respect their Socio-Demographic Variables	83
5.5.1	Differences in Knowledge and Attitudes between Groups of Age	83
5.5.2	Differences in Knowledge and Attitudes between Groups of Gender	83
5.5.3	Differences in Knowledge and Attitudes between Groups of Residents	84
5.5.4	Differences in Knowledge and Attitudes between Groups of Marital Status	84
5.5.5	Differences in Knowledge and Attitudes between Groups of Education Level	84
5.5.6	Differences in Knowledge and Attitudes between Groups of Years of Experience	85
5.5.7	Differences in Knowledge and Attitudes between Groups of Teaching Stage	85
5.5.8	Differences in Knowledge and Attitudes between Groups of Specialist	85
5.6	Relationship between Knowledge of Teachers and Sources of data regarding ADHD	86

5.7	Relationship between Teachers Attitudes and Sources of Information regarding ADHD	86
<b>Chapter Six: Conclusion &amp; Recommendations</b>		<b>87-89</b>
6.1	Conclusion	88
6.2	Recommendations	88-89
<b>References</b>		90-99
<b>Appendices</b>		
<b>Arabic Abstract</b>		

### List of Tables

<b>List</b>	<b>Titles</b>	<b>Page No.</b>
2.1	Development of ADHD diagnosis standards since 1980	14-15
2.2	ADHD symptoms from childhood to maturity change over time	21
3.1	Primary schools in the Qassim area in Babylon province.	49-50
3.2	the Rating Scales and Scoring	52
3.3	Alpha Cronbach of Study Instrument's Items:(n=25)	54
4.1.1	Socio-Demographic information about the sample	59
4.1.2	Distribution of Study Sample by their Sources of Information- related ADHD	60
4.2.1	Knowledge of Primary School Teachers about General Information of ADHD	61-62
4.2.2	Knowledge of Primary School Teachers about Signs Symptoms of ADHD and	62
4.2.3	Knowledge of Primary School Teachers about ADHD Treatment of	63
4.2.4	Primary School Teachers Knowledge towards ADHD by Overall Domains	64
4.2.5	Overall Primary School Teachers Knowledge towards ADHD	65
4.3.1	Primary School Teachers Attitudes regarding an ADHD	66

4.3.2	Overall Primary School Teachers Attitudes towards ADHD	67
4.4	Correlation between Knowledge and Attitudes among Primary School Teachers towards ADHD	68
4.5.1	Discrepancies in Knowledge and Attitudes between Age Groups of	69
4.5.2	Differences in Knowledge and Attitudes between Gender Groups of	69
4.5.3	Differences in Knowledge and Attitudes between Residents Groups of	70
4.5.4	Differences in Knowledge and Attitudes between Marital Status Groups of	70
4.5.5	Differences in Knowledge and Attitudes between Education Level Groups of	71
4.5.6	Differences in Knowledge and Attitudes between Years of Experience Groups of	71
4.5.7	Differences in Knowledge and Attitudes between Groups Teaching Stage of	72
4.5.8	Differences in Knowledge and Attitudes between Specialist Groups of	72
4.6	Relationship between Teachers Knowledge and Sources Information regarding ADHD of	73
4.7	Relationship between Teachers Attitudes and Sources of Information regarding ADHD	74

### List of Figures

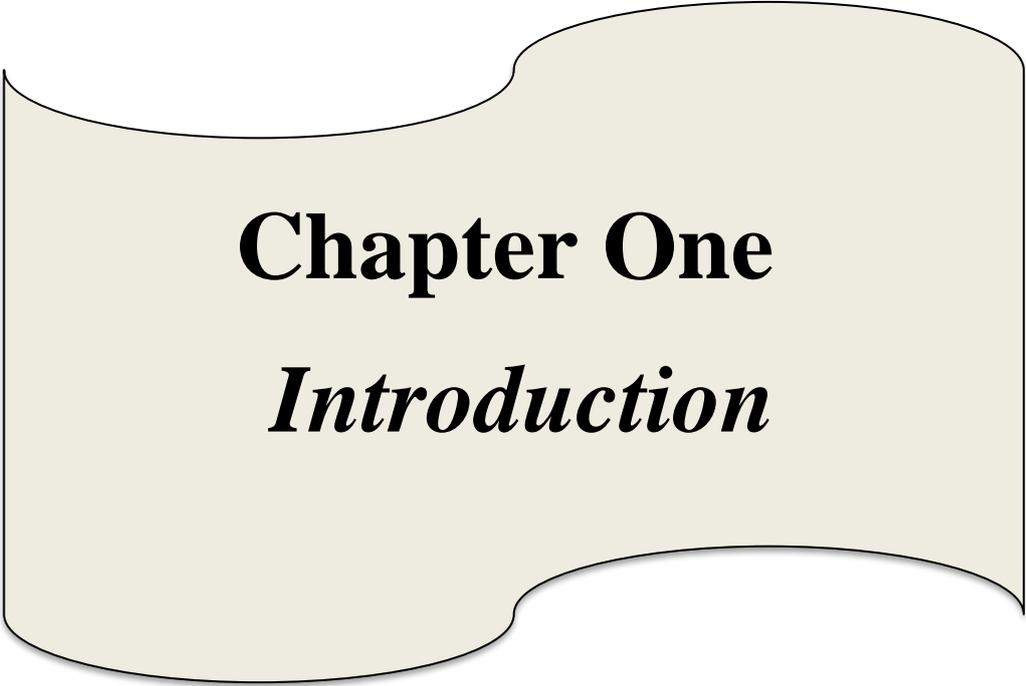
List	Figures	Page No.
4.1	Primary School Teachers Knowledge.	65
4.2	Primary School Teachers Attitudes.	67
4.3	Knowledge and Attitudes among Primary School Teachers towards ADHD.	68

## List of Appendices

List	Appendices
A	Administrative arrangements
B	List of governmental primary school in Babylon province.
C	Questionnaire
D	Panel of Experts
E	Linguistic approval

## List of Abbreviations

Abbreviations	Meanings
R	Alpha Correlation Coefficient
APA	American psychiatric Association
ANOVA	Analysis of variance
&	And
AD/HD	Attention Deficit/ Hyperactivity Disorder
CDC	Centers for Disease Control and Prevention
d.f	Degree of Freedom
DSM-5	Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition
F	Frequency
F	F-statistics
IQ	Intelligence Quotient
ICD-10	International Classification Diagnostic-10
et.al	Italia (others)
M	Mean
MS	Mean of score
NANDA	North American Nursing Diagnosis Association
N. S	Not Significant
ODD	Oppositional Defiant Disorder
%	Percentage
P. value	Probability value
Sig(s)	Significant
SD	Standard Deviation
SPSS-20	Statistical Package of Social Sciences-version 20
$\Sigma$	Summation of
N	Total Number of the Sample
WHO	World Health Organization



# **Chapter One**

## ***Introduction***

## Chapter One

### Introduction

#### 1-1: General Considerations:

A person's character starts to form during the formative years of life, making early childhood one of the most crucial periods for character formation. His intellectual development depends significantly on his mental processes, particularly his attention. Some of the children can have attention issues that are related to their hyperactivity. ADHD is often identified in the elementary school years when the behavioral, social, academic, and performance standards (obeying rules, remaining quiet while paying attention, cooperating with others, etc.) started to pose a difficulty ([Al-amarei, et al.2020](#)).

Children's academic, social, emotional, behavioral, and cognitive performance are all negatively impacted by ADHD symptoms ([Hosseinnia,et.al.2020](#)).

ADHD is a chronic neurodevelopmental condition that frequently results in disruptive behavior in the classroom. This behavior can cause a variety of functional difficulties for children, including social issues, learning disorders, issues with externalizing behavior, psychological issues, issues with peer relationships, and low self-esteem. These problems frequently prompt referrals to clinicians for evaluation and treatment ([Samir Hamed, et al.2022](#)).

ADHD is one of the most common neurobehavioral diseases in children, and it has an impact on how well kids interact with others, feel, and perform academically. ADHD is characterized by six or more symptoms from the inattention group of criteria and the hyperactivity and impulsivity

group of criteria, and is described as a recurrent behavior of attention deficit and/or hyperactivity-impulsivity that impairs one's everyday life or growth.

accordance with the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5); Symptoms that manifest negatively include those that do so in two or more circumstances. (for example, at home, school, or the place of employment; with individuals or family; in various other situations); are inconsistent with developmental level; and last for at least six months. Before becoming twelve, there needs to be a great deal of symptomatology ([Safaan, et al.2017](#)).

Attention deficit hyperactivity disorder is defined by the ICD-11 as a chronic pattern of inattention and/or hyperactivity-impulsivity that starts throughout the developmental period, most commonly from infancy to puberty. At least six months must elapse before this propensity resurfaces. The degree of inattention and hyperactivity/impulsivity affects academic, occupational, and social performance severely and is outside the range of normal fluctuation advised for age and intellectual functioning level. Being quickly distracted, having difficulty staying organized, and having difficulty concentrating on tasks that do not involve frequent rewards or a great deal of enthusiasm are all signs of inattention. Hyperactivity is characterized by uncontrollable movement and excessive motor activity in structured environments requiring behavioral self-control. The proclivity to act without thinking things through or pausing in reaction to an immediate stimulus is referred to as impulsivity. The precise manifestation of inattentive and hyperactive-impulsive tendencies differs from person to person and may alter over time. To be diagnosed, a disorder's behavior pattern must be easily identifiable in a range of circumstances ([Castanho, et al.2020](#)).

A child's first few years of life are a time of growth and development because this is the time when they are developing their physical and mental

abilities. One of the prevalent and important childhood problems being researched is impulsivity, inattention, and/or hyperactivity (Samir Hamed, *et al.* 2022).

Differences in the diagnostic criteria and rating scales employed, such as the Diagnostic Standardized Measure -5 (DSMIV) and the International Classification of Diagnostic Ten (ICD 10), may influence variations in the prevalence of ADHD (Shehata, *et al.* 2016).

The mental process (attention) is thought to play a significant impact in a child's intellectual development. Many of the kids may have attention deficit disorder combined with excessive activity, which can cause them to act inappropriately. For instance, they can be unable to concentrate on one job and cannot sit still, or they might move around randomly and impulsively (Samir Hamed, *et al.* 2022).

The diagnosis is mostly clinical, based on a thorough history of a child's early development and direct observation by parents and teachers. ADHD symptoms are usually detectable by the age of five. The majority of AD/HD youngsters aged 3 to 11 spend their time at home or in school. A child with attention deficit or hyperactivity disorder faces several social and academic obstacles, and it can be difficult for them to interact with their classmates and peers (Alfageer, *et al.* 2018).

ADHD expresses itself in three forms, according to the DSM-5 (American Psychiatric Association, 2013): predominantly inattentive, primarily hyperactive or impulsive, and mixed (Castanho, *et al.* 2020).

A person must demonstrate signs of being hyperactive-impulsive or inattentive in two or more contexts (for example, at home and at school), as well as struggle to keep up in class and finish tasks compared to their peers of the same age and sex, according to the diagnostic criteria (Shehata, *et al.* 2016).

Three to five percent of the world's children have attention-deficit/hyperactivity disorder (ADHD), and these kids are more likely to have difficulties in school, have behavioral and attitude disorders, have trouble maintaining relationships, withdraw socially, and have trouble adjusting to new situations (Mirza , *et al.*2017).

Fifty to sixty percent of kids with ADHD also meet The standards for another psychiatric condition, indicating that the two disorders are highly comorbid. Adult onset of symptoms occurs in 30–50% of children diagnosed with ADHD (Mirza , *et al.*2017).

Since ADHD can persist into adulthood, primary teachers who are aware of it can help these kids and give them attention when it's needed. Teachers who screen these kids early on can spare them from negative effects. The greatest environment for the disease's early detection and efficient management is a school. ADHD Children typically display productive behavior in a classroom context(Mirza , *et al.*2017).

Children with ADHD often struggle with language and communication. The financial costs of ADHD, the anxiety it causes families, the behavioral issues it causes at work, and the negative affect it has on self-esteem are just some of the ways that it has a significant negative influence on society (Mirza , *et al.*2017).

## **1-2: Importance of The Study:**

Children's health and illness are correlated with the society of the future and successive generations' health and illness. Therefore, a society's mental health will suffer irreparable harm infancy due to developmental issues such as infertility, growth in adolescence, and a lack of interest in learning about it (Arjmandi ,*et al.*2015).

Since children are the foundation of society and the source of its strength and advancement, they are its most prized possession. In order for a child to succeed in the future, the health of the child is directly the responsibility of the parents. However, schools also have a significant effect on a kid's personality development and cognitive style (Samir Hamed, *et al.*2022).

ADHD has a significant influence on society due to its high financial cost, the strain it places on parents and teachers, and the detrimental impacts it has on children's academic and professional performance. The illness impairs a person's ability to carry out important life tasks, including as maintaining healthy social and familial relationships, functioning in the workplace, being self-sufficient, and adhering to social norms (Safaan, *et al.*2017).

Since the teacher has more direct contact with the students, their needs, the relationship between home and school must be strengthened, particularly in the elementary school years (Samir Hamed, *et al.*2022).

While teachers' attentiveness, tolerance, and support might help young kids who suffer from low self-esteem, social exclusion, and loss of their rights, their ignorance and erroneous attitudes may have lasting effects on them. Therefore, having a proper understanding of and attitude toward ADHD is crucial, especially among instructors (Khademi, *et al.*2016).

Primary school teachers have a crucial role in the evaluation of children's academic and behavioral concerns since they frequently interact with children in a variety of controlled and unstructured situations. However, while teaching students who also have ADHD, teachers experience increased stress and workload, which makes them less successful at managing the affected students (Shehata, *et al.*2016).

Teachers need to get a better understanding of ADHD in order to help future students who have it do better in school, both academically and socially, as well as to build resilience and self-esteem in them, all of which can help these students succeed in the future (Safaan ,*et al.*2017).

One of the most common behavioral problems among schoolchildren, ADHD affects between one and two pupils in every classroom in the United States and is thought to affect between 8% and 12% of school-aged children. Around 10% of Baghdad/Iraqi elementary school students are thought to have ADHD. According to teacher reports, a recent survey on multiple primary schools in Najaf, Iraq found that the incidence rate among students of school age was about 25% ( Al-amarei , *et al.*, 2020).

If children with ADHD are not treated, it may have a major negative impact on their ability to learn, develop healthy interpersonal relationships, maintain their mental health, and prevent psychiatric co- morbidity. ADHD can be a disabling condition. Therefore, comprehensive treatment for ADHD involves teachers' participation in a variety of areas, such as the referral of kids with erratic behavior, exchanging information about their academic standing and background, social interactions, and general day-to-day functioning, as well as the treatment's planning and execution(Shehata ,*et al.*2016).

Attention deficit hyperactivity disorder, one of the most common psychiatric disorders affecting kids, has a significant negative impact on kids' social interactions, well-being, and academic development. First graders are in a critical developmental stage (Safaan, *et al.*, 2017).

American Psychiatric Association(APA) , 2013; DSM-5 ADHD symptoms, according to this, must have appeared before the age of 12.

According to a meta-analytic study, between 5% and 7% of children and adolescents worldwide are estimated to have ADHD (Castanho, *et al.*, 2020).

According to studies, interventional programs help teachers learn more about ADHD and have a better grasp of the disease, which helps these students perform better in the classroom (Shehata, *et al.* 2016).

Schools are increasingly recognized as having a significant and formative influence in children's mental health, in addition to their role in their cognitive, verbal, emotional, social, and moral development (Ahmed Sultan Alwily, *et al.* 2020). As a result, elementary school teachers' ignorance may lead to delayed action (Alfageer, *et al.* 2018).

The CDC reports that between 2003 and 2011, the prevalence of attention deficit hyperactivity disorder (ADHD) among school-aged children increased by 42% and 5% yearly, suggesting that at least one child in a class of average size will have ADHD (Safaan, *et al.* 2017).

Over the past few decades, numerous studies have focused on children with attention deficit hyperactivity disorder (ADHD). A child's life may be impacted by ADHD in every area. Significant degrees of impulsivity, hyperactivity, and focus issues are symptoms of this chronic illness. One of the main factors contributing to disruptive behavior and academic underachievement in schools is ADHD, which affects 3–5% of school-age children. There is strong evidence that 20–70% of children with ADHD still have symptoms as adults (Awadalla, *et al.* 2016).

### **1-3: Statement of The Problem:**

Assess the knowledge of primary school teachers and their attitudes toward attention deficit hyperactivity disorder in al-Qassim district in

Babylon Province to improve the child's condition, which will reduce the possibilities of psychological and behavioral problems.

Since teachers have a significant influence on their students' academic progress, better understanding of ADHD among teachers would result in higher awareness and understanding among students with ADHD.

When the teacher displays a favorable attitude toward children with ADHD, the students are more likely to accept adjustments and treatments meant to boost their conduct and academic performance.

#### **1-4: Objectives of the Study:**

The purpose of the current study was to achieve the following goals:-

1. To assess the knowledge among primary school teachers regarding an attention deficit/hyperactivity disorder.
- 2 .To assess the attitudes among primary school teachers regarding an attention deficit/hyperactivity disorder .
- 3 .To find out the relationship between both the knowledge and the attitudes among primary school teachers regarding an attention deficit/hyperactivity disorder .
4. To identify the relationship between the socio-demographic characteristics (such as: age, gender, etc.) with knowledge and attitudes among primary school teachers regarding an attention deficit/hyperactivity disorder.

#### **1-5: Research Questions:**

- 1- What is the knowledge and attitude level of primary school teachers about ADHD?

- 2- Is there a relationship between the knowledge level of primary school teachers' and their attitude about ADHD?
- 3- Is there a relationship between the knowledge level of primary school teachers about ADHD and socio-demographic characteristics?

## **1-6: Definition of Terms:**

### **1-6-1: Knowledge**

#### **1-6-1-A: Theoretical definition:**

Facts, information, and skills are acquired through experience or education; the theoretical or practical understanding of a subject (*Ashford; Duncan and Guth, 2015*).

#### **1-6-1-B: Operational definition:**

The knowledge is the information that primary school teachers know about ADHD in children of school age.

### **1-6-2: Attitudes**

#### **1-6-2-A: Theoretical definition:**

A feeling or reaction toward a reality or a condition, or a physiological condition of readiness to react in a particular way to a stimulus (such as an item, idea, or circumstance) (*Hadi,2020*).

#### **1-6-2-B: Operational definition:**

It is the opinion of primary school teachers that ADHD in students can have either positive or harmful effects.

---

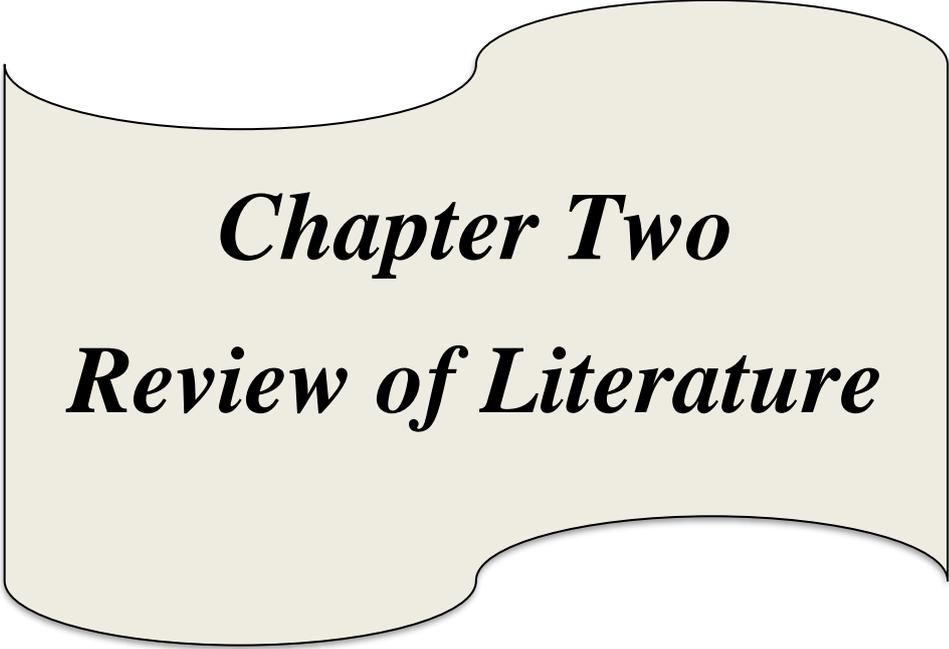
### **1-6-3: Attention-deficit/Hyperactivity Disorder (ADHD)**

#### **1-6-3-A: Theoretical definition:**

Attention deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental disorder characterized by three primary symptoms: inattention, hyperactivity, and impulsivity (Powell ,*et al.*2019).

#### **1-6-3-B: Operational definition:**

Poor academic performance, poor social interactions, a higher risk of suspension or expulsion from school, and leaving school sooner than their peers are just a few of the challenges that people with ADHD face.



***Chapter Two***  
***Review of Literature***

## Chapter Two

### Review of literature

This chapter provides a review of relevant literature and articles related to the phenomenon underpinning the current study.

#### **2. Overview of the problem:**

One of the behavioral disorders that teachers run into the most frequently is ADHD. Dealing with the symptoms of ADHD can be tough and frustrating for teachers (Ballantine, 2015).

Children, teenagers, and particular adults who exhibit hyperactive; impulsive ; or noticeably distracted behavior are referred to as having attention deficit hyperactivity disorder (ADHD) (Berri & Al-hroub, 2016).

#### **2.1: Historical Background about ADHD:**

Attention deficit hyperactivity disorder In 1902, Dr. George Still of London described 43 cases of children who had serious problems with self-regulation and sustained attention. These children were frequently defiant, aggressive, and resistant to punishment; passive or overly emotional; lacked much inhibitory volition; had problems with sustained attention; and were unable to learn from the consequences of their actions. Dr. Hoffman first coined the term (Fidgety Philip) in 1845. Other names for ADHD have included (minimal brain damage), (minimal brain dysfunction), and others have used the term (hyperkinetic). Professionals also use the terms (psycho-organic syndrome of childhood to attention deficit disorder) and (hyperactivity child syndrome) to refer to issues with hyperactive children who have trouble focusing. Finally, research and studies have focused on a more precise and clear definition of the condition (Al-amarei, *et al.*2020).

The diagnostic criteria underwent substantial revisions with the publication of the [American Psychiatric Association, 2013](#). Early DSM versions classified ADD and ADHD as disorders that were frequently diagnosed as a child, youth, or/ and adolescence. The DSM-5 ; which was just published, more accurately reflected ADHD's chronic developmental path and etiology by classifying it as a neurodevelopmental disorder. Despite three significant updates, the majority of the DSM-IV-original TR's diagnostic criteria for ADHD were retained. (3) There was a clause that allowed for the use of a diminish diagnostic criterion for symptoms in mature individuals (teenagers and up), needing only five (as opposed to six) signs of inattentiveness or/and hyperactivity/impulsivity. (1) The age requirement for incidence was raised from 7 to 12 years. (2) The presence of inattentive, hyperactive, or, impulsive symptoms was all that was necessary (as opposed to causing impairment) ([Mahone & Denckla 2017](#)). Important new diagnostic criteria in the DSM are highlighted in Table:1

Version	Year	Qualities and special requirements
DSM-III	1980	Attention Deficit Disorder, without Hyperactivity. Attention Deficit Disorder, with Hyperactivity.
DSM-III-R	1987	Undifferentiated ADHD (replaced ADD without Hyperactivity from DSM-III). Attention-Deficit Hyperactivity Disorder (ADHD).
ICD-10(European Description)	1992	F90: Disturbance of Activity and Attention. Includes ADHD without hyperactivity, and ADHD with associated features (learning, motor, ASD). F90.0: Hyperkinetic Disorders. Requires impaired attention, hyperactivity, early

		<p>onset (before age 6 years), and long duration. Anxiety and mood disorders and ASD must be excluded.</p> <p>F90.1: Hyperkinetic Conduct Disorder .Used when criteria for ADHD and Conduct Disorder are met.</p> <p>F90.8 Hyperkinetic Disorders, Unspecified.</p> <p>F90.9: Other Hyperkinetic Disorders.</p>
DSM-IV	1994	<p>ADHD, Not Otherwise Specified.</p> <p>Attention-Deficit/Hyperactivity Disorder (ADHD) with three subtypes: ADHD, Predominantly Inattentive Type; ADHD, Predominantly Hyperactive/Impulsive Type; ADHD, Combined Type.</p>
DSM-IV-TR	2000	<p>ADHD, Not Otherwise Specified allowed for onset &gt;age 7 and described symptoms of Sluggish Cognitive Tempo.</p> <p>No substantial changes to primary diagnoses and subtypes.</p>
DSM-5	2013	<p>Increased age of onset to &lt;12 years.</p> <p>Included symptom criteria for adult diagnosis. AD with 3 “presentations” Required “presence of”, rather than “impairment by” symptoms.</p>
ICD-10-CM	2017	<p>F90: Attention-deficit/Hyperactivity Disorders.</p> <p>Symptoms must be present before age 7 years .</p> <p>Includes F90.0 (Hyperactive Type).</p> <p>F90.1 (Inattentive Type).</p> <p>F90.2 (Combined Type).</p> <p>F90.8 (Unspecified Type).</p> <p>F90.9 (Other type).</p>
<p>ICD = International Classification of Diseases.</p> <p>DSM = Diagnostic and Statistical Manual for Mental Disorders.</p>		

(Mahone &amp;Denckla .2017)

## 2.2: ADHD Prevalence:

Attention deficit hyperactivity disorder (ADHD) is one of the most prevalent pediatric mental health diseases and is characterized by impulsivity, hyperactivity, and persistent inattention. Children in primary school are affected in the majority of nations. According to estimates based on a global meta-analysis that discovered 5.3% of children and adolescents had the disease, there is at least one child with ADHD in every classroom (Jimoh, 2014).

Different cultures experience ADHD at different rates. According to the DSM-IV diagnostic criteria, its prevalence among school-aged adolescents varies between 2% and 18%. The illness affects millions of children worldwide, with boys being impacted three to six times more frequently than females. In the USA, between three and five percent of primary school students have this disease (Berri & Al-Hroub, 2016).

About (5.29 to 12.01% ) of people worldwide suffer from ADHD (5.4–8.7% in Africa, 6.24% in Jordan, 16.4% in Saudi Arabia, and 6.90% in Egypt). Estimates for male students in primary schools range between 6 and 9%, while those for female students are between 2 and 3%. About 30 to 50 percent of teenagers with ADHD still show symptoms as adults (Shehata , *et al.* 2016).

The prevalence rates differ based on sex. In general population research and clinical samples, the male to female ratio was found to be 4:1 and 2:1, respectively (Castanho, *et al.* 2020).

Depending on an individual's age and socioeconomic status, ADHD prevalence varies. According to some experts, school-age children are most frequently affected by the disease, which may also be more prevalent in areas with lower socioeconomic status (Senol, *et al.* 2018).

On average, one child per classroom is diagnosed with ADHD in the early years of schooling. It is widespread within the educational system. The disease is often recognized during the first years of schooling because children are required to behave in specific ways that conflict with the basic indicators of the illness, such as sitting still, being attentive, and complying with teacher instructions. Therefore, elementary school instructors are probably among the first to spot children's ADHD signs (Jimoh, 2014).

According to some research, 46% of adolescents and 33% of children have oppositional defiant disorder (ODD), which frequently coexists with ADHD. The relationship between ODD and ADHD may indicate the early onset of disruptive behavior disorder (DBD) symptoms, even if it is debatable whether or not ADHD contributes to the genesis of DBDs (Senol, *et al.* 2018).

In the United States, the Center for Disease Control estimates that 4.4 million kids between the ages of 4 and 7 have been diagnosed with the condition. Global prevalence is estimated to be 5.29%, varying throughout areas, nations, and different age groups. Different prevalence have been recorded by more recent research conducted in various parts of the world. School-age children had a prevalence of 1.7% based on ICD-10 criteria and 7.3% based on DSM-IV criteria. Its incidence is generally considered to be between 2 and 18 percent, according to a number of reports that have been presented in Iran and around the world. Male to female incidence ratios range from 2 to 1 to 9 to 1 in favor of males. In contrast, parents detected fewer indicators of ADHD in girls than in boys. Girls are more likely to be distracted than males, while boys are more usually referred for hyperactivity (Arjmandi, *et al.*, 2015).

The element that unites all of these studies is that ADHD is relatively widespread in primary school students. The observed variations in ADHD

prevalence between nations are likely the result of various diagnostic approaches rather than variations in the disorder's clinical symptoms or indicators. Recent studies show that the disease, particularly the issue of inattention, frequently persists into adulthood. About 50% of children with attention deficit disorder or hyperactivity display all of the symptoms of the illness as adults ([Arjmandi , et al., 2015](#)).

The diagnosis and treatment of ADHD should take cultural differences into account due to the substantial influences of the family's background culture and the teacher's perspectives. Depending on the diagnostic standards each nation employs, ADHD has a wide range of reported prevalence rates ([Berri & Al-Hroub, 2016](#)).

The high prevalence of ADHD may have unfavorable consequences for pupils' academic success. Therefore, it is anticipated that instructors will play a significant part in supporting these youngsters and averting the difficulties that may result from this illness ([Berri and Al-Hroub, 2016](#)).

Despite the need for an early diagnosis and consistent treatment, research suggests that ADHD is not typically identified in children until they begin school because parents and teachers are not sufficiently aware of the significant effects of this illness. Therefore, primary school teachers play a significant role in the early identification and effective management of ADHD ([Hosseinnia, et al., 2020](#)).

### **2.3: Epidemiology:**

Epidemiological evidence indicates that during the past 20 years, the incidence of ADHD has dramatically grown. Many people assume that ADHD is an illness founded in cultural and socioeconomic characteristics that are ostensibly common in the United States because of this and the fact that the majority of research on the condition has come from the United

States over the past 40 years. However, a growing body of data indicates that ADHD is a worldwide issue.

As evidenced by a recent meta-analysis, pooled prevalence statistics from multiple continents indicate a prevalence rate of more than 5%. However, it should be noted for the sake of this analysis that there is little to no epidemiological data from the Caribbean region(Youssef , *et al.*, 2015).

In primary schools, estimates range between 6 and 9 percent for boys and 2 and 3 percent for girls. Between 30 and 50 percent of children with ADHD who were identified as young children still show symptoms as adults(Shehata , *et al.*, 2016).

Depression, anxiety, tics, and autism spectrum disorders can all co-occur with ADHD, as can oppositional defiant disorder (ODD), conduct disorder (CD), intellectual disability, learning difficulties, language disorders, sleep disorders, enuresis, and developmental motor coordination abnormalities. The co-occurrence patterns vary depending on the developmental stage(Castanho, *et al.*, 2020).

Children with ADHD have ten times the risk of CD or ODD, five times the risk of depression, and three times the risk of anxiety disorders as do kids without ADHD, based on a meta-analysis (Castanho, *et al.*, 2020).

## **2.4: ADHD Types:**

According to the fifth and final edition of the American Psychiatric Association's (APA) Diagnostic and Statistical Manual of Mental Disorders (DSM-V), the presentations of ADHD are classified as inattentive type, hyperactive/impulsive type, and mixed type (Carolina & Garrido, 2016). The following defines them:

- 1- An inattentive type is identified when there are fewer than (6) symptoms of hyperactivity or impulsivity but at least (6) symptoms of inattention that have lasted for at least six months.
- 2- The diagnosis of hyperactivity or impulsivity is made when at least (6) symptoms of hyperactivity or impulsivity have persisted for at least (6) months while fewer than six symptoms of inattention have.
- 3- If all three fundamental characteristics are present and six or more episodes of hyperactivity, impulsivity, or inattention have been noted for a period of six months or more, a mixed type is identified.

Individuals with ADHD may display both hyperactivity/impulsivity and inattention, or one symptom pattern may prevail ([Carolina & Garcia, 2016](#)).

### **2.5: Differences According to Developmental Stage:**

Since symptoms differ depending on age, the developmental stage must be taken into account while evaluating specific clinical presentations. There are inherent challenges in diagnosing ADHD in preschoolers, despite research suggesting that existing criteria may be utilized to do so even in children as young as 3 years old. It might be challenging to distinguish between age-normal hyperactive and impulsive behaviors and unsuitable ones because there is a certain amount of impulsivity and hyperactivity within this age range that is developmentally healthy. Inattention is also more challenging to measure because it cannot be subjected to significant environmental demands (such as focusing on a task for an extended period of time) ([Castanho, et al., 2020](#)).

Using data from many sources, it is possible to identify inattentive and hyperactive/impulsive symptoms in school-aged children, especially within the classroom, in a variety of combinations and to differing gradations of

severity. Late adolescence and adulthood are when ADHD symptoms tend to reduce, with hyperactive and impulsive Symptoms diminishing more than inattentive symptoms during development (Castanho, *et al.* 2020).

**Table2.2:** ADHD symptoms from childhood to maturity change over time

	Early Childhood	'primary school Years"	Adolescence	Adulthood
<b>Inattention</b>	<ul style="list-style-type: none"> <li>•Short play sequences (&lt;3) min.</li> <li>• Not listening</li> <li>• leaving tasks unfinished.</li> </ul>	<ul style="list-style-type: none"> <li>-Forgetful ;</li> <li>Disorganized ;</li> <li>Distracted environment.</li> <li>-Briefly activities (&lt;10) min.</li> <li>- premature change in behavior.</li> </ul>	<ul style="list-style-type: none"> <li>•Poor planning ahead.</li> <li>•Less persistence than peers (&lt;30) min.</li> <li>• absence of attention to a task's details.</li> </ul>	<ul style="list-style-type: none"> <li>-Lack of foresight.</li> <li>-Details not completed.</li> <li>-Appointments forgotten.</li> </ul>
<b>Hyperactivity</b>	Whirlwind	Agitated when calm is anticipated.	Fidgety	Personal experience of restlessness.
<b>Impulsivity</b>	<ul style="list-style-type: none"> <li>•Lack of risk perception (difficult to separate from oppositionality</li> <li>•Does not Listen.</li> </ul>	<ul style="list-style-type: none"> <li>•irresponsibly breaking the law.</li> <li>• accidents and peer intrusions.</li> <li>•acting inappropriately, interfering with other children, sputtering out responses.</li> </ul>	<ul style="list-style-type: none"> <li>•Reckless risk taking.</li> <li>• a lack of self-control.</li> </ul>	<ul style="list-style-type: none"> <li>-making.</li> <li>-Impatience.</li> <li>- Accidents involving motor vehicles and other vehicles.</li> <li>- Unwise and premature decision.</li> </ul>

(Castanho,*et al.*2020)

## **2.6: An attention deficit hyperactivity disorder risk factors:**

The risk elements for ADHD include low socioeconomic position, the male gender, marital or familial conflict, such as separation, carelessness, abuse, or parental deprivation, a little birth weight, and multiple forms of brain injuries. A family history of the condition, male relatives who are alcoholics or who have antisocial personality disorder, female relatives who have somatization disorder, and male relatives who have somatization disorder are additional risk factors ([Videbeck, 2020](#)).

## **2.7: Etiology of ADHD:**

Although the precise origin of attention deficit hyperactivity disorder is uncertain, various variables have been suggested, including family history, stress during pregnancy, nicotine use by the mother throughout her pregnancy, and low birth weight. Attention deficit hyperactivity disorder is a disorder with multiple causes. ADHD has been linked to a variety of psychological and behavioral illnesses, including dysfunction, urinary incontinence, obsessive-compulsive disorder, and anxiety disorder ([Arjmandi . et al. 2015](#)). Hereditary ADHD affects between 55% and 92% of people ([Senol, et al. 2018](#)).

Despite much research, it is still unclear what exactly causes ADHD. Brain anomalies could be related to cortical arousal, information processing, or maturation. It is likely the result of a combination of variables, including environmental pollutants, prenatal impacts, inheritance, and harm to the structure and functions of the brain. The chance of ADHD is increased by severe under-nutrition in the early years of life and prenatal exposure to alcohol, nicotine, and lead. Despite the fact that studies on the relationship between ADHD and dietary vitamins and sugar have been undertaken, the results have been contradictory. Important for maintaining continuous goal-

directed work, impulse control, attention, and organization, the frontal lobes appear to have a reduced metabolic

rate in the brains of ADHD patients. Furthermore, research has shown frontal brain atrophy in young adults with a history of ADHD in childhood, as well as lower frontal cortex blood perfusion in children with ADHD. Another study discovered that people with ADHD who were also ADHD parents used glucose less frequently in their frontal lobes. Despite the inconclusive results, the prospects for this research appear promising ([Videbeck, 2020](#)).

## **2.8: Predisposing Factors:**

The knowledge of the etiology of ADHD has significantly advanced during the last few years. According to the DSM-V (APA, 2013), ADHD is a neurodevelopmental condition. Accordingly, ADHD prevents the brain or central nervous system from growing and developing normally. The facts and research show that genetic and neurological factors, along with environmental factors (such as biological toxins and/or viruses), are the main causes of the condition, despite the fact that there are many factors that may result in the development of ADHD ([Carolina & Garrido, 2016](#)).

### **1-Biological Influences:**

**A- Inherited Factors:** First-degree relatives of people with ADHD have a five- to ten-fold higher likelihood of acquiring ADHD than people in the general population, showing that ADHD is a familial disorder. Twin studies have shown that both children and adults have a heritability of 70% to 80% ([Castanho, et al. 2020](#)).

ADHD inheritance has been a significant problem. Researchers have long documented the greater prevalence of mental illness in parents and other family members of children with ADHD. Siblings have a slightly

greater likelihood of developing ADHD than other immediate family members, at about 32%, ranging from 10% to 35%. That 57% of children who have a parent with ADHD are at risk is even more startling. Consequently, the biological relatives of children with ADHD are highly clustered with the disease, indicating unequivocally that this

issue has a genetic component. These higher incidences of problems have now been reported in samples of African Americans and females with ADHD, as opposed to boys (Singh, *et al.*, 2015).

**B. Biochemical Theory:** Although it is thought that certain neurotransmitters—specifically dopamine, norepinephrine, and potentially serotonin—are responsible for the symptoms of ADHD, More research is required to corroborate this. The symptoms of inattention, hyperactivity, impulsivity, irritability, and violence may be linked to abnormal levels of these neurotransmitters in those with the disorder (Townsend,2014).

**C. Prenatal, Perinatal, and Postnatal Factors:**

Hyperactive-impulsive behavior in children has been related to maternal smoking during pregnancy. When alcohol and other harmful substances are exposed intrauterine, they can have an effect on behavior. Foetal alcohol syndrome also includes hyperactivity, impulsivity, and inattention in addition to corporal problems. Perinatal variables that may be linked to ADHD include Premature birth and low birth weight are indicators of foetal distress. rapid or prolonged labor, perinatal hypoxia, and low Apgar scores. Examples of postnatal factors that have been related include cerebral palsy(CP) , convulsions, and other abnormalities of the central nervous system brought on by injury, infections, or other neurological diseases(Townsend,2014).

**2- Environmental-Influences:**

**A: Environmental Lead:** Children with elevated body lead levels continue to exhibit negative impacts on their cognitive and behavioral development, according to studies ([Townsend,2014](#)).

**B: Diet Factors:** Compared to children who are usually growing, children with ADHD exhibit dietary inadequacies, according to cross-sectional studies. These include, among others, fatty acids, zinc, and iron. Additionally, several studies show a direct link between the severity of ADHD symptoms and nutritional deficiencies. As of yet, there is not enough data to link these impairments to

ADHD, although they may be contributing factors. The inconsistent detection of nutritional inadequacies may be due to methodological variations among researchers. Furthermore, it's not obvious if nutritional deficits are mostly brought on by diet or whether certain kids with ADHD have a different way that the nutrients are absorbed. Despite this, many parents claim that their child's ADHD symptoms are made worse by their diet. Artificial food colorings have been shown to promote hyperactivity in both children with normal development and those who already have high levels of it, despite having a very small effect size. Therefore, dietary modification may be a promising strategy to reduce symptoms in some children([Tarver, et al., 2014](#)).

**3-Psychosocial Influences:** Some people may develop ADHD as a result of chaotic or disorganized surroundings, family disruptions, or both. When predisposed individuals suffer significant levels of psychosocial stress, parental mental illness, paternal crime, low socioeconomic position, living in poverty, growing up in an institution, or unstable foster care, they are more likely to acquire ADHD([Townsend,2014](#)).

## 2.9: Assessing of ADHD:

The aim of the evaluation is to determine, taking into consideration any accompanying psychiatric problems, whether or not the kid satisfies the criteria for a diagnosis of attention deficit hyperactivity disorder (ADHD). Clearly, this necessitates in-depth clinical knowledge of these disorders. Another objective of assessment is to identify the appropriate interventions to address the academic and social issues that have been identified (Berri and Al-Hroub, 2016).

Teachers are relied on by practitioners to provide information to aid in the diagnosis of ADHD because children spend the majority of their time in schools and interact with teachers in a variety of ways on a daily basis(Lasisi, *et al.*, 2017).

After a teacher reports a student who displays indications of ADHD, The first thing that needs to be done in the process of assessment is to get the opinion of

the teacher on how the student behaved during the class. If it is determined during the first stage of the evaluation process that there are major problems, the method of assessment will continue on to the second step. where a number of assessment procedures are utilized (Berri and Al-Hroub,2016).

If the child hasn't been diagnosed with ADHD yet, the primary teacher should be able to recommend the child for an assessment because children who display these behaviors find it difficult to deal with regimented school environments, their peers, and their teachers (Shehata , *et al.*, 2016).

Teachers are critical in evaluating student behavior and academic success on a daily basis, five days a week, when children spend the majority of their day in school. Teachers must possess a sufficient degree of

knowledge and understanding of the different diseases that might emerge during childhood and adolescence, including ADHD, in order to interact with pupils in an effective manner ([Gudmundsdottir, 2014](#)).

Children with ADHD frequently display behaviors that negatively affect their quality of life and self-esteem, including aggression, poor peer relationships, disobedience of orders, high risk-taking, an inability to recognize or follow social cues, low self-esteem, depression, and social, emotional, and cognitive issues ([Shehata . et al., 2016](#)).

### **2.10: Diagnosis of ADHD:**

Diagnosing disorders in children under the age of four is challenging since their regular behavior is more unexpected than that of older children. Frequently, the disorder is not identified until the child starts school. The school's teachers and parents cooperate in order to focus on the children's behavior, which helps identify this condition. The teacher employs a variety of fundamental tactics on a daily basis and can observe and understand child behaviors in the classroom and other school settings ([Al-amarei, et al., 2020](#)).

To help students with ADHD, it is imperative that they have their condition properly diagnosed. As teachers spend more time with children, they are trusted more than parents. Additionally, because they work with a variety of kids, instructors have a wide range of experience. Finally, the teacher can quickly spot any unusual behavior in a huge class of children ([Berri, and Al-Hroub, 2016](#)).

Three different types of procedures are used to make an ADHD diagnosis: histories of development, clinical procedures, observations and recordings. Teacher participation is integrated into the diagnostic procedure. Because the classroom environment necessitates quiet, seated activities that

lead to hyperactivity spiraling out of control, teacher observations might be thought of as more instructive than parent observations. The ADHD-related behaviors thus become obvious and quantifiable for those who are dealing with the youngster. The correct professionals can then diagnose a student using information gathered from teacher observations and checked checklists (Ballantine, 2015).

### **2.11: Methods of Prevention of ADHD:**

1. Primary Preventive: At this level, prevention aims to prevent morbidity or weakness from occurring, and this is accomplished through a set of measures that prevent an individual from being exposed to the morbidity or weakness, as well as aims to reduce the incidence of infection in the community (Al-amarei, et al., 2020). Public health activities, such as the use of seatbelts in cars, child immunizations, and other similar programs, are the normal way that prevention is accomplished. Campaigns to support maternal health during pregnancy, such as those that issue warnings against drinking and smoking, as well as initiatives to lessen exposure to environmental contaminants, such as lead and mercury, are among the primary prevention measures for ADHD and other neurodevelopmental disorders. Although these programs won't completely eliminate ADHD, they might reduce incidence rates (Halperin, et al., 2012).

2. Secondary Preventive: This level of prevention aims to lessen and prevent the development and exacerbation of morbidity or weakness and, as a result, reduces the proportion of people with disabilities in society (Al-amarei, et al. 2020). In addition, it tries to identify the dysfunction in its beginning stages, when it might be more controllable, to slow its development and/or alter its direction in order to reduce subsequent consequences. Secondary preventive interventions include mammography, heart stress testing, and colonoscopies

for the early detection of potentially serious diseases. Early diagnosis results in the execution of an action aimed at decreasing (or removing) the likelihood of catastrophic future consequences. This is performed prior to the onset of severe (or, in some cases, any) symptoms. This category encompasses earlier-start appropriate interventions like Early Intervention services for (at-risk) children (Halperin, et al., 2012).

3. Tertiary Preventive: employing treatments that are unlikely to be curative but will control or reduce adverse effects once the condition has manifested. Examples involve applying insulin to treat hyperglycemia, drug and alcohol rehabilitation centers, and, most pertinently, psycho-stimulants or parent education for kids with ADHD (Halperin, et al., 2012).

### **2.12: Teacher Knowledge of Attention Deficit /Hyperactivity Disorder:**

Knowledge can be gained through courses of study or instruction that one has acquired, from experience dealing with a subject or issue, or both. The knowledge of teachers will be discussed in terms of what they have learned in college and from their experience working in classrooms. Instructors who participated in their study reported receiving limited instruction on ADHD throughout of there before the syllabus, with educators in general education having received a little less training than their counterparts in special education. Working with ADHD students was strongly correlated with knowledge gained through experience, not just the number of years a person has been a teacher. Teachers' knowledge levels appear to significantly rise as they gain more experience teaching children with ADHD in their classroom (Ballantine, 2015).

Children with ADHD have significant problems in school with their behavior, social interaction, and academic achievement. Children with ADHD may struggle academically, emotionally, or socially. As a result, how

teachers engage with and manage kids with ADHD will be determined by their understanding of the illness. Since many of these students continue to experience symptoms into adolescence and maturity, early detection and intervention by teachers are crucial (Oluwaseun Morolake, *et. al.*, 2022).

In order to modify the curriculum, teaching methods, and classroom management techniques to support the academic, social, and behavioral success of such children, teachers must have a working understanding of ADHD. According to the diverse requirements of the students in the classroom, teachers must set up their environments (Oluwaseun Morolake, *et. al.*, 2022).

When students with ADHD attend class with their peers, teachers are faced with several difficulties. First, compared to children without ADHD, Youngsters with ADHD are more likely than other youngsters to interrupt peer learning and classroom lessons. Second, because of their poor social skills and high levels of anger and conflict, kids with ADHD find it difficult to interact with their peers, which makes them feel unwelcome; Third, 8% to 20% of children with ADHD have learning disabilities, 25% to 30% have anxiety and depression, and 55% of children with ADHD have oppositional defiant disorder or conduct disorder (Shehata *et al.*, 2016).

Academic and social performance of children with illness is greatly improved by teachers' understanding of how to cope with ADHD. It has been demonstrated that these students are negatively impacted by teachers who lack expertise in and comprehension of ADHD (Berri & Al-Hroub, 2016).

Teachers are anticipated to have a sufficient degree of awareness regarding the identification, referral, and management of children with ADHD since they

play a vital role in creating an environment that is supportive of these children's academic, social, and emotional success (Ibrahim, *et al.*2017).

The teachers' actions and attitudes toward students with ADHD are impacted by their awareness of the disorder. Teacher characteristics, such as their opinions on available treatments and the children of classroom tactics utilized, might have a significant impact on the academic outcomes of kids with ADHD. Additionally, teachers with little expertise in ADHD could overlook students who exhibit symptoms and might benefit from testing and treatment (Lasisi, *et al.*, 2017).

As a result, teachers who are unfamiliar with this illness will find it difficult to develop behavioral management plans. They will be able to modify classroom administration, modify coursework, and employ a range of teaching techniques to create a supportive environment for learning if they have a solid grasp of ADHD (Berri and Al-Hroub, 2016).

According to research supported by evidence, teachers who have received ADHD training are much more knowledgeable and have less prejudice and misinformation towards students who have the disorder (Hosseinnia, *et al.*, 2020).

Teachers must instruct students in behaviors that are consistent with organizational, social, and cultural standards in addition to teaching them the knowledge, skills, and abilities that are covered in the curriculum. Children with ADHD require more attention than their peers, as well as a series of organizational and structural changes, as well as increased teacher involvement (Safaan, *et al.*2017).

Teachers frequently see problems related to inattention as well as challenging and disruptive student behavior. Consequently, teachers have

considerable clinical knowledge and frequently make the first referrals for psychiatric testing (Gudmundsdottir, 2014).

Knowledge and understanding of the condition will affect how teachers engage with and manage students who have ADHD. Since many of these students continue to experience symptoms into adolescence and maturity, early detection and intervention by teachers are crucial (Oluwaseun Morolake, et. al., 2022).

In order to modify the curriculum, teaching methods, and classroom management techniques to support the academic, social, and behavioral success of such children, teachers must have a working understanding of ADHD. According to the diverse requirements of the students in the classroom, teachers must set up their environments (Oluwaseun Morolake, et. al., 2022).

Due to the behaviors displayed by students with ADHD in the classroom, teachers frequently have negative emotions toward them and underwent stress (Mchargue, 2019). So, Teachers should have a basic grasp of ADHD, so they can assist these students holistically as well as academically whenever they come across them in their classrooms. The children's resilience and self-esteem may be strengthened as a result, which may help the student adopt an optimistic outlook (Oluwaseun Morolake, et. al., 2022).

### **2.13: Teacher Attitudes toward Attention Deficit/ Hyperactivity Disorder:**

Another important consideration when using interventions is attitude. Individuals' expectations and associated ratings toward an object are represented by their attitudes. Attitude is the product of expectations multiplied by the corresponding individual ratings. A person's attitude is

made up of three parts: cognitive (beliefs they link with a particular item), affective (reactions they anticipate an object will elicit), and behavioral (past or projected future behaviors associated with an item). A good behavioral attitude frequently coexists with a good cognitive and affective attitude as an illustration of how the components interact ([Dort, et al., 2022](#)).

Teachers' understanding of and attitudes toward students with ADHD affect how they describe, refer to, instruct, and interact with these people ([Omunda, 2021](#)).

Positive or negative teacher attitudes have an impact on how they engage with pupils who have been diagnosed with ADHD. Teachers are less likely to implement the necessary interventions or adaptations that help kids with ADHD succeed in an ordinary classroom setting if they have negative opinions about this student demographic. Instead, teachers who have a positive attitude toward their ADHD pupils are more likely to be open to the available adjustments and interventions designed to boost the kids' conduct and academic achievement ([Omunda, 2021](#)).

Teachers sometimes feel the same despair that parents do, and daycare facilities or caregivers could turn away an ADHD child, adding to the rejection the child already feels ([Videbeck, 2020](#)).

Students with ADHD may become demotivated and self-conscious as a result of negative teacher attitudes ([Lasisi, et al., 2017](#)).

According to research, teachers have unfavorable views toward children with ADHD because of the challenges these children could experience. Teachers who were given a description of a child with an ADHD diagnosis had lower opinions of that child than they did of a child without an ADHD diagnosis in terms of behavior, intelligence, and personality. Similar to this, teachers rated students in vignettes with ADHD diagnoses as having

more serious concerns and acting in a more disruptive manner in the classroom ([Youssef, et al.2015](#)).

Teachers' knowledge and attitudes about students with ADHD are likely to have an impact on the way those kids behave in class and how well they learn. Due to the fact that instructors are frequently the first to notice whether a student has ADHD, a lack of understanding of the disorder may lead teachers to refer out too

many students or miss important behaviors that indicate a student needs more testing ([Mchargue, 2019](#)).

Researchers have discovered that teachers' attitudes and behaviors toward these students can be affected by their understanding of ADHD. When positive, the relationship between attitudes and behavior can possess a significant positive influence on student achievement; however, when teachers have stigmatizing beliefs about students with ADHD, those beliefs can have a negative impact on student achievement outcomes ([Mchargue,2019](#)).

#### **2.14: Factors Influencing Teachers' Attitudes and Knowledge about ADHD:**

Some of the elements that may influence teachers' Knowledge of and attitudes towards ADHD are age, gender, marital status, educational level, and teachers' degree of experience. Teachers' internet ADHD searches may potentially have an influence ([Dessie, et al.2021](#)).

The majority of research to date has concentrated on a few elements that may influence teachers' attitudes toward and knowledge of ADHD. They include years of experience, instruction in ADHD-specific treatments, and

expertise in raising children who have ADHD (Greenway, and Rees Edwards, 2020).

The research on how experience affects knowledge is contradictory. Stampoltzis and Antonopoulou (2013); Shroff *et al.* (2017) show no important association between service years and knowledge, while Mulholland *et al.* (2015) found that as teaching experience grew, so did knowledge of ADHD. This finding suggests that for many people, teaching experience does not necessarily translate into having more knowledge.

Highlight the beneficial association between teaching experience, teacher training, and teachers' knowledge and understanding of ADHD as a result of factors affecting teachers' knowledge (Berri and Al-Hroub, 2016).

The way teachers view their pupils may have an impact on how they interact with them, which in turn may have an impact on the academic results of the pupils. Thus, unfavorable teacher expectations can make students' issues worse and lead to self-fulfilling prophecies in which students' academic performance suffers, which in turn supports the instructors' initial unfavorable opinions of these students (Gudmundsdottir, 2014).

Teachers with intermediate to high understanding reported treating children with ADHD kinder and having more positive opinions about therapies (Greenway & Rees Edwards, 2020).

It makes sense that more teaching experience would result in exposure to a wider range of student characteristics and that this would raise knowledge of various children's diseases, such as ADHD (Gudmundsdottir, 2014).

## **2.15: Strategies for Home and School:**

In order to help the kid master appropriate behaviors, behavioral strategies are required. Ambient tactics used at home and at school can support the child's success in those environments. Effective therapy for ADHD must include educating parents and assisting them with parenting techniques. The use of time-outs, verbal reprimands, consistent praise, and rewards and consequences for behavior are all examples of effective strategies ([Videbeck, 2020](#)).

The goal of therapeutic play is to help children open up and share their thoughts and feelings through the use of play strategies. Play therapy, a psychoanalytic method employed by therapists, is not to be confused with this. Dramatic play involves simulating an anxious scenario, such as letting the child pretend to be a doctor and treat patients while using a stethoscope or other tools (a doll). Play activities that help kids discharge energy include running, pounding pegs, and working with modeling dough. Children can express themselves through creative play methods such as drawing images of their friends, family, and selves.

These methods are particularly helpful when kids lack the desire or ability to communicate verbally ([Videbeck, 2020](#)).

## **2.16: Application of the Nursing Process:**

### **2.16.1: Assessment:**

During the assessment, the nurse collects information from the child's parents, teachers, and childcare providers in addition to direct observation. In a focused one-on-one engagement with the nurse, the child may behave differently or be more subdued; therefore, assessing the child in a group of peers is more likely to offer relevant information. When discussing with

parents, it may be useful to use a checklist to help them focus their remarks on the specific symptoms or behaviors that their kid exhibits (Videbeck, 2020).

a. Past: Parents may have mentioned the infant's fussing and difficult conduct, or they might not have observed the child's hyperactive behavior until the child was a toddler or had begun daycare or school. The youngster most often struggles in every significant aspect of life, including school and play, and at home, he or she is probably overactive or even dangerous.

b. General Appearance and Motor Behavior: The child squirms and wiggles while attempting to sit motionless in a chair. He or she might flit from side to side of the room with little or no apparent reason. Although the child's speech is unimpaired, they are unable to carry on a conversation because they constantly interrupt, answer questions before they are finished, and pay no attention to what is being said. Topics of conversation may change quickly. The kid can come off as immature or be behind on milestones.

c. Mood and Affect: Mood is a variable factor that might lead to verbal outbursts or tantrums. It's typical to feel agitated, frustrated, and anxious. The child seems to have little control over voice or movement yet is clearly eager to keep moving or talking. When you try to direct the child's attention or change the subject, you can encounter resistance and resentment.

d. thought Process and Content: Generally speaking, this region remains unaffected, though assessment may be challenging based on the child's age, developmental stage, and amount of activity.

e. Sensorium and intellectual processes: Without any sensory or perceptual abnormalities, such as hallucinations, the child is attentive and oriented. Concentration and paying attention skills are severely hampered. A child's attention span might be as short as (2-3 seconds) if they have severe

ADHD, while it can be as long as 3 minutes in cases with lesser ADHD. A child with ADHD is frequently unable to finish tasks and is easily distracted.

f. Decision-making and insight: Children with ADHD frequently make poor decisions and don't stop to consider their actions. They could commit impulsive activities like dashing into the street or jumping off tall objects because they are unable to comprehend injury or risk. Even though it might be challenging to evaluate Insight and judgment in young children, children with ADHD show a greater low of judgment than other children their age. Most young kids with ADHD are completely not aware of how their behavior differ from other`s and are unable to understand how it hurts other people.

g. Self-concept: Although it may be challenging to evaluate this in a very young child, most kids with ADHD have low self-esteem. They frequently feel out of place and self-conscious since they struggle academically, may not make many friends, and may not get along with their families. They frequently perceive themselves as evil or stupid as a result of the unfavorable responses their behavior elicits from others.

h. Roles and Relationships: The child typically struggles in school both intellectually and socially. He or she frequently disrupts and intrudes on the family, causing parents and siblings to be upset. Parents may think that their child is being deliberately misbehaving, defiant, and stubborn until the condition is identified and addressed. Generally speaking, attempts at discipline are only partially successful; in some instances, the youngster becomes physically uncontrollable and even hits the parents or wrecks family property.

**2.16.2: Nursing Diagnoses:**

a) Impaired social interaction:

Definition: an inadequate, excessive, or inefficient level of social exchange (NANDA-I, 2012).

Related to (Negative role models, a dysfunctional family structure, disordered or chaotic settings, child abuse or neglect, an inadequate parent-child relationship).

b) Ineffective coping:

Definition: Inability to use existing resources, make poor decisions about practiced responses, or create a reliable assessment of the pressures (NANDA-I, 2012).

Related to (Environmental crisis, maturational crisis, insufficient coping mechanisms, insufficient support systems; fetal discomfort, early birth, or accelerated or protracted labor-related neurological changes; low confidence; broken family structure; settings that are chaotic or disorganized; abuse or neglect of children).

c) Low self-esteem:

Definition: negative self-evaluation, sentiments, or perceptions of one's own skills (NANDA-I, 2012).

All of these characteristics lead to a dysfunctional family structure, including a lack of positive role models, rejection, negative reinforcement, poor parent-child connections, an unruly home life, and instances of abuse or neglect.

d) Anxiety (moderate to severe):

Definition: apprehension brought on by the prospect of danger; a vague, unpleasant fear or feeling of discomfort followed by an autonomic reaction, the source of which is frequently ambiguous or unknown to the individual. It acts as a

warning of impending danger, enabling the person to act to address the problem ([NANDA-I, 2012](#)).

Related to (Crisis of development and circumstance, family discord, a threat to one's self-concept that is actual or perceived, the threat of death, unfulfilled demands, and fears of failure; poor relationships between parents and children; and the youngster has always had an easily disturbed disposition).

### **2.16.3: Intervention:**

Nurses and other medical specialists, teachers, parents, and other caregivers can apply the interventions outlined in this section and adapt them to a variety of settings ([Videbeck, 2020](#)).

a) Safety: is always a top consideration, both for the child and for other people. The first thing to do if the child is engaging in a potentially hazardous activity is to put a halt to it. If the child is racing into the street or attempting to jump from a height, it may be necessary to physically intervene. A youngster who is engaged in a risky activity has a limited capacity for attention and listening, so it is doubtful that you would be successful in trying to talk to or reason with them. The adult should speak with the child directly about the expectations for safe behavior once the situation is over and they are both safe. For a while, close supervision might be necessary to guarantee compliance and prevent harm.

b) **Improving Role Performance:** It is crucial to provide the youngster with detailed praise when he or she satisfies specified expectations. By doing this, you may offer your child a sense of success while reinforcing desired behaviors.

c) **Simplifying Instructions:** Adults must first get a child's entire attention before starting any work. It is beneficial to make eye contact with the child and stand close to him or her. The adult should explain to the youngster what has to be done and, if necessary, divide the task into smaller pieces.

d) **Supporting a Structured Daily Routine:**

A daily routine with structure is beneficial. If there is a consistent schedule for these daily rituals, the kid will finish waking up; dressing; doing homework; playing; going to bed; and other tasks much more quickly. If activity periods are arbitrary or vary from day to day, children with ADHD are less likely to achieve expectations because they are less able to adapt to changes.

#### **2.16.4: Evaluation:**

Positive therapy outcomes are probably seen by parents and teachers before children do. If the child responds to them, medications can frequently reduce impulsivity and hyperactivity while also increasing attention quite quickly. Academic accomplishment, peer relationships, and increased sociability all improve more gradually, but are still feasible with good treatment ([Videbeck, 2020](#)).

#### **2.17: Previous Studies:**

2.20.1: Study of Al-Amarei (2020). „Assessment the knowledge and attitudes of elementary school teachers in Al-Najaf city regarding an attention deficit/hyperactivity disorders,, is a fine place to start if you're looking for a new hobby. In addition to establishing the relationship between

instructors' expertise and demographical data. According to the findings of the study, primary school teachers had insufficient awareness of and a negative attitude towards ADHD kids. Furthermore, the results show a substantial positive link between instructors' knowledge and attitudes towards children with ADHD. The sample's demographic factors, such as age, education level, years of experience, and primary information sources, also have a substantial link to its level of knowledge.

2.20.2: Study of Ahmed Sultan Al-Wily, et al. (2020). "Teachers knowledge regarding attention-deficit hyperactivity disorder among pupils at elementary schools in Mosul City". The study sought to measure instructors' knowledge of students with attention deficit hyperactivity disorder in Mosul primary schools.

According to the findings of this study, teachers in Mosul's primary schools lack relevant and sufficient understanding concerning children with attention deficit hyperactivity disorder. There is no substantial association between instructors' knowledge and any demographic factors, with the exception of training courses.

2.20.3: Study of Alfageer, et al. (2018) "Knowledge and Attitude of Male Primary School Teachers about Attention Deficit and Hyperactivity Disorder in Riyadh, Saudi Arabia". The study's goal was to assess male primary school teachers' knowledge, sources of knowledge, and attitudes towards attention deficit and hyperactivity disorder (ADHD). According to the findings, two-thirds of the teachers in our poll were aware of ADHD. Those who have taken a course or dealt with a child with ADHD are far more knowledgeable about it. The majority of teachers learned about the disease from various sources, including official education courses, the internet, and/or social media. There was a strong relationship between teachers' knowledge and attitudes.

2.20.4: Study of Safaan, N, et al. (2017). „Teachers' knowledge about attention deficit hyperactivity disorder among primary school children,,. The study sought to determine how much primary school teachers understood about attention deficit hyperactivity disorder. This study found that teachers had very little or insufficient knowledge about attention deficit hyperactivity disorder. Additionally, the majority of teachers did not enrol in any training programmes during their time in college or attend an in-service workshop on attention deficit hyperactivity disorder.

2.20.5: Study of Mirza N, et al. (2017). "Knowledge, Attitude, and Practices Towards Attention Deficit Hyperactivity Disorder Among Private Elementary School Teachers in Karachi, Pakistan". The study sought to ascertain primary school teachers' knowledge, attitudes, and practices regarding attention deficit and hyperactivity disorder (ADHD) in Gulshan-e-hadeed Karachi. This study showed that adequate knowledge, a positive attitude, and good practice regarding ADHD among primary school teachers play a significant role in the detection, prevention, and screening of these children and prevent them from suffering future consequences.

2.20.6: Study of Khademi M, et al. (2016), Knowledge and Attitude of Primary School Teachers in Tehran, Iran, Towards ADHD and SLD, the study sought to assess primary school teachers' knowledge and attitudes toward attention deficit hyperactivity disorder (ADHD) and specific learning disability (SLD) in Tehran, Iran. According to the findings of this study, primary school instructors have a general awareness of and acceptance of SLD and ADHD. There was also a considerable association between the participants' knowledge and attitudes towards the two disorders. Most teachers chose to inform parents rather than refer students with ADHD or SLD to specialists. In contrast to other research' findings, the study's findings primarily indicate average knowledge and attitude ratings for both ADHD and SLD.

2.20.7: Youssef M. et al. (2015) study. „Knowledge of and Attitudes Toward ADHD Among Teachers: Insights From a Caribbean Nation,,. The study's objective was to evaluate teachers' attitudes and knowledge about ADHD in Trinidad and Tobago, a little island developing state in the Caribbean. This study demonstrated how little teachers knew about ADHD. There is no evidence to suggest that prevalence rates are lower in the Caribbean than elsewhere in the world, despite the severe absence of epidemiological data regarding ADHD in the region.

2.20.8: Al-Omari, Al-Motlaq, and Al-Modallal (2015) research, Knowledge of and attitude toward ADHD among primary school teachers in Jordan, the study in Jordan sought to investigate primary school teachers' knowledge and attitudes toward students with ADHD. This study found that teachers lacked a comprehensive understanding of the origins and treatment of ADHD. The attitudes of teachers towards kids with ADHD were also less favorable than anticipated, and many myths about the causes and therapies for ADHD emerged. These results have been affected by the dearth of ADHD research, the dearth of pre-service teacher training in the area, and the almost complete lack of institutional and unofficial support for children with ADHD.

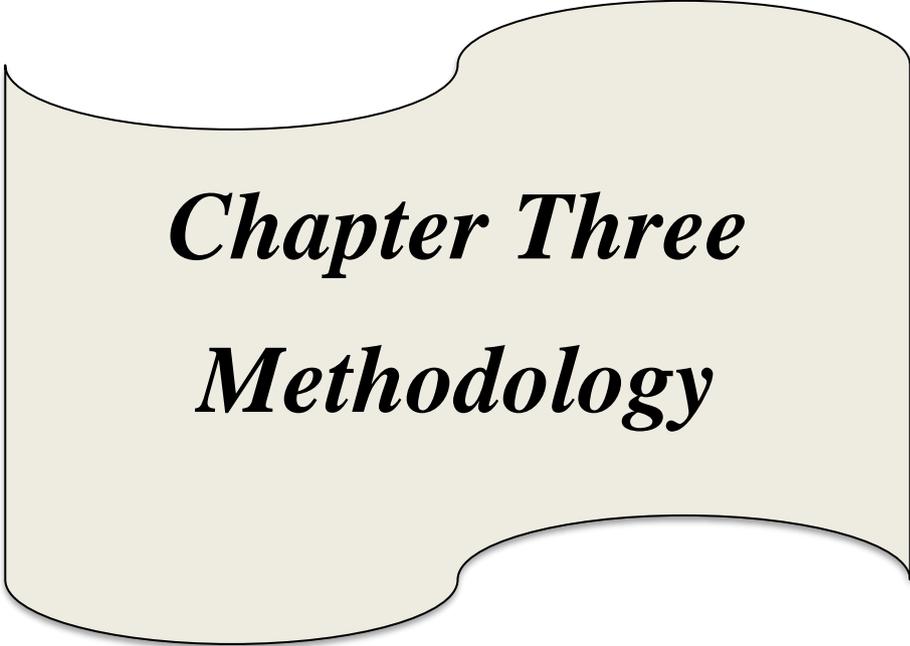
2.20.9: Jimoh, M. (2014) study. „Knowledge and attitudes towards attention deficit hyperactivity disorder among primary school teachers in Lagos State, Nigeria,,. The purpose of the study was to find out whether primary school teachers' educational background affected their knowledge of and attitudes towards students with ADHD, how much their years of work experience affected their knowledge of and attitudes towards students with ADHD, and whether teachers who had received training on ADHD had different perceptions of their knowledge of and attitudes towards students with ADHD than those who had not. According to this study, teachers in elementary schools exhibited negative attitudes towards pupils with ADHD and lacked appropriate awareness of the condition. Further research revealed that

teachers' educational backgrounds, length of service, and exposure to training on ADHD all had a substantial impact on how knowledgeable they believed themselves to be about and how they felt about students with ADHD.

2.20.10: Study of Rodrigo M., et al. (2011). The knowledge and attitude of primary school teachers in Sri Lanka towards childhood attention deficit hyperactivity disorder,, . The purpose of the study was to evaluate primary school teachers in the Gampaha District's knowledge about and attitudes towards attention deficit hyperactivity disorder (ADHD). This study demonstrated the need for primary school teachers to gain a better understanding of ADHD and how to treat it.

2.20.11: Study of Perold M, et al. (2010) The knowledge and misconceptions of primary school teachers about attention deficit hyperactivity disorder (ADHD). The study's objective was to evaluate the misconceptions and understandings of primary school teachers in locations outside the Cape Town Metropolitan Area. This study demonstrated how little teachers knew about ADHD.

2.20.12: Study of Kleynhans, S. (2005). „Primary School Teachers' Knowledge and Misperceptions of Attention-Deficit/Hyperactivity Disorder (ADHD),,. The study aimed to investigate teachers' knowledge and misperceptions of ADHD. This study showed the knowledge of ADHD among primary school teachers was low.



***Chapter Three***

***Methodology***

## **Chapter Three**

### **Methodology**

This chapter deals with all approved methodological and procedural principles in an organized manner to achieve the study's objectives.

#### **3.1. The study Design:**

Descriptive cross-sectional design determined to study the Knowledge and Attitudes among elementary school teachers regarding an attention deficit/ hyperactivity disorder in Babylon province started from 19<sup>th</sup> of September 2022 to 15<sup>th</sup> of May 2023.

#### **3.2. Administrative Agreements:**

The formal administrative agreements have been achieved before data collection, which required for conducting the study are presented in Appendix (A) as follows:

- 1-** The initial agreement was obtained from the University of Babylon / College of Nursing/ Higher Studies committee after protocol presentation.
- 2-** An ethical committee of the Department of Mental Health Nursing at Babylon University / College of Nursing has approved the protocol of the study.
- 3-** A formal requisition was sent to the Babylon Education Directorate for the agreement.
- 4-** An official agreement was attained from the Department of Developing and Training/branch of studies and educational researches.

5-Every primary school principal were interviewed to explain the nature, importance, and objective of the study and then obtain permission from the principal to allow teachers to participate in the study.

### **3.3. Ethical Considerations through the Data Collection:**

Ethical Considerations are essential to protect the rights of persons regarding the collected data confidentiality and promote the professional study conducted; the following ethical issues are applied depending on:

1-Voluntary Agreement of the participants.

2 -Respect the exclusiveness of the participants

3-Phrasing the questions is accessible and understandable according to the educational level of Teachers and cultural background.

### **3.4. Study Setting:**

The current study took place at government primary schools in the province of Babylon from 1<sup>st</sup> March 2023 to 15<sup>th</sup> April 2023. the total number of public primary schools in the Al-Qassim District of the Babylon Governorate (103).

Twenty schools were chosen from "probability" a systematic sampling of the 103 Department of Study Schools in the Al-Qassim District of the Babylon Governorate. 225 samples were collected from "nonprobability" the convenience sampling division of primary school teachers for the research. (Appendix A).

### **3.5. Sample of the Study:**

A total of 225 primary school teachers were selected by a "non-probability" (convenience) sampling from "candidate schools" to study the

knowledge and attitudes among primary school teachers regarding an attention deficit/hyperactivity disorder in Babylon governorate.

To calculate the sample size, Stephen Thompson's equation was used:

$$n = \frac{N \times p(1-p)}{\left[ \left[ N - 1 \times \left( d^2 \div z^2 \right) \right] + p(1-p) \right]}$$

n=Sample size = 250 , N=Total society size =750

d=error percentage = (0.05) , P=percentage of availability of the character and

objectivity = (0.5) ,Z=the corresponding standard class of significance 95% =(1.96).

**A. Inclusion criteria:**

- 1- Government primary school teachers in Al-Qassim District in Babylon governorate.
- 2- Have at least one year of experience as a teacher in primary school.

**B. Exclusion criteria:**

- 1- Private primary school teachers in Al-Qassim District in Babylon governorate.
- 2- The teachers with less than one year of primary school teaching experience.

Distribution of Study Sample at governmental primary schools in the Al-Qassim area in Babylon Governorate.

**Table 3.1. Primary Schools in Al- Qassim Area of Babylon Province.**

name of the educational institution	N:	N:	name of the educational institution	N	N
	Male	Female		Male	Female
Al-Bairaq (Boys)	6	10	Doha (Girls)	0	10

Zenobia (Girls)	0	22	Martyr Fadama Asal Al Janabi (Mixed)	4	1
Madaen (Boys)	7	2	Al-Huda (Mixed)	9	0
Ibn Al-Atheer (Mixed)	6	6	Al-Hussainiya (Mixed)	10	1
Al Hadi (Boys)	5	10	Najaf (Mixed)	7	0
Madaen (Girls)	0	6	Roboua Al Watan (Boys)	9	2
Al-Firdous(Girls)	0	20	Zamzam (Mixed)	6	3
Gold Meadows (Mixed)	6	4	Al-Batoul (Girls)	0	8
Majd Al-Islam (Boys)	5	4	Ibrahimia (Boys)	8	3
Al-Naqaa (Mixed)	7	10	Mubahala (Mixed)	5	3
Total= 225	M=100	F=125			

### 3.6. The Study Instrument:

For the purpose of achieving study objectives, the questionnaire has been constructed and developed as a tool for data collection. Such development was employed through an extensive review of studies and books which related to the study phenomenon.

The final copy of the study instrument consists of the following parts:

**Part 1: Covering letters to obtain the subjects' agreements.**

**Part 2: Socio- Demographic Data: - Consist of two parts:**

- A) **Demographic data:** This part consists of (**8items**) about primary school teachers' include sex, age, place of residence, marriage status, and level of education, working experience, teaching grade, teaching specialty.
- B) **Sources of information about ADHD:** this part consists of (**7items**) includes source of information primary school teachers towards ADHD.

**Part 3: Primary school teachers' knowledge about the ADHD.** The knowledge scale consists of (**30 items**) distributed into three main domains as the followings:

- A. Domain-1:(**15items**) about general information.
- B. Domain 2: (**8items**), about signs/symptoms&diagnosis.
- C. Domain 3: (**7items**) about treatment.

**Part 4: Primary school teachers' attitude about ADHD.** This part consists of (**20 items**).

### **3.7. Rating and Scoring:**

The items were classified and scored according to the patterns below:

1-Two scales are used in the knowledge for rating an items. The items rated as (Yes and No), the levels of the scale scored as (0) for Yes, and (1) for No. (All items are negative).

2-Five Likert scales are used in attitudes of elementary school teachers regarding an attention deficit/ hyperactivity disorder for rating those items [neutral , agree, strongly-agree, disagree, and strongly-disagree], the scale's levels were rated as follows {(1)= for "strongly-agree" , (2) = for agree , (3) = for neutral , (4) = for "disagree" , (5) = for strongly-disagree}. (an items is all negative).

To determine the score of primary school Teachers knowledge, the researcher divided the scales into two levels and to determine the score of primary school teachers attitudes, the researcher divided the scales into five levels, as the following:

**Table.3.2.the Rating Scales and Scoring.**

Scales	Score	Grade	<b>All items are Negative</b>
Knowledge	0-0.66	Poor	
	0.67-1.33	Fair	
	1.34-2	Good	
Attitudes	1-2.33	Negative	
	2.34-3.66	Neutral	
	3.67-5	Positive	

Range of scores calculated as follows:

$$\begin{aligned}
 \text{Range of score} &= \frac{\text{Max}(M.S) - \text{Min}(m.s)}{\text{Rating}} = \frac{5-1}{5} = \mathbf{0.80 \text{ (five likert scale)}} \\
 &= \frac{2-1}{2} = \mathbf{0.50 \text{ (two likert scale)}}
 \end{aligned}$$

### **3.8. Validity of the Instrument of Study:**

The questionnaire validated through exposure of the tool to (15) specialists and expert, from different fields, with no less than (10) years of experience in investigating the specificity, validity and adequacy of the questionnaire to assess the concept of interest, All of its recommendations have been taken into account. A preliminary print of the questionnaire was developed and sent to those (15) experts . these15 experts from different specialties related to the field of the study. they were:

[2] A nursing faculty expert from Baghdad University.

[1] A nursing faculty expert from Kufa University.

[7] Nursing faculty expert from the University of Babylon.

[2] Expert from the faculty of medicine at Babylon University.

[2] Expert from Babylon University's faculty of basic education.

[1] A nursing faculty expert from Maysan University.

### **3.9. Pilot of the Study:**

The pilot study is carried out on (25) primary school teachers 10% of target population (250) from [2] primary school (first school for boys' students and the second school for girls' students) in the Qassim area in the Babylon Province, in which they were (12) female teachers and (13) male teachers, from the period 15-16 February 2023. Subjects who will participate in the pilot study will be excluded from the actual Sample of this study.

The pilot study aimed to address the following:

1. The tool's reliability.
2. An estimate of the time needed to collect the data.
3. Identification of barriers which may not be counted during the data collection process.
4. Identification of the accuracy and appropriateness of the sampling.

The pilot study result was:

- 1 .The tool is reliable .
- 2 .The questionnaire's items are clear and can be understood easily.

3 .The period required to complete the instrument's questions ranged from (20-25) minutes.

### 3.10. Study Instrument Reliability:

The research instrument's dependability is assessed through reliability. Table (3.3) displays the calculated Cronbach's alpha and the results of an internal consistency method. findings that were computed regarding the information gathered in accordance with the analyzed questionnaire. A good reliability coefficient is above 70.

**Table 3.3. Alpha Cronbach of Study Instrument's Items:(n=25)**

No	Variables	Items	Minimum accepted level	Alpha Cronbach	Assessment
1-	Knowledge	30	0.70	0.87	Accepted
2-	Attitudes	20	0.70	0.81	Accepted
3-	Total	50	0.70	0.84	Accepted

### 3.11. Methods of Data Collection:

Data were collected after acquiring an official agreement from the department of development and a training / branch of studies and educational research in Babylon education directorate (Appendix A), through using research instruments in the period from 1st march to 15th April 2023, primary schools used as an area to gather information from the primary school teachers. Part of data gathered as a face-to-face interview with primary school teachers after describing the goals and importance of the research and assure those who the data taken shall be reserving confidentially. While the other part collected by giving the questionnaires to the manager of primary school as an intermediary for delivering it to the primary school teachers and returned it back to the manager. The duration of

answering the questionnaire takes approximately (20-25) minutes. Total data collected at the end were (225) out of (260) because few of the participants did not complete all parts of questionnaire and those participants excluded from the study sample.

### 3.12. Statistics Analysis:

To arrive at results, create linkages between variables, and produce concluding outcomes coming from a series of statistical tests, the researcher used the SPSS- version 20 and Microsoft Excel (2010) programs to statistically analyze the information acquired from the study sample.

#### 3.12.1. Descriptive approach:

Descriptive statistics use a range of mathematical and statistical methods to statistically describe a dataset using tables and charts. Descriptive statistics are used to display and describe data in a way that makes it more easily discernible and understandable for users to analyze, summarize, and categorize it. the analysis carried out using:

- A. The statistical tables "Frequency (No.) and Percent (%)"
- B. Averaging the results M.s. and the overall average score (M±).

$$\text{Total mean of scores} = \frac{\text{Maximum total scores} - \text{mimumum total scores}}{\text{Levels}}$$

**For Knowledge Outcomes**

**[Poor= 0-10; Fair= 10.1-20; Good= 20.1-30]**

**For Attitudes Outcomes**

**[Negative= 20-46.66; Neutral= 46.67-73.33; Positive= 73.34-100]**

C. Test for Standard Deviation ( $\pm$ SD).

D. It makes use of the "Cronbach alpha" correlational coefficient to calculate the internal consistency of the research instrument.

**3.12.2. Inferential approach:**

**1- Analysis of Variance (ANOVA):**

It is employed (a variance test when the mean parameter fluctuates) to promote equality of means.

Source of variance	Sum of square	d.f	Mean square	F
Between Groups	$\frac{(\sum xP)^2}{n} - \frac{(\sum xP)^2}{N}$	$df_b = K-1$	$\frac{MSB}{MSW}$	
Within Groups	$\frac{SS_w = \sum (\sum xP)^2}{N} - \frac{(\sum xP)^2}{N}$	$df_w = N-k$	$\frac{SS_w}{DF_w}$	$\frac{MSB}{MSW}$
Total	$\frac{SS_t = \sum (\sum xP)^2}{N} - \frac{(\sum xP)^2}{N}$	$df_t = N-1$		

*P-value ( $\leq 0.05$ )*

**2.Independent Sample t-test:**

The t-test compares the averages of two distinct categories in the sample that are unrelated. to determine whether there is statistical evidence supporting a significant difference between the linked population means.

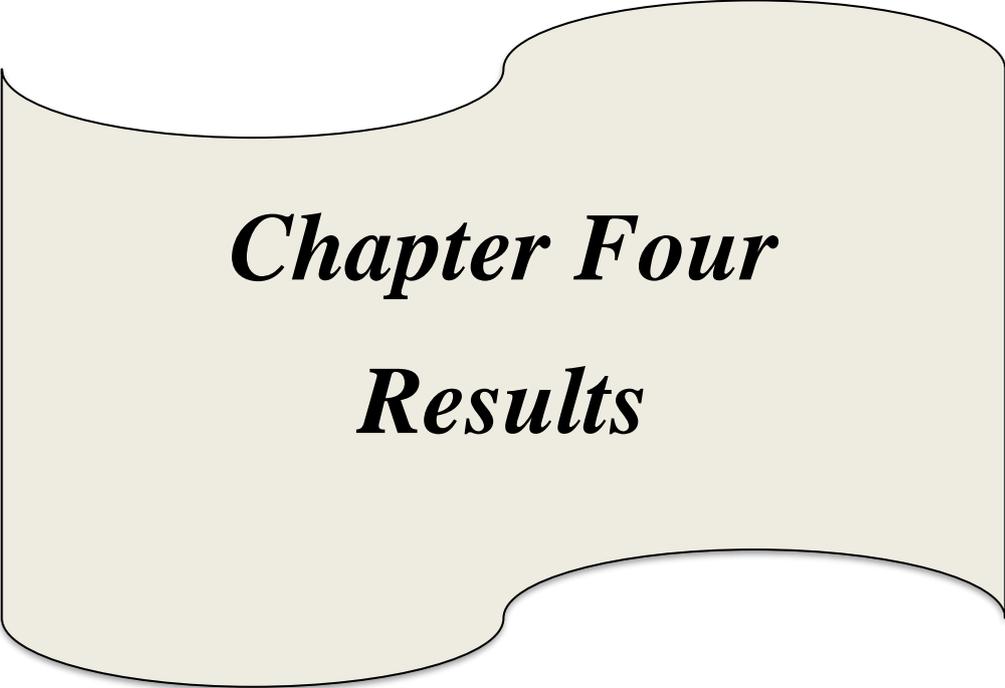
**3. Pearson's Correlation Coefficient:**

This test is used for correlate between studied variable.

**3.13. Limitations of the Study:**

Over the duration of the research period, the scholar encountered a variety of difficulties, including:

1. Difficulty in locating primary schools due to their distance from one another and the absence of reliable locating information.
2. Data collection period was too short in government primary schools.
3. Due to social customs and security concerns, the majority of primary school administrators refused to work with the researcher.



***Chapter Four***

***Results***

## Chapter Four

### Results

Based on stated objectives the following tables and figures:

#### 4-1. Characteristics of Study Sample:

**Table 4-1.1. Socio-demographic information about the sample(N=225):**

SDVs	Classification	No.	%
Age	30-39 years	136	60.4
	40-49 years	52	23.1
	50 and older	37	16.4
	<b>39.19 ± 8.16</b>		
Sex	Male	100	44.4
	Female	125	55.6
Residents	Urban	128	56.9
	Rural	97	43.1
Marital status	Single	25	11.1
	Married	194	86.2
	Divorced	4	1.8
	Widow	2	0.9
Education level	Diploma	74	32.9
	Bachelors	142	63.1
	Post-graduate	9	4.0
Work experiences	<5 years	83	36.9
	5-10 years	12	5.3
	>10 years	130	57.8
Teaching stage	1 <sup>st</sup>	22	9.8
	2 <sup>nd</sup>	25	11.1
	3 <sup>rd</sup>	35	15.6
	4 <sup>th</sup>	36	16.0
	5 <sup>th</sup>	55	24.4
	6 <sup>th</sup>	52	23.1
Teaching specialist	Islamic	34	15.1
	Arabic	61	27.1
	English	25	11.1
	Math	44	19.6
	Sociology	26	11.6
	Science	28	12.4
	Psychology	7	3.1

No.= Number; %= Percentage

The socio-demographic characteristics resulted in the participants' median age of 39.19 (S.D. = 8.16) years among the age group 30-39 years

being mostly 60.4%. In regards to sex, most of the participants were female (55.6%). Concerning residents, more than half were in urban areas (56.9 %).

outcomes pertaining to marital status: 86.2% of participants were married. Considering educational attainment, bachelor's (B.Sc.) degrees predominated among the study sample (63.1%). Regarding work experience, one-third expressed >10 years. Most of them teach 5th grade (24.4%) and specialized Arabic (27.1%).

**Table 4-1.2. Distribution of Study Sample by their Sources of Information-related ADHD (N=225):**

Information-related	Classification	No.	%
Do you have enough information about ADHD?	No	206	<b>91.6</b>
	Yes	19	8.4
Have you ever heard or read about ADHD?	No	189	<b>84.0</b>
	Yes	36	16.0
Do you have experience working with ADHD students?	No	163	<b>72.4</b>
	Yes	62	27.6
Do you attended courses about ADHD?	No	211	<b>93.8</b>
	Yes	14	6.2
Do you have a child with ADHD?	No	216	<b>96.0</b>
	Yes	9	4.0
What action would you take in Case of ADHD?	Referring to psychiatrist	8	3.6
	Referring to psychologist	15	6.7
	Informing the Parents	76	33.8
	Informing the School Authorities	125	<b>55.6</b>
	No action	1	0.4
Sources of Information	Books and articles professional.	13	5.8
	Media (radio, T.V, newspaper, magazines, etc.).	25	11.1
	Internet	114	<b>50.7</b>
	Conferences and in-service trainings.	13	5.8
	Psychiatrists and psychologists are experts.	8	3.6
	Others (like friends, family, etc.)	52	23.1

The outcomes of this table demonstrate that most primary school teachers (91.6%) have adequate knowledge about ADHD, (84%) were not read about ADHD, (72.4%) were not taught to students with ADHD, majority of (93.8%) were not attended courses about ADHD, minority of (96%) were not have a child with ADHD, in case of ADHD, (55.6%) were only informing the school authorities. The internet were the most common sources of information about ADHD.

#### 4-2. Primary School Teachers Knowledge towards an Attention Deficit/Hyperactivity Disorder.

**Table4-2-1. Knowledge of Primary School Teachers about General Information of ADHD (N=225):**

List	General information Items	Rating	No.	%	M.s	Ass.
1	Most estimates indicate that 15% of children of school age suffer from attention deficit/hyperactivity disorder.	Yes	193	85.8	0.14	Poor
		No	32	14.2		
2	Children with AD/HD tend to be more obedient to their mothers than to their fathers.	Yes	152	67.6	0.32	Poor
		No	73	32.4		
3	To be diagnosed with ADHD, a child's symptoms must have appeared before the age of seven.	Yes	190	84.4	0.16	Poor
		No	35	15.6		
4	AD/HD is less common in children with ADHD's first-degree biological relatives (mother and father) than in the general population.	Yes	143	63.6	0.36	Poor
		No	82	36.4		
5	Children with AD/HD experience depression symptoms less commonly than children without AD/HD.	Yes	164	72.9	0.27	Poor
		No	61	27.1		
6	Most ADHD children outgrow their symptoms by puberty and go on to function normally in adulthood.	Yes	171	76.0	0.24	Poor
		No	54	24.0		
7	The symptoms of AD/HD can typically be decreased by limiting diet-related intake of sugar or dietary additives.	Yes	177	78.7	0.21	Poor
		No	48	21.3		
8	Children with AD/HD typically struggle more in unfamiliar situations than they do in ones they are familiar with.	Yes	196	87.1	0.13	Poor
		No	29	12.9		
9	Doctors can recognize particular physical characteristics. When diagnosing ADHD, medical practitioners (including pediatricians) can spot specific physical traits.	Yes	91	40.4	0.60	Poor
		No	134	59.6		
10	ADHD is equally prevalent in boys and girls among school-age children.	Yes	120	53.3	0.47	Poor
		No	105	46.7		
11	Children with AD/HD are simpler to distinguish from typically developing children when playing freely as opposed to in a classroom setting.	Yes	179	79.6	0.20	Poor
		No	46	20.4		
12	Most children with ADHD have some degree of good academic achievement in their early years of school.	Yes	72	32.0	0.68	Fair
		No	153	68.0		
13	Children with ADHD do not have a biological or	Yes	186	82.7	0.17	Poor

	genetic predisposition.	No	39	17.3		
14	Children with ADHD often come from a disorganized and inappropriate home environment	Yes	129	57.3	0.43	Poor
		No	96	42.7		
15	It isn't possible an adult to be diagnosed with ADHD	Yes	134	59.6	0.40	Poor
		No	91	40.4		

Level of evaluation [Poor = 0-0.66; Fair =0.67-1.33; Good=1.34-2]

According to the statistical mean, the table (4.2.1) showed that primary school teachers had poor knowledge of general information about AD/HD, As shown by the lack of mean scores (M.s. 0.66), with an exception of item number 12, where the responses were fair.

**Table4-2-2. Knowledge of Primary School Teachers about Signs and Symptoms of ADHD(N=225):**

List	Signs & Symptoms of ADHD Items	Rating	No.	%	M.s	Ass.
1	Extraneous stimuli do not divert kids with ADHD.	Yes	137	60.9	0.39	Poor
		No	88	39.1		
2	Physically abusing other individuals is one of the signs that a youngster has AD/HD.	Yes	171	76.0	0.24	Poor
		No	54	24.0		
3	Kids with ADHD frequently fidget or wriggle around in their seats.	Yes	205	91.1	0.09	Poor
		No	20	8.9		
4	It is common for individuals with AD/HD to have inflated self-esteem or a grandiose sense of self.	Yes	153	68.0	0.32	Poor
		No	72	32.0		
5	Children with AD/HD have a history of thieving or causing damage to the property of others.	Yes	131	58.2	0.42	Poor
		No	94	41.8		
6	One cluster of symptoms—either inattention or hyperactivity—is suggested by current knowledge of AD/HD.	Yes	178	79.1	0.21	Poor
		No	47	20.9		
7	A kid must display significant symptoms in only one environment (for example, at home or school) in order to be diagnosed with ADHD.	Yes	147	65.3	0.35	Poor
		No	78	34.7		
8	The organization of chores and activities is not a problem for children with AD/HD.	Yes	105	46.7	0.53	Poor
		No	120	53.3		

Level of evaluation [Poor= 0-0.66; Fair =0.67-1.33; Good=1.34-2]

According to the statistical mean, the table (4.2.2) showed that primary school teachers had poor knowledge of the signs and symptoms of ADHD, as evidenced by low mean scores (M.s.0.66) at all examined scale items.

**Table4-2-3. Knowledge of Primary School Teachers' about the Treatment of ADHD(N=225):**

List	Treatment of ADHD Items	Rating	No.	%	M.s	Ass.
1	Individual psychotherapy is typically adequate for treating the majority of children with AD/HD.	Yes	172	76.4	0.24	Poor
		No	53	23.6		
2	AD/HD is not a serious problem and does not need to be management.	Yes	118	52.4	0.48	Poor
		No	107	47.6		
3	Teachers should be unaware of ADHD and students with ADHD in the classroom.	Yes	108	48.0	0.52	Poor
		No	117	52.0		
4	Training for parents and teachers to manage an ADHD child is frequently useless when combined with medication.	Yes	145	64.4	0.36	Poor
		No	80	35.6		
5	Treatments for AD/HD that place the greatest emphasis on punishment have been found to be the most successful in lowering ADHD symptoms.	Yes	131	58.2	0.42	Poor
		No	94	41.8		
6	According to recent studies, poor parenting practices are a major contributing factor to AD/HD.	Yes	171	76.0	0.24	Poor
		No	54	24.0		
7	When treatment for a child with AD/HD is discontinued, the child's symptoms typically do not recur.	Yes	177	78.7	0.21	Poor
		No	48	21.3		

Level of evaluation [Poor = 0-0.66; Fair =0.67-1.33; Good =1.34-2]

According to the statistical mean, the table (4.2.3) showed that primary school teachers had poor knowledge on how to treat ADHD, as evidenced by low mean scores (M.s. 0.66) at all examined scale items.

**Table 4.2.4. Primary School Teachers Knowledge towards ADHD by Overall Domains(N=225):**

Knowledge Domains	Level	No.	%	M ( $\pm$ SD)
Knowledge of General Information of ADHD	Poor (0-5)	140	<b>62.2</b>	4.78 $\pm$ 2.64
	Fair (5.1-10)	82	36.4	
	Good (10.1-15)	3	1.3	
	Total	225	100.0	
Knowledge of Signs and Symptoms of ADHD	Poor (0-2.66)	115	<b>51.1</b>	2.55 $\pm$ 1.62
	Fair (2.67-5.33)	102	45.3	
	Good (5.34-8)	8	3.6	
	Total	225	100.0	
Knowledge of Treatment of ADHD	Poor (0-2.33)	94	41.8	2.47 $\pm$ 2.01
	Fair (2.34-4.66)	99	<b>44.0</b>	
	Good (4.67-7)	32	14.2	
	Total	225	100.0	

SD=Standard Deviation for total score, M= Mean for total score

The findings are included in this table that displays the knowledge domains primary school teachers have regarding ADHD: Knowledge in terms of general information of ADHD, (62.2%) of the primary school teachers expressed poor level ( $Mean=4.78$ ;  $SD=2.64$ ). Knowledge in terms of signs and symptoms of the ADHD, (51.1%) of the primary school teachers expressed poor level ( $Mean=2.55$ ;  $SD=1.62$ ). Knowledge in terms of treatment of the ADHD, (44%) of the primary school teachers expressed fair level ( $Mean=2.47$ ;  $SD=2.01$ ).

**Table 4.2.5. Overall Primary School Teachers Knowledge towards ADHD(N=225):**

Knowledge	No.	%	$M (\pm SD)$	Ass.
Poor	124	<b>55.1</b>	9.79 ± 4.80	<b>Poor</b>
Fair	98	43.6		
Good	3	1.3		
<i>Total</i>	225	100.0		

*SD=Standard Deviation for total score; M : Mean for total score*

**[Poor = 0-10; Fair = 10.1-20; Good = 20.1-30]**

The results showed that (55.1%) of the primary school teachers exhibited a poor level of knowledge regarding attention deficit hyperactivity disorder (M=9.79; SD=480).



**Figure 4-1. Primary School Teachers Knowledge**

**Table4-3-1. Primary School Teachers Attitudes regarding ADHD(N=225):**

List	Attitudes Items	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	M.s	Ass.
		No.	No.	No.	No.	No.		
1	AD/HD is a behavioral disorder that should not be medicated.	65	89	18	45	8	2.30	Negative
2	Children who cannot sit still in class simply need to be disciplined or punished.	42	65	33	75	10	2.76	Neutral
3	I would feel frustrated having to teach an AD/HD.	48	63	38	57	19	2.72	Neutral
4	AD/HD is a legitimate educational problem.	37	58	23	82	25	3.00	Neutral
5	Having an AD/HD child in my class would disrupt my teaching.	80	88	27	25	5	2.05	Negative
6	AD/HD children should be taught by special education teachers.	106	58	20	36	5	2.00	Negative
7	Most students with AD/HD really disrupt classes that much.	91	78	30	22	4	1.98	Negative
8	Kids with AD/HD shouldn't be taught in the regular school system.	76	65	29	48	7	2.31	Negative
9	The additional time teachers devote to teaching kids with AD/HD comes at the expense of students without AD/HD.	31	43	27	97	27	3.20	Neutral
10	Other students do not learn as well as they should when there is an AD/HD child in the class.	100	72	27	20	6	1.93	Negative
11	AD/HD children cannot change the way they behave.	30	42	33	105	15	3.15	Neutral
12	AD/HD children misbehave because they do not like following rules.	57	98	39	26	5	2.22	Negative
13	Combination of medication and behavior management isn't best for treating ADHD.	37	54	35	84	15	2.94	Neutral
14	Family issues or conjugal discord do not influence a child's ADHD.	38	31	31	94	31	3.22	Neutral
15	Students with ADHD are just as difficult to manage in the classroom as any student.	51	72	41	50	11	2.55	Neutral
16	Children with ADHD are more likely to skip school or run away.	71	83	26	35	10	2.24	Negative
17	ADHD children doesn't need psychological support.	41	24	19	90	51	3.38	Neutral
18	Children with ADHD have lower IQs than children without ADHD.	54	50	52	55	14	2.67	Neutral
19	Children with ADHD have fewer interpersonal difficulties with their coworkers.	63	63	43	48	8	2.44	Neutral
20	ADHD children should receive more homework than others.	36	41	30	98	20	3.11	Neutral

Level of Assessment [Negative = 1-2.33; Neutral = 2.34-3.66; Positive = 3.67-5]

According to the statistical mean, the table (4.3.1) showed that primary school teachers responded to ADHD in a neutral manner as evidenced by mean scores (M.s. = 2.34 - 3.66) was (moderate ) at all examined scale items, with the exception of items 1, 5, 6, 7, 8, 10, 12, and 16, where the teachers' responses were negative, as evidenced by mean of scores (M.s. 2.33) was low.

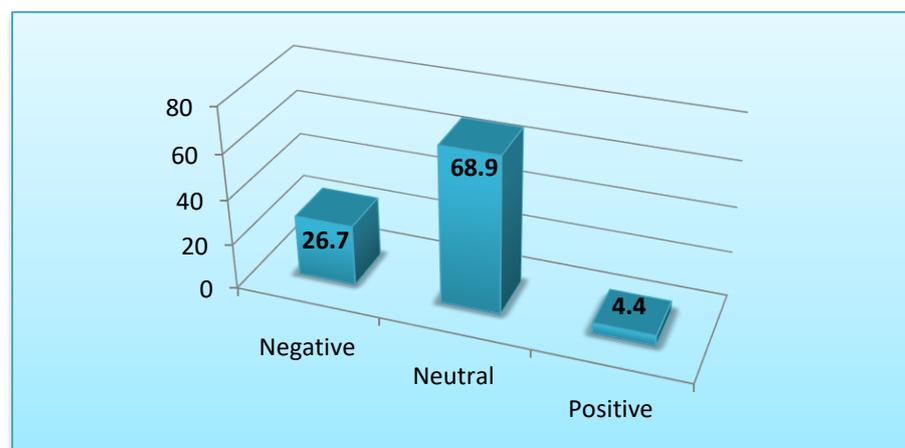
**Table 4.3.2. Overall Primary School Teachers Attitudes towards ADHD(N=225):**

Attitudes	No.	%	$M (\pm SD)$	Ass.
Negative	60	26.7	$52.17 \pm 13.06$	<i>Neutral</i>
Neutral	155	<b>68.9</b>		
Positive	10	4.4		
<i>Total</i>	225	100.0		

M: Mean for total score, SD=Standard Deviation for total score

[Negative= 20-46.66; Neutral= 46.67-73.33; Positive= 73.34-100]

The results showed that (68.9%) of the primary school teachers exhibited neutral attitudes regarding attention deficit hyperactivity disorder (M = 52.17; SD = 13.06).



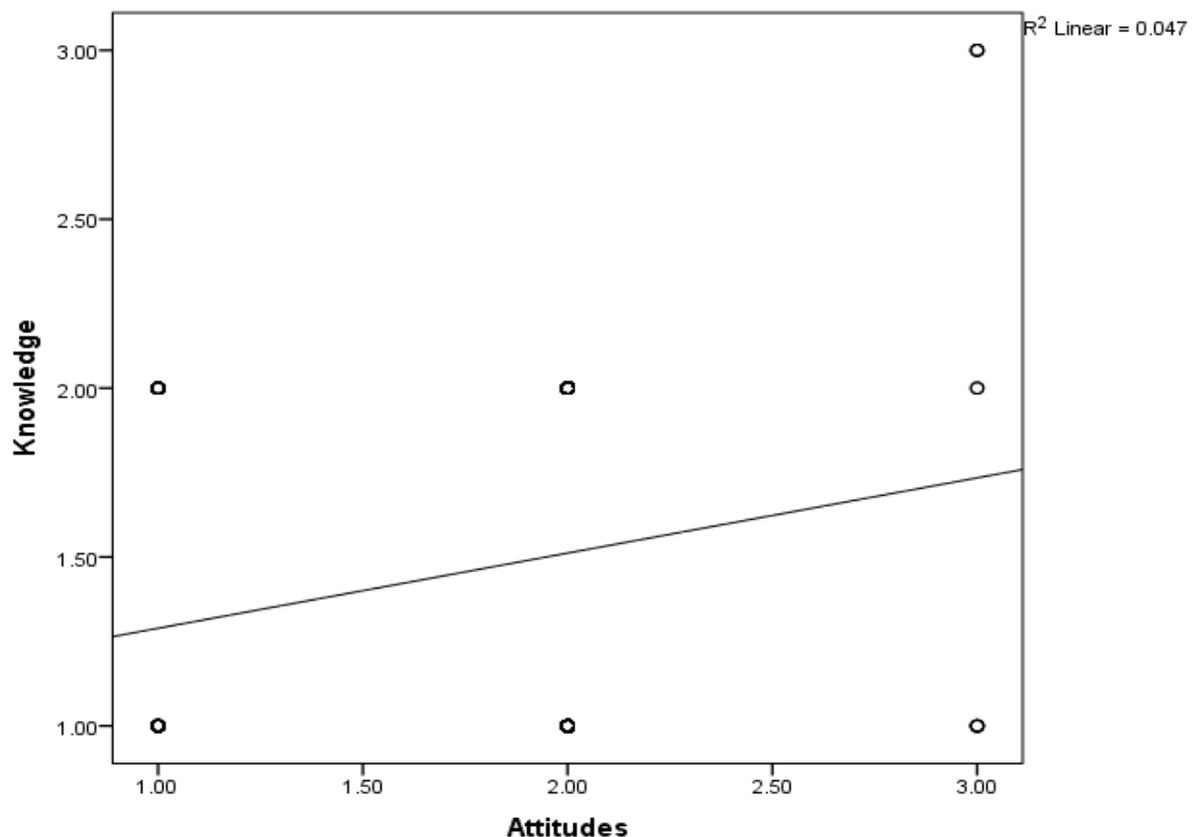
**Figure 4-2. Primary School Teachers Attitudes**

**Table 4-4. Correlation between Knowledge and Attitudes among Primary School Teachers towards ADHD(N=225):**

Correlation Statistics	Knowledge	Attitudes
Knowledge	1	.217**
Attitudes	.217**	1

The significance level for the association is 0.01 (2-tailed)

Outcomes showed that the primary school teachers attitudes were positively correlated with their knowledge regarding ADHD ( $r = .217$ ;  $p = .001$ ).



**Fig. 4-3. Knowledge and Attitudes among Primary School Teachers towards ADHD.**

#### 4.5. Statistical Differences in Knowledge and Attitudes with Respect to Their Socio-Demographic Information(N=225):

**Table 4-5-1. Discrepancies in knowledge and attitudes between groups of age:**

Age	The source of variance	Total Squares	degree of freedom	Mean Square	<i>F-statistic</i>	<i>Significant</i>
Knowledge	Between Groups	.012	2	.006	.225	.799
	within Groups	5.731	222	.026		
	Total	5.743	224			
Attitudes	Between Groups	1.913	2	.956	2.267	.106
	within Groups	93.643	222	.422		
	Total	95.556	224			

The analysis of variance revealed no statistically significant variations in teachers' knowledge or attitudes toward ADHD ( $F = .225$ ;  $p = .799$ ).

**Table 4-5-2. Differences in Knowledge and Attitudes between Groups of Sex:**

Variables	Sex	M	SD	Std. Error	t-value	d.f	Sig.
Knowledge	Male	.34	.118	.01180	1.187	223	.237
	Female	.31	.186	.01671			
Attitudes	Male	2.69	.517	.05175	1.751	223	.081
	Female	2.54	.739	.06611			

The independent sample t-test found no statistically significant differences in attitudes or knowledge of ADHD between male and female teachers ( $t = 1.751$ ;  $p = .081$ ) or knowledge ( $t = 1.187$ ;  $p = .237$ ).

**Table 4-5-3. Differences in Knowledge and Attitudes between Groups of Residents:**

Variables	Residents	M	SD	Std. Error	t-value	d.f	Sig.
Knowledge	Urban	.36	.126	.01121	4.407	223	.000
	Rural	.27	.183	.01865			
Attitudes	Urban	2.66	.511	.04522	1.549	223	.123
	Rural	2.53	.799	.08113			

The independent sample t-test revealed statistically significant differences in the teachers' knowledge of ADHD in relation to their residents ( $t = 4.407$ ;  $p = .000$ ), but no statistical differences in their attitudes ( $t = 1.549$ ;  $p = .123$ ).

**Table 4-5-4. Differences in Knowledge and Attitudes between Groups of Marital Status:**

Marital status	Source of variance	Sum of Squares	d.f	Mean Square	<i>F</i> - <i>statistic</i>	<i>Sig.</i>
Knowledge	Between Groups	.106	3	.035	1.387	.248
	Within Groups	5.637	221	.026		
	Total	5.743	224			
Attitudes	Between Groups	.460	3	.153	.356	.785
	Within Groups	95.096	221	.430		
	Total	95.556	224			

There were no statistically significant variations in teachers' knowledge of ADHD ( $F = 1.387$ ;  $p = .248$ ) or attitudes about it ( $F = .356$ ;  $p = .785$ ) based on marital status, according to the analysis of variance.

**Table 4-5-5. Differences in Knowledge and Attitudes between Groups of Education Level:**

Education Level	The source of variance	Total Squares	Degree of freedom	Mean Square	<i>F-statistic</i>	<i>Sig</i>
Knowledge	Between Groups	.027	2	.013	.522	.594
	within Groups	5.716	222	.026		
	Total	5.743	224			
Attitudes	Between Groups	1.795	2	.898	2.125	.122
	Within Groups	93.760	222	.422		
	Total	95.556	224			

According to the analysis of variance, there were no statistically significant variations between teachers' knowledge and attitudes regarding ADHD, irrespective of their educational attainment [(K)  $F = .522$ ;  $p = .594$ ; (A)  $F = 2.125$ ;  $p = .122$ ].

**Table 4-5-6. Differences in Knowledge and Attitudes between Groups of Years of Experience:**

Experience of years	The source of variance	Total Squares	Degree of freedom	Mean Square	<i>F-statistic</i>	<i>Sig</i>
Knowledge	Between Groups	.000	1	.000	.001	.978
	within Groups	5.743	223	.026		
	Total	5.743	224			
Attitudes	Between Groups	.152	1	.152	.355	.552
	Within Groups	95.404	223	.428		
	Total	95.556	224			

An analysis of variance showed no statistically significant variations between teachers' attitudes and knowledge regarding an ADHD and their years of experience ( $F = .001$ ,  $p = .978$ ;  $F = .355$ ,  $p = .552$ , respectively).

**Table 4-5-7. Differences in Knowledge and Attitudes between Groups of Teaching Class:**

Teaching Stage	The source of variance	Total Squares	Degree of freedom	Mean Square	<i>F-statistic</i>	<i>Sig</i>
Knowledge	Between Groups	.090	6	.015	.578	.748
	within Groups	5.653	218	.026		
	Total	5.743	224			
Attitudes	Between Groups	.872	6	.145	.335	.918
	Within Groups	94.684	218	.434		
	Total	95.556	224			

There were no statistically significant differences between teachers' attitudes and knowledge of ADHD based on their teaching stage ( $F = .355$ ;  $p = .918$ ) or knowledge of ADHD ( $F = .578$ ;  $p = .748$ ), as determined by an analysis of variance.

**Table 4-5-8. Differences in Knowledge and Attitudes between Groups of Specialist:**

Specialist	The source of variance	Total Squares	Degree of freedom	Mean Square	<i>F-statistic</i>	<i>Sig</i>
Knowledge	Between Groups	.090	6	.015	.578	.748
	within Groups	5.653	218	.026		
	Total	5.743	224			
Attitudes	Between Groups	.872	6	.145	.335	.918
	Within Groups	94.684	218	.434		
	Total	95.556	224			

The analysis of variance revealed no statistically significant differences between teachers' attitudes and knowledge of ADHD in relation to their area of specialization ( $F = .355$ ;  $p = .918$ ) or knowledge of ADHD ( $F = .578$ ;  $p = .748$ ).

**Table 4-6. Relationship between Teachers Knowledge and Sources of Information regarding ADHD:**

Correlation statistics	1	2	3	4	5	6	7	8
1.Knowledge	1							
2.Have enough information	.403**	1						
3.Read about ADHD	.223**	-.133-*	1					
4. taught to students with ADHD	.113	-.116-	.219**	1				
5.Courses of ADHD	.369**	-.082-	.112	.077	1			
6.Do you have Child with ADHD	.339**	-.091-	.089	.075	.792**	1		
7. action would take with ADHD	.116	-.018-	.068	.050	-.023	.083	1	
8.Sources of information about ADHD	.118	.035	.028	.118	-.041	.020	.129	1

Correlation is significant at the 0.01 level (2-tailed).

The results demonstrate that the primary school teachers' knowledge is positively correlated with having enough knowledge of ADHD ( $r = .403$ ;  $p$

=.000), reading about ADHD ( $r = .223$ ;  $p = .000$ ), taking courses related to ADHD ( $r = .369$ ;  $p = .000$ ), and having a child with ADHD ( $r = .339$ ;  $p = .000$ ).

**Table 4-7. Relationship between Teachers Attitudes and Sources of Information regarding ADHD:**

Correlation statistics	1	2	3	4	5	6	7	8
1.Attitudes	1							
2.Have enough information	-.110-	1						
3.Read about ADHD	.115	-.133-	1					
4. taught to students with ADHD	.043	-.116-	.219**	1				
5.Courses of ADHD	.070	.082	.112	.077	1			
6.Do you have Child with ADHD	.157*	.191	.089	.075	.792	1		
7. action would take with ADHD	.014	-.018-	.068	.150	.023	.083	1	
8.Sources of information about ADHD	-.004-	.035	.028	.118	.041	.020	.129	1

At the 0.05 level (2-tailed), an association is significant.

Outcomes showed that the primary school teachers attitudes were positively correlated with their having a child with ADHD ( $r = .157$ ;  $p = .005$ ).



*Chapter five*

*Discussion*

## Chapter Five

### Discussion

This chapter provides a systematically structured interpretation & reasoning-based discussion at supported findings by available literature & linked studies.

#### **5-1-A. Study Socio-Demographic Data:**

Results revealed most of the teachers were in the 30–39 age category (Table 4.1.1). This is similar to the results Al-Moghamssi & Aljohani (2018) entitled {Elementary school teachers' knowledge of attention deficit/hyperactivity disorder}. They discovered that teachers were mostly between the ages of 31 and 40.

The current study showed that women made up the majority of teachers (55.6%) (Table 4.1.1). The teaching profession is more preferred by women than men because women have more empathy toward children than men, and they have more contact with their children at home. In addition, it may explain that by the fact that females were exposed to greater burdens and spent more time and energy than males. The findings of Shehata . *et al.* (2016), entitled (Effectiveness of a Structured Teaching Program on Knowledge, Attitude, and Management Strategies Among Teachers of Primary School Toward Children with Attention Deficit Hyperactivity Disorders), are consistent with this outcome. who found that 71.7% of the study sample were female.

Regarding the residency, the percentage of teachers in the urban area is higher than in rural (56.9%) (Table 4.1.1). This result may be due to the increase in population density in the urban area, because most schools sites are located in the city centers, as well as higher proportions of students in

urban more than students in rural, a previous review demonstrated that geographical location plays a limited rate in the large variance of ADHD prevalence estimates according form primary

school teachers report. This result is in coincided with the study of [Al-amarei, et al.](#)(2020),who found that of the study sample were living in urban area (84.3%).

According to the study's findings (Table 4.1.1), the majority of teachers (86.2%) were married.

The outcomes of a study were is congruent with a study of [Alabd, et al.](#)(2018),who found that most of the study samples 95.8% were married. This result was supported also by the study of [Shehata, et al.](#) (2016), who found that (80%) of the study sample were married.

The results of this study showed (63.1%) most of the sample were from Bachelor degree. This study's findings concurred with those of [Khademi ,et al.](#)(2016) ,who found (60.5%) of the study sample were at Bachelor degree. These findings not correspond with the findings of [Al-amarei, et al.](#)(2020) who found that most of sample a diploma degree (61.4%).

The results of this study showed (57.8%) their teaching experience were at more 10 years (Table 4.1.1) .This result of the study were disagree with the study of [Al-amarei, et al.](#)(2020),who found that most of the sample (38.6%) his sample had 10 or less years (teaching experience).

The study outcomes showed that most of the instructors they teach class 5 (24.4%)(table 4.1.1).In this study, school age in class 4-6 important for teachers to be aware of what ADHD looks like in the classroom because they often face the challenge of providing reading instruction at a basic

level. In addition, peak activity of the symptoms of ADHD might be appeared by the age 7-10 according to (APA),(2013).The outcomes of a study agrees with the study results of , [Al-amarei,et al.\(2020\)](#), who found that most of the study sample (44%) were teaching grade4-6).

Also study results showed that the most of the study participants teaching were Arabic specialty (27.1%)(Table 4.1.1). Present result disagree with [Alfageer et al.,\(2018\)](#) their found (24%) and [Al-amarei, et al.\(2020\)](#) their found (34%) of the participants in teaching Islamic lesson.

### **5-1-B. Sources of Information about ADHD:**

Regarding the question, (Do you have enough information about ADHD) The study's findings are displayed in Table 4.1.2, where 8.4% of teachers responded (yes) and 91.6% responded (no). "This could be attributed to a lack of knowledge about the disorder as well as a lack of instructional initiatives for teachers. This outcome is consistent with the outcomes of [Al-Amarei, et al. \(2020\)](#), who discovered that more than half of the study sample (59%) had no awareness of ADHD.

Concerning the sources of knowledge about ADHD, survey results showed that (16%) of teachers answered "yes" and (84% ) answered "no" to the question "Have you ever heard or read about ADHD?" (Table 4.1.2). This finding contradicts the findings of [Alfageer, et al. \(2018\)](#), who discovered that of the research sample of teachers, 93% said they had heard of ADHD and 7% said they had not.

Regarding the sources of information regarding ADHD, when asked, {Have you ever taught to students with ADHD?}, survey results show that (27.6%) of the teachers answer yes, while (72.4%) answer no (Table 4.1.2). This finding contradicts the findings of [Alfageer, et al. \(2018\)](#), who

discovered that of the study sample teachers, yes (57%), no (43%), answered the question Taught a child with ADHD.

In terms of AD/HD-related information sources, , have you attended ADHD courses? The study results suggest that 6.2 percent of the teachers answered (yes) and 93.8 percent answered (no). (Table 4.1.2). This outcome is consistent with the outcomes of [Alfageer, et al.](#) (2018), who discovered that of a research sample of teachers, 18% went to ADHD courses and 82% did not.

On the subject of resources for knowledge about AD/HD, [Do you have a kid with AD/HD?] A study found that 96% of instructors replied (no) and 4% said (yes) (Table 4.1.2).

Regarding the question, {What action would you take if a student with an attention deficit/hyperactivity disorder were present in your classroom?} The majority of teachers (55.6%) indicated that they would inform the school administration. (Table 4.1.2). This result contradicts the findings of [Khademi . et al.](#) (2016), whom found that a majority (55%) of instructors who replied to this question in their study group said they tell parents.

According to the current study's findings about the elementary sources of information towards an ADHD, 50.7% of teachers learned about ADHD via an online source (table 4.1.2). This finding highlights the enormous amount of information that is currently available on the internet, but relying exclusively on it as a source of knowledge is inappropriate because not all the information found there is authentic; therefore, one should exercise caution while obtaining information regarding the illness. The outcomes of a study were in congruent with a study of [ [Alfageeri et al.](#),(2018) ; [Al-amarei, et al.](#)(2020)] and disagree with the research of [Al-Omari, et al.](#)(2015) the results of the study was (34.9%) Television and radio.

## **5-2: Primary School Teachers Knowledge towards an Attention Deficit/ Hyperactivity Disorder:**

### **5-2.1: Overall Primary School Teachers Knowledge about General Information of ADHD:**

According to table 4.2.1, the study's findings showed that most participants (62.2%) had insufficient knowledge of the basics about ADHD. The current results supported by the study ([Al-amarei, et al.2020](#)) showed that teacher of primary schools have poor knowledge about General Information regarding an ADHD, the result of the study was (67.1%).

### **5-2.2: Primary School Teachers Knowledge about Signs & Symptoms of ADHD:**

The study's findings, as shown in Table 4.2.2, showed that the vast majority of participants (51.1%) have a lack of knowledge of the signs and symptoms towards an attention deficit /hyperactivity disorder. The current outcomes are supported by a study ([Al-amarei, et al.2020](#)) showed that teacher of primary schools have poor knowledge about Signs and Symptoms regarding an ADHD, the result of the study was (60%).

### **5-2.3: Knowledge of Primary School Teachers about Treatment of ADHD:**

According to the table (4.2.3), The study's findings showed that the majority of participants have (51.1%) fair level of knowledge related to Treatment towards an attentional deficit /hyperactivity disorder. the outcomes of this study disagreed with study ([Al-amarei, et al.2020](#)) which study showed that teacher of primary schools have poor knowledge about Treatment regarding an ADHD, the result of the study was (52.9%).

### **5-2.4: Overall Primary School Teachers Knowledge towards ADHD:**

The study's findings showed that the majority of participants have very low knowledge (55.1%) toward ADHD (Table 4.2.4). According to several recent studies, this outcome can be the result of teachers' ignorance about this disorder and how to treat students who have it. Perhaps, result of decreased standards for vocational training in Iraq. Professionals need to accurately identify about this disorder; therefore, it is important for teachers to know the characteristics and advantages of ADHD.

Several studies support our results (Al-amarei, *et al.* 2020 & Lasisi *et al.*, 2017; Khademi *et al.*, 2015; Jimoh, 2014; Alkahtani, 2013). They found that most teachers didn't have enough knowledge about ADHD.

### **5-3: Overall Primary School Teachers Attitudes Regarding an Attention Deficit/ Hyperactivity Disorder.**

In table (4.3.2), nearly two-thirds (68.9%) of elementary school teachers expressed neutral attitudes towards an attentional deficit /hyperactivity disorder at an average equal to 52.17 ( $\pm 13.06$ ). While (26.7%) of the total sample had negative attitudes, the remaining (4.4%) had positive attitudes regarding an ADHD.

The study's findings are backed up by the study Khademi, 2016 {knowledge and Attitude of primary school teachers in Tehran /Iran towards ADHD and SLD}, which found that the attitudes is neutral (47.6%).

The current study's findings disagreed with study conducted by Jimoh, 2014 "knowledge and Attitudes towards Attention Deficit Hyperactivity Disorder among primary school teachers in Lagos state,

Nigeria", they reported that negative attitudes to pupils with ADHD among primary school teachers.

Another study carried out by (Al-amarei, *et al.*2020), To "Assessment of Knowledge and Attitudes toward Attention Deficit/ Hyperactivity Disorders among primary school`s Teachers in Al-Najaf city". they reported that poor attitudes (71.4%) Toward pupils with ADHD.

Also, this study were not consistent with the study of the Alfageer, *et al.*2018 [Knowledge and Attitude of Male Primary School Teachers about Attention Deficit and Hyperactivity Disorder in Riyadh ,Saudi Arabia]. they reported that a positive attitudes toward ADHD.

#### **5-4:Correlation between Attitudes and Knowledge among Primary School Teachers Regarding an ADHD:**

Our major findings indicated a significant positive relationship between teachers' attitudes and knowledge ( $r = .217$ ;  $p = .001$ ). So it's important that teachers with better knowledge have fewer negative attitudes towards ADHD.

Outcomes of a current study were in agreement with those of a study carried out in Al-Najaf city by Al-amarie, *et al.*, 2020; they found a substantial positive association among instructors' knowledge and attitude ( $r = 0.468$ ,  $P < 0.0001$ ).

The current study disagreed with the study conducted in Jordan by Al-Omari, *et al.*2015; {Knowledge of and Attitude towards Attention-deficit Hyperactivity Disorder among Primary School Teachers}. The researchers concluded that there was no significant correlation between primary school

teachers' knowledge and their attitude toward students with ADHD ( $r = 0.078, p > 0.05$ ).

## **5-5: Statistical Differences in Knowledge and Attitudes with Respect to their Socio-Demographic Variables:**

### **5.5.1: Differences in Knowledge and Attitudes between Groups of Age:**

According to the study's findings on the association between the mean knowledge score, all instructors' attitudes towards ADHD, and their ages, No statistically significant differences in teachers' knowledge were found. knowledge ( $F = .225; p = .799$ ) and attitudes ( $F = 2.267; p = .106$ ) towards the ADHD with respect to their age groups.

The current study disagreed with the study conducted in Al-Najaf city by (Al-amarie, *et al.*2020); this study find revealed there was an important association between teachers knowledge & their attitude with age ( $\chi^2 = 11.538, P.value = 0.005$ ).

### **5-5-2: Differences in Knowledge and Attitudes between Groups of Gender:**

The study's findings regarding the association between the mean score of knowledge, all instructors' attitudes towards ADHD, and their gender found no statistically significant differences in teachers' knowledge. knowledge ( $t = 1.187; p = .237$ ) and attitudes ( $t = 1.751; p = .081$ ) towards the ADHD with respect to their gender.

This study agreed with the study conducted in Al-Najaf city by (Al-amarie, *et al.*2020); This study found no significant difference ( $\chi^2 = 1.152, P = value 0.783$ ) among female and male instructors' levels of knowledge and attitudes.

### **5-5-3. Differences in Knowledge and Attitudes between Groups of Residents:**

The study revealed statistically significant differences in teachers' knowledge regarding residents the relationship between the mean score of knowledge, teachers' attitudes toward ADHD in general, and their students. knowledge ( $t = 4.407$ ;  $p = .000$ ); and no statistically significant differences in attitudes ( $t = 1.549$ ;  $p = .123$ ) towards ADHD among their residents.

### **5-5-4. Differences in Knowledge and Attitudes between Groups of Marital Status:**

The study found no statistically significant differences between the groups of teachers in their knowledge of the relationship between the mean knowledge score, the general attitudes of the teachers towards ADHD, and their marital status. knowledge ( $F = 1.387$ ;  $p = .248$ ) and attitudes ( $F = .356$ ;  $p = .785$ ) towards the ADHD with respect to their marital status.

### **5-5-5. Differences in Knowledge and Attitudes between Groups of Education Level:**

According to the study, there were no statistically significant variations in teachers' grasp of a relationship between mean knowledge score, teachers' general attitude toward ADHD, and their level of education. Knowledge ( $F = .522$ ;  $p = .594$ ) and attitudes ( $F = 2.125$ ;  $p = .122$ ) concerning ADHD differed by education level.

Our study results agreed with (Al-amarei, *et al.*2020), their results showed that there no significant effect education level and knowledge of ADHD, teachers Knowledge ( $\chi^2 = 9.562$ , at  $P$ -value = 0.048) & teachers attitude ( $\chi^2 = 19.855$ , at  $p$ -value = 0.001).

### **5-5-6. Differences in Knowledge and Attitudes between Groups of Years of Experience:**

The study found no statistically significant variations in teachers' knowledge of the association between the mean score of knowledge, the overall instructors' attitude towards ADHD, and their years of experience. knowledge ( $F = .001$ ;  $p = .978$ ) and attitudes ( $F = .355$ ;  $p = .552$ ) towards the ADHD based on the number of years of experience.

The current study disagreed with the study conducted in Al-Najaf city by (Al- amarie, *et al.*2020); this study find revealed teachers knowledge about ADHD and years of experience on the job a significant relationship ( $\chi^2 = 13.592$ , at  $p$  value = 0.026).

### **5-5-7. Differences in Knowledge and Attitudes between Groups of Teaching Stage:**

The study found no statistically significant differences between teachers' knowledge of the association between the mean knowledge score, all teachers' attitudes towards ADHD, and their teaching stage. Knowledge ( $F = .578$ ;  $p = .748$ ) and attitudes ( $F = .355$ ;  $p = .918$ ) towards the ADHD with respect to their teaching stage.

### **5-5-8. Differences in Knowledge and Attitudes between Groups of Specialist:**

According to a study, there were no statistically significant variations in teachers' knowledge regarding a relationship between mean knowledge score, general teacher attitudes towards ADHD, and their area of specialization. Knowledge ( $F = .578$ ;  $p = .748$ ) and attitudes ( $F = .355$ ;  $p = .918$ ) about ADHD in relation to their specialist were not significantly different.

### **5-6: Relationship between Knowledge of Teachers and Sources of Data Regarding ADHD:**

Concerning the relationship between the informational sources and teachers' knowledge, the research findings indicate that the knowledge of elementary school teachers is significantly correlated with their having enough information about ADHD ( $r = .403$ ;  $p = .000$ ), having read about ADHD ( $r = .223$ ;  $p = .000$ ), having taken courses related to ADHD ( $r = .369$ ;  $p = .000$ ), and having a child with ADHD ( $r = .339$ ;  $p = .000$ ).

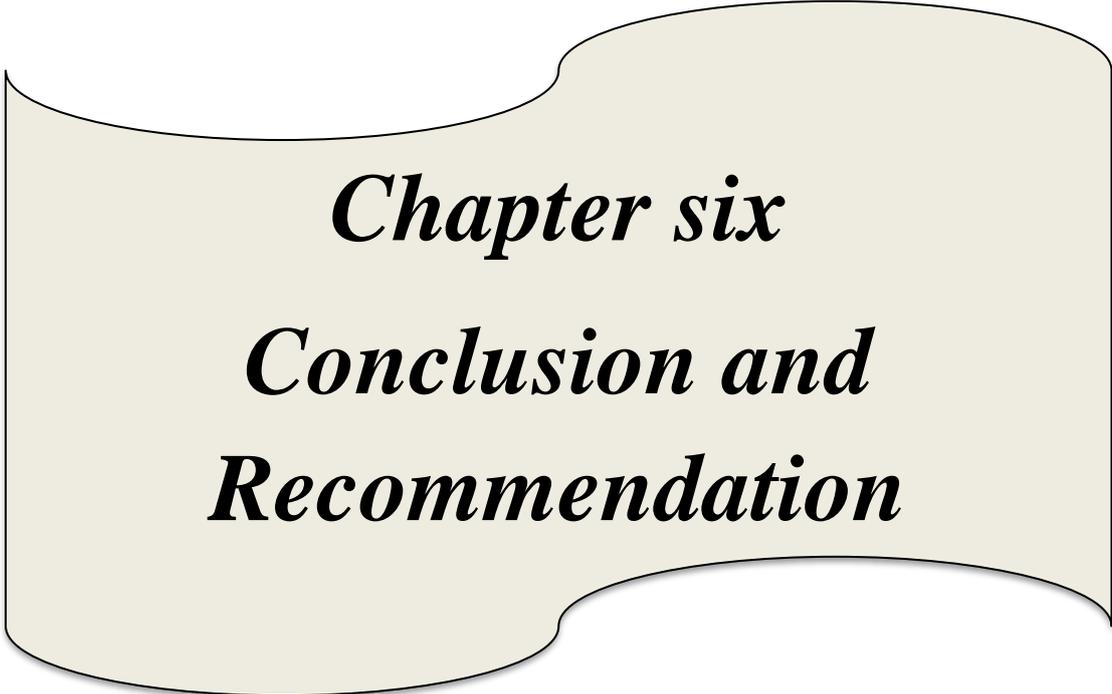
The current study agreed with the study conducted in Al-Najaf city by (Al- amarei, *et al.*2020); this study showed there are important association among teachers' knowledge & source information ( $\chi^2=15.659$ ,  $atp$ -value=0.032).

### **5-7. Relationship between Teachers Attitudes and Sources of Information regarding ADHD:**

Regarding the Relationship between Teachers Attitudes and Sources of Information, the study findings show that the primary school teachers attitudes is positively significant correlated with their having child with ADHD ( $r=.157$ ;  $p=.005$ ).

The current study agreed with the study conducted in Jordan (Al-Omari, *et al.*2015) this study showed no significant difference in attitudes regarding an ADHD and source of information , result was  $t(120) = 1.1$ ,  $p > 0.05$ .

In light of the aforementioned, the researchers are obligated to spread awareness of the issue and urge primary school teachers to develop their empathy for and understanding of pupils with attention deficit hyperactivity disorder. This will aid them in diagnosing the illness and treating these children appropriately.



***Chapter six***  
***Conclusion and***  
***Recommendation***

## **Chapter Six**

### **Conclusion and Recommendation**

This chapter introduces conclusions that are resulting from the study's analysis and discussion findings. Recommendations established based on the research conclusions.

#### **6.1 Conclusions:**

According to the interpretation of the results of this study, it concluded as follows:

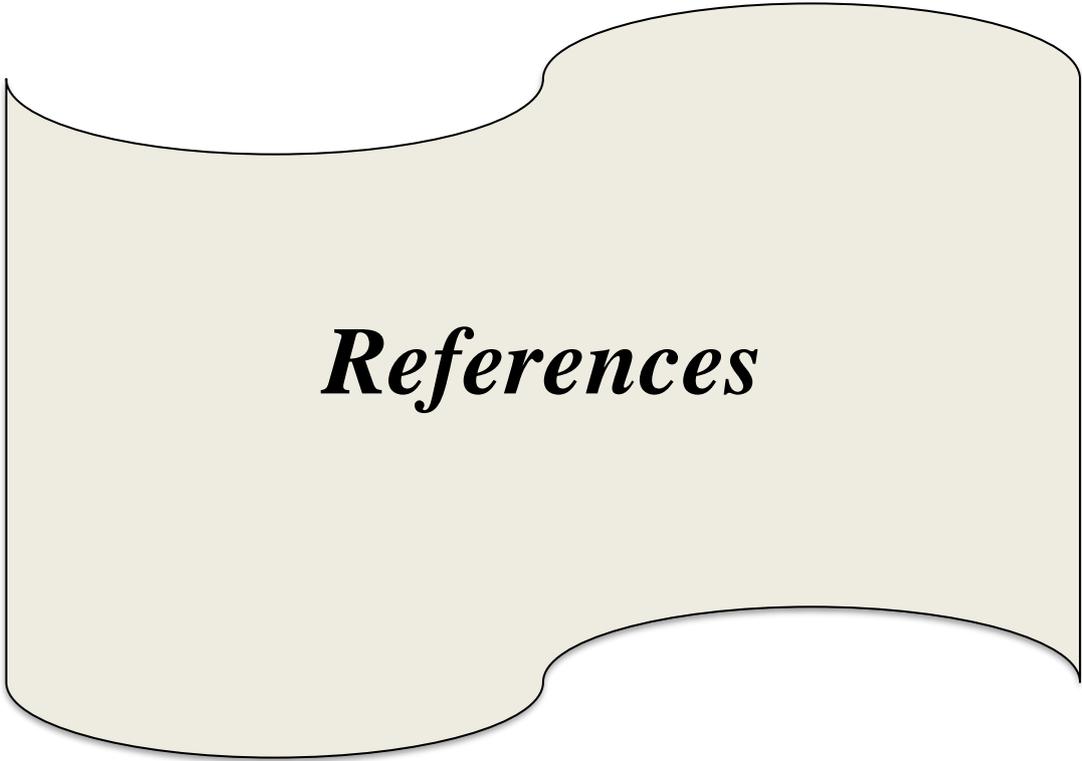
From the results of this study, it is concluded that the knowledge regarding attention deficit hyperactivity disorder among primary school teachers was poor, their attitude was relatively neutral, and there is a positive and significant relationship between overall knowledge and attitude regarding attention deficit hyperactivity disorder.

#### **6.2: The Recommendations:**

The following are the recommendations made by the researcher due to the findings of the current study:

- 1- Support governmental organizations in enhancing programs that will aid in boosting attention and reinforcing favorable Knowledge and attitudes toward children with ADHD.
- 2- Increased and improved educational training programs, seminars, and workshops on the topic of ADHD held for teachers by the Ministry of Education are regarded as significant efforts to improve Knowledge and attitudes. These programs should specifically address information seeking and highlight the importance of interaction with people who have disabilities.

- 3- A population-wide mass media strategy is being used to increase instructors' understanding of ADHD.
- 4- psychologists should work with teachers during training.
- 5- University curricula for teachers should include information on early detection of ADHD in children.
- 6- More in-depth research is recommended to address teachers' negative attitudes and lack of knowledge toward students with ADHD.
- 7- The nurse, family, and teachers should cooperate to detect the exact problems facing children with ADHD and provide proper intervention.



# *References*

**References:****المصادر العربية:**

القرآن الكريم، سورة البقرة الآية (32)

**English Sources****(A)**

Ahmed Sultan Alwily, M, Amjed, L, Ibrahim, R, Amjed Mahmood Al-Waly, L, Hussein Ibrahim, R.(2020). Teachers' Knowledge Regarding Attention-Deficit Hyperactivity Disorder between Pupils at Elementary Schools in Mosul City. *Medico-legal Update*,20(1).

Alabd,A.M.A.,Mesbah,S.K.,& Alboliteeh,M.(2018).Effect of Educational Program on Elementary School Teachers' Knowledge, Attitude, & Classroom Management Techniques Regards ADHD. *International Journal of Studies in Nursing*,3(3),159.

Al-Amarei, H.; Mohamed, S. (2020). Assessment of knowledge and attitudes toward attention deficit/hyperactivity disorders among primary school teachers in Al-Najaf City, *Medical-Legal Update*, 20(4).

Alfageer, H., Aldawodi, M., Al Queflie, S., Masud, N., Al Harthy, N., Alogayyel, N., Alrabah, M., and Qureshi, S. (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.

Alkahtani K.(2013).Teacher`s knowledge and misconceptions of Attention Deficit/ Hyperactivity Disorder. *Psychology* ,04(12), 963-969.

- Al-Moghamsi E& Aljohani A.(2018). Elementary school teacher`s knowledge of attention deficit/ hyperactivity disorder. *Journal of family medicine and primary care*, 7(5),907.
- Al-Omari,H.,Al-Motlaq,M.A.,&Al-Modallal,H.(2015).Knowledge of and Attitude towards ADHD among Primary School Teachers in Jordan. *J Child Care in Practice*,21(2),128-139.
- American Psychological Association. (2013). Publication manual of the American Psychological Association. (6th ed.). *Washington, DC: American Psychological Association.*
- Arjmandi Sh, Akikhavandi S, Sayehmiri K.(2015). Prevalence of attention deficit hyperactivity disorder among primary school children according to teachers' and parents' reports: *a systematic review and meta-analysis study Fundamentals of Mental Health*, 17(5), pp. 213-221.
- Ashford,C.,Duncan,N.,&Guth,J.(Eds.).(2015).Perspectives on Legal Education : Contemporary Responses to the Lord Upjohn Lecture. Routledge.
- Awadalla, N , Ali, O , Elshaer, S, Eissa, M.(2016). The role of school teachers in identifying attention deficit hyperactivity disorder among primary school children in Mansoura, *Egypt Eastern Mediterranean Health Journal*, 22(8).

**(B)**

- Ballantine,C.(2015).Teacher Knowledge and Perception of Students With an ADHD Label, Prepared in Partial Fulfillment of the Masters of Arts Degree in Multi-categorical Special Education Governors University,P.15.

Berri, H.M., & Al-Hroub, A. (2016). ADHD in Lebanese Schools. Diagnosis, Assessment, and Treatment. *Springer Cham Heidelberg New York Dordrecht London*, P.P.32,55. DOI 10.1007/978-3-319-28700-3.

(C)

Carolina, D & Garrido, P. (2016). Teachers' strategies for teaching vocabulary in classrooms with ADHD students.

Castanho, J, Polanczyk, G, Rohde, L, Coimbra, I. (2020). attention deficit hyperactivity disorder. *IACAPAP Textbook of Child and Adolescent Mental Health*.

(D)

Dessie M, Techane N, Tesfaye B, Gebeyehu D. (2021). Elementary school teachers knowledge and attitude towards attention deficit- hyperactivity disorder in Gondar, Ethiopia: a multi- institutional study. *Child and Adolescent Psychiatry and Mental Health*, 15(1).

Dort, M, Strelow, A, Schwinger, M, Christiansen, H. (2022). What Teachers Think and Know about ADHD: Validation of the ADHD-school-expectation Questionnaire (ASE). *International Journal of Disability, Development and Education*, 69(6), 1905-1918.

(G)

Greenway, C & Rees Edwards, A. (2020). Knowledge and attitudes towards attention-deficit hyperactivity disorder (ADHD): a comparison of teachers and teaching assistants. *Australian Journal of Learning Difficulties*, 25(1), 31-49.

Gudmundsdottir, B.G. (2014). The psychometric properties of the ADHD Beliefs Scale-Revised, A thesis submitted in partial fulfillment of the requirements for the degree of master of arts in psychology, University of Rhode Island, P.2.

**(H)**

- Hadi, M.(2020). Kindergartens Teacher's Knowledge and Attitudes Toward Early Detection of Autism Spectrum Disorders in Babylon Province.
- Halperin,J.M.,Bédard,A.C.V.,&Curchack- Lichtin, J.T.(2012). Preventive Interventions for ADHD: A neurodevelopmental Perspective. *J Neurotherapeutics*,9(3),531-541.
- Hossennia, M, Mazaheri, M, Heidari, Z.(2020). The Effect of An Educational Intervention on Teachers' Knowledge, Attitude, and Behavior regarding Attention Decit Hyperactivity Disorder (ADHD). <https://doi.org/10.21203/rs.3.rs-56749/v1> .

**(I)**

- Ibrahim A, Basudan M, Akbar N, Waled El- Ghamdi.(2017). Knowledge and Attitude of Female Teachers Toward ADHD at Elementary Schools, Jeddah, KSA. *International Annals of Medicine*, 3(1).

**(J)**

- Jimoh, M.(2014).Knowledge and Attitudes towards ADHD among Primary School Teachers in Lagos State, Nigeria. *Advances in Life Science andTechnology*,23(9).

**(K)**

- Khademi,M.,Rajeziesfahani,S.,Noorbakhsh,S.,Panaghi,L. Davari Ashtiani, R.,Razjouyan,K.,&Salamatbakhsh, N.(2016). Knowledge and Attitude of Primary School Teachers in Tehran/Iran towards ADHD and SLD. *Global journal of health science*, 8(12), 141-151.
- Kleynhans, S.(2005). primary school teachers' knowledge and misperceptions of attention-deficit/hyperactivity disorder (adhd) thesis

presented in partial fulfillment of the requirements for the degree of master of education in educational psychology (medpsych) at the university of Stellenbosch supervisor: me Mariechen Perold. Stellenbosch university <http://scholar.sun.ac.za> .

**(L)**

Lasisi,D.,Ani,C.,Lasebikan,V.,Sheikh,L.,& Omigbodun,O. (2017). Effect of ADHD training program on the knowledge and attitudes of primary school teachers in Kaduna, North West Nigeria. *Journal Child and adolescent psychiatry and mental health*, 11(1),15.

**(M)**

Mahdi S& Al-juboori A.(2021). Teacher`s Attitude Toward children with Attention- Deficit Hyperactivity Disorder(ADHD) at primary schools in Al-Nasiriyah city, Iraq. *1488 Indian journal of forensic medicine& toxicology*,15(1).

Mahone, E.M.,& Denckla, M.B.(2017).ADHD:A historical Neuropsychological perspective, *J Neuropsychiatric Society*,23(9-10),916-929.

McHargue, K.M.(2019).The Relationship between Teacher Experience and Teacher Attitude toward ADHD. Doctoral Dissertations & Projects. 2132 . <https://digitalcommons.liberty.edu/doctoral/2132>.

Mirza N, Nisar N, Ikram Z.(2017). Knowledge, attitude & practices towards attention deficit hyperactivity disorder among private elementary school teachers of Karachi, Pakistan. *J Dow Uni Health* ; 11(1): 11-17.

Mulholland, S. M., Cumming, T. M., & Jung, J. Y. (2015). Teacher attitudes towards students who exhibit ADHD-type behaviors. *Australasian Journal of Special Education*, 39, 15-36.

Munshi, A.(2014). Knowledge and misperceptions towards diagnosis and management of attention deficit hyperactive disorder (ADHD) among primary school and kindergarten female teachers in Al-Rusaifah district, Makkah City, Saudi Arabia. *International Journal of Medical Science and Public Health*,3(4),444.

**(N)**

NANDA-I, 2012 (p. 320, p. 275, p. 282)

**(O)**

Oluwaseun Morolake, A; Aina,J; Omotade,S & Olajumoke, D.A.(2022). Nurse-Led Intervention on Teachers' Knowledge and Management of Pupils with Attention Deficit Hyperactivity Disorder in Primary Schools in Abeokuta, Ogun State. *African Journal of Health, Nursing and Midwifery*,5(1),1-14.

Omunda ,R.(2021). Teachers' Beliefs and Experiences: Teaching Students With Attention Deficit Hyper tention Deficit Hyperactivity Disorder in K der in K-5 Inclusiv -5 Inclusive Classrooms, Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy Special Education.

**(P)**

Powell, L, Parker, J, Harpin, V, Mawson, S.(2019). Guideline development for technological interventions for children and young people to self-manage attention deficit hyperactivity disorder: Realist evaluation. *Journal of Medical Internet Research*,21(4).

Perold M, Louw C, Kleyhans S.(2010). Primary School Teachers' Knowledge and misperceptions of attention deficit hyperactivity disorder (ADHD). *South African Journal of Education*, 30, 457-473.

**(R)**

Rodrigo M, Perera D, Eranga V.P, Wiliams S.S, Kuruppuarachchi K.A.(2011)."The knowledge and attitude of primary school teachers in sri-lanka towards childhood attention deficit hyperactivity disorder". *The Ceylon medical journal*,56(2),51-54.

**(S)**

Safaan,N.A.,ElNagar,S.A.,&Saleh,A.G.(2017).Teachers' Knowledge about AD/HD among Primary School Children. *American Journal of Nursing Research*,5(2),42-52.

Samir Hamed, A& Ghafel, H.(2022). Evaluation of Elementary School Teachers' Knowledge about Signs and Symptoms of Attention Deficit Hyperactivity Disorder in AL-Diwaniyah City. *mosul journal of nursing*. <https://mjn.mosuljournals.com> .

Senol, V; Unalan, D; Akca, R& Basturk, M.(2018). Prevalence of attention-deficit/hyperactivity and other disruptive behavior disorder symptoms among primary school-age children in Kayseri, Turkey. *Journal of International Medical Research*,46(1),122-134.

Shehata,A.,Mahrous,E.,Farrag,E.,& Hassan,Z.(2016). Effectiveness of Structured Teaching Program on Knowledge, Attitude, and Management Strategies among Teachers of Primary School toward Children with ADHD. *Journal of Nursing and HealthScience*,5(6),29-37.

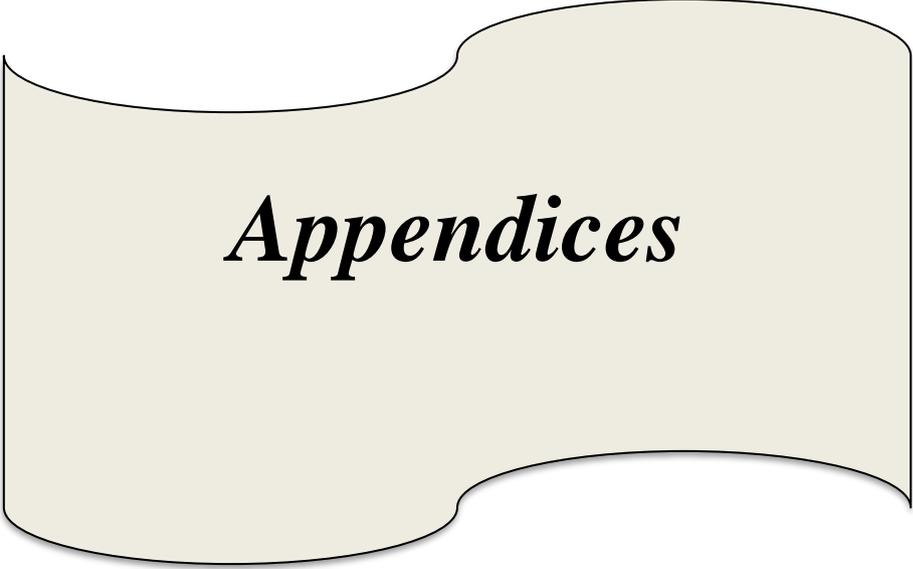
- Shetty A & Rai B.(2014). Awareness and knowledge of Attention Deficit Hyperactivity Disorders among primary school teachers in India. *International Journal of current pharmaceutical Review and Research*,6(9).
- Shroff, H. P., Hardikar-Sawant, S., & Prabhudesai, A. D. (2017). Knowledge and Misperceptions about Attention Deficit Hyperactivity Disorder (ADHD) Among School Teachers in Mumbai, India. *International Journal of Disability, Development and Education*, 64, 514-525.
- Singh,A.,Yeh,C.J.,Verma,N.,&Das,A.K.(2015).Overview of ADHD in young children. *Health psychology research*,3(2):2115.
- Stampoltzis, A., & Antonopoulou, K. (2013). Knowledge and misconceptions about attention deficit hyperactivity disorder (ADHD): A comparison of Greek general and special education teachers. *International Journal of School & Educational Psychology*, 1, 122-130.
- (T)**
- Tarver, J; Daley, D& Sayal, K.(2014). Attention-deficit hyperactivity disorder (ADHD): An updated review of the essential facts. *Child: Care, Health and Development*,40(6),762-774.
- Townsend, M.C.(2014). Psychiatric Mental Health Nursing: Concepts of Care in evidence-based Practice, 6th edition, *FADavis*,P.P.656-657-658-659.
- Townsend, M.C.(2015). Psychiatric Nursing: Assessment, Care plans and Medications, 9<sup>th</sup> edition, *Philadelphia: FA Davis*, P.P.26,27,34,35,37,38.

(V)

Videbeck, S. L.(2020).Psychiatric-Mental Health Nursing,8<sup>th</sup> edition,  
*Lippincott Williams& Wilkins*. p.p.958,959,963,967,968,969,970,971  
,972,974.

(Y)

Youssef, M.K., Hutchinson, G.,& Youssef, F.F.(2015) . Knowledge of and  
Attitudes toward ADHD among Teachers: Insights from a Caribbean  
nation. *Journal of Sage Open*,5(1).



***Appendices***

## Appendices

### Appendices (A)

## Approval Letter

University of Babylon  
College of Nursing  
Research Ethics Committee

جامعة بابل  
كلية التمريض  
لجنة الاخلاقيات البحث العلمي

Issue No:  
Date: 7 / 2 /2023

Approval Letter

-----

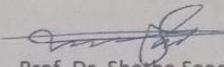
To, رفل علي محمد حسن

The Research Ethics committee at the **University of Babylon, College of Nursing** has reviewed and discussed your application to conduct the research study entitled "Knowledge and attitudes among primary school teachers regarding an attention deficit /hyperactivity disorder"

The Following documents have been reviewed and approved:

1. Research protocol
2. Research instrument/s
3. Participant informed consent

**Committee Decision.**  
The committee approves the study to be conducted in the presented form. The Research Ethics committee expects to be informed about any changes occurring during the study, any revision in the protocol and participant informed consent.

  
Prof. Dr. Shatha Saadi Mohammed  
Chair Committee  
College of Nursing  
Research Ethical Committee  
7 / 2 /2023



## Appendices

### APPENDIX (B)

#### List of governmental Primary school in Babylon province

جمهورية العراق  
وزارة التربية  
المديرية العامة للتربية في محافظة بابل  
قسم الإعداد والتدريب/شعبة البحوث والدراسات التربوية  
العدد: ٤١/٤/٤١  
التاريخ: ٢٠٢٣/٢/١٢

الى / ادارات المدارس الابتدائية في قضاء القاسم  
م/ تسهيل مهمة

السلام عليكم ...

اشارة الى كتاب جامعة بابل/ كلية التمريض ذي العدد (٥٥٦) في ٢٠٢٣/٢/٩ نرجو تسهيل مهمة طالبة الماجستير (رغل علي محمد حسن) لغرض اكمال متطلبات بحثها الموسوم:  
(معارف واتجاهات معلمي المرحلة الابتدائية المتعلقة باضطراب نقص الانتباه وفرط الحركة)  
Knowledge and Attitudes among Primary School Teachers Regarding an Attention )  
(Deficit/Hyperactivity Disorder  
وابداء تعاونكم معها عند زيارتها مدارسكم على ان لا يتعارض ذلك مع برنامجنا التربوي.

مع التقدير.

عباس كاظم حامد  
مدير قسم الاعداد والتدريب  
٢٠٢٣/٢/١٢

نسخه منه الي:  
• جامعة بابل/ كلية التمريض كتابكم اعلاه .. مع التقدير  
• قسم التخطيط التربوي/ الاحصاء/ لنفس الغرض اعلاه .. مع التقدير.  
• قسم الاعداد والتدريب/ شعبة البحوث والدراسات التربوية/ تسهيل المهمة مع الاوليات/ الملف الدوار.

E.mail:babylon41training@gmail.com

## Appendices

المديرية العامة لتربية بابل

قسم التخطيط التربوي

شعبة الاحصاء

ادناه اسماء المدارس الابتدائية في قضاء القاسم واعداد الملاك التعليمي حسب الكراسي الاحصائي للعام الدراسي (2021-2022)

ت	اسم المدرسة	جنس المدرسة	عدد الملاك التعليمي		ت	اسم المدرسة	جنس المدرسة	عدد الملاك التعليمي	
			ذكور	اناث				ذكور	اناث
1-	البيارق	بنين	10	16	-21	البشير	بنين	16	18
2-	الاماني	بنات	0	16	-22	الفردوس	بنات	12	14
3-	تدمر	بنين	9	11	-23	كميت	بنين	11	16
4-	دجلة	بنات	0	14	-24	الضياء	بنات	0	24
5-	زنوبيا	بنات	0	32	-25	المدائن	بنات	0	12
6-	القاسم (عليه السلام)	بنات	0	24	-26	الربيع	بنين	9	9
7-	موسى بن نصير	بنين	16	2	-27	البقاع	بنات	0	14
8-	المهند	مختلطة	14	6	-28	العمادية	بنات	0	11
9-	الضياء	بنين	15	14	-29	الهادي	بنات	0	29
10	المدائن	بنين	11	4	-30	الفردوس	بنات	0	30
11	الدوحة	بنين	15	0	-31	كميت	بنات	0	34
12	الربيع	بنات	0	13	-32	طارق بن زياد	بنين	11	4
13	البقاع	بنين	14	0	-33	طارق بن زياد	بنات	0	12
14	العمادية	بنين	12	0	-34	إرادة الحياة	مختلطة	13	4
15	ابن الاثير	مختلطة	12	12	-35	مروج الذهب	مختلطة	10	6
16	الفارابي	مختلطة	14	2	-36	الديار	مختلطة	6	7
17	رموز الوطن	مختلطة	5	6	-37	الحسين	مختلطة	8	5
18	القدس	مختلطة	8	8	-38	الشهيد منتظر	مختلطة	11	1
19	السواقي	مختلطة	15	3	-39	النبي نوح	بنين	16	2
20	الهادي	بنين	7	19	-40	مجد الاسلام	بنين	10	7
41	الطيبات	بنات	0	19	-75	ربوع الوطن	بنين	15	4
42	شهداء القاسم	بنين	19	7	-76	ربوع الوطن	بنات	0	19
43	شهداء القاسم	بنات	0	21	-77	دار الحكمة	مختلطة	12	0
44	الرقيب	مختلطة	8	3	-78	الإشراق	مختلطة	10	0
45	النقاء	مختلطة	14	19	-79	التوحيد	مختلطة	7	1
46	جبل عامل	بنين	17	6	-80	زمزم	مختلطة	12	5
47	ابو الاحرار (عليه السلام)	بنات	0	21	-81	شهداء الطبيعة	مختلطة	10	1
48	السيدة تكتم (عليها السلام)	بنات	0	18	-82	الحسين بن روح (رض)	مختلطة	11	0

## Appendices

0	9	بنين	جناحة	-83	16	8	بنين	الذاكرين	9-
13	8	بنين	الوركاء	-84	16	0	بنات	الدوحة	50
14	0	بنات	البتول	-85	3	9	مختلطة	محمد تقي الجلاي	51
2	9	بنين	ام الربيعين	-86	24	0	بنات	جبل عامل	52
6	14	بنين	الصحابه	-87	6	8	مختلطة	قاسم العطاء	53
0	16	بنين	الجزائر	-88	1	8	مختلطة	الوادي الخصيب	54
14	12	مختلطة	سوق دوهان	-89	1	8	مختلطة	الشهيد فدعم عسل الجنابي	55
6	13	بنين	الإبراهيمية	-90	5	5	مختلطة	الخطيب	56
14	0	بنات	جناحة	-91	0	14	مختلطة	الوفاء	57
19	0	بنات	الوركاء	-92	0	15	بنين	الوسامة	58
5	9	بنين	البتول	-93	10	11	بنين	الشهيد السبعائي	59
13	0	بنات	ام الربيعين	-94	0	15	مختلطة	الهدى	60
19	0	بنات	الصحابه	-95	0	11	بنين	الاحرار	61
14	0	بنات	الجزائر	-96	5	17	مختلطة	الامام عون (عليه السلام)	62
21	0	بنات	الإبراهيمية	-97	3	14	مختلطة	الحضر	63
0	11	مختلطة	المودة	-98	5	6	مختلطة	الشهباء	64
3	13	مختلطة	الأولياء	-99	2	18	مختلطة	الحسينية	65
5	7	مختلطة	المباهلة	-100	2	8	مختلطة	التأخي	66
0	10	مختلطة	المعارف	-101	15	0	بنات	الوسامة	67
0	12	مختلطة	اهل التقى	-102	19	0	بنات	الشهيد السبعائي	68
5	7	مختلطة	محسن الخزاعي	-103	12	0	بنات	الاحرار	69
					0	13	مختلطة	النجف	70
					0	15	مختلطة	الانهار	71
					3	11	مختلطة	الاطياف	72
					0	10	مختلطة	وليد الكعبة	73
					2	13	مختلطة	وطن النجوم	74

## Appendices

### Questionnaire

صفحة موافقة المبحوث

بسم الله الرحمن الرحيم

وزارة التعليم العالي والبحث العلمي

جامعة بابل/كلية التمريض

قسم صحة نفسية وعقلية/دراسات عليا(ماجستير)



### (Knowledge and Attitudes among Primary School Teachers Regarding an Attention Deficit /Hyperactivity Disorder)

استاذ/استاذتي المحترم/ة:.....

نضع بين يديكم الكريمة استمارة الاستبيان المخصصة لإنجاز دراستنا الموسومة ( معارف واتجاهات معلمي المرحلة الابتدائية المتعلقة باضطراب نقص الانتباه وفرط الحركة).

إن مشاركتكم في هذه الدراسة ذات قيمة كبيرة، فالرجاء اختيار الإجابة التي تحدد ما تشعرون به بالفعل، علماً أنه لا توجد إجابة صحيحة وأخرى خاطئة، وإنما إجاباتكم تعد صحيحة فقط طالما تعبر عن حقيقة شعوركم تجاه ما تحمله العبارة. الرجاء عدم وضع أكثر من علامة أمام العبارة الواحدة مع التأكد من عدم ترك أي عبارة بدون إجابة، علماً ان الاستبانة بدون اسم وسوف نتعامل مع إجاباتكم بخصوصية وسرية تامة وتستعمل الاستبانة لغرض البحث العلمي فقط.

( يرجى التحقق من أنكم أجبت على كافة الأسئلة )

.....مع فائق الشكر والتقدير لتعاونكم وإسنادكم للباحث.....

الباحثة

رفل علي محمد حسن

كلية التمريض/جامعة بابل

ماجستير/صحة نفسية وعقلية

2022-2023 ميلادي

1444 هجري

APPENDIX (C)

Arabic  
Questionnaire

الجزء الاول: أ- المعلومات الشخصية:

- 1-العمر:  سنة.
- 2-الجنس:  ذكر  انثى
- 3-السكن:  ريف  حضر .
- 4- الحالة الاجتماعية:  اعزب/عزباء  متزوج/ة  مطلق/ة  ارملة
- 5-المستوى التعليمي:  دبلوم او اقل  بكالوريوس  شهادة عليا(ماجستير او دكتوراه) .
- 6-سنوات الخبرة:  .
- 7-ماالصف الذي تدرسه؟  .
- 8- ما التخصص الذي تدرسه؟  .

ب-مصادر المعلومات والمعرفة حول اضطراب نقص الانتباه وفرط الحركة:

- 1- هل لديك معلومات كافية عن اضطراب نقص الانتباه وفرط الحركة ؟ نعم  كلا
- 2- هل سبق ان سمعت أو قرأت عن اضطراب نقص الانتباه وفرط الحركة ؟ نعم  كلا
- 3-هل سبق ان درّست طلاب لديهم اضطراب نقص الانتباه وفرط الحركة ؟نعم  كلا
- 4- هل حضرت دورات عن اضطراب نقص الانتباه وفرط الحركة ؟ نعم  كلا
- 5- هل لديك احد افراد العائلة او صديق لديه احد مصاب باضطراب نقص الانتباه وفرط الحركة ؟  
نعم  كلا

## Appendices

6- في حالة وجود طالب معه اضطراب نقص الانتباه وفرط الحركة في الصف, ما الإجراء الذي سوف تأخذه؟

تحويله الى طبيب نفسي.

تحويله الى اخصائي علم نفس.

تبليغ الاهل.

تبليغ ادارة المدرسة.

لا افعل شيء.

اعمل شيء اخر(ما هو).

7- ماهو مصدر المعلومات التي حصلت عليها عن اضطراب نقص الانتباه وفرط الحركة ؟

الكتب ومقالات متخصصة.

وسائل الاعلام (الراديو, التلفزيون , صحيفة, مجلة).

الإنترنت.

المؤتمرات وفي دورات التدريب.

المتخصصين(الطبيب النفسي, اخصائي علم نفس).

اشخاص اخرين ( الاصدقاء, افراد الاسرة).

الجزء الثاني: معارف معلمي المرحلة الابتدائية المتعلقة باضطراب نقص الانتباه وفرط الحركة:

كلا(1)	نعم(0)	العبارات
		المجال الاول: المعلومات العامة
		1-تشير معظم الدراسات الى ان اضطراب نقص الانتباه وفرط الحركة يحدث في حوالي 15% بالأطفال في سن المدرسة.
		2-الاطفال الذين يعانون من اضطراب نقص الانتباه وفرط الحركة يطيعون أمهاتهم اكثر من اباؤهم.
		3-عند تشخيص اضطراب نقص الانتباه وفرط الحركة , يجب ان تكون الاعراض موجودة قبل سن السابعة من العمر.
		4-ينتشر هذا المرض بين الاهل من الدرجة الاولى (اي الاب, الام) اقل من بقية الناس.
		5-اعراض الاكتئاب موجودة عند الاطفال(اضطراب نقص الانتباه وفرط الحركة) اقل من غيرهم الذين لا يعانون من(اضطراب نقص الانتباه وفرط الحركة).
		6-معظم الاطفال الذين يعانون من اضطراب نقص الانتباه وفرط الحركة

## Appendices

		يتخلصون من اعراضهم مع بداية سن البلوغ.
		7-تقليل السكريات او المواد الحافظة من الاغذية يفيد في تقليل اعراض اضط نقص الانتباه وفرط الحركة.
		8-يعاني الاطفال المصابون باضطراب نقص الانتباه وفرط الحركة من المزيد من المشاكل في المواقف الجديدة.
		9-طبيب الاطفال فقط يمكن ان يشخص اضطراب نقص الانتباه وفرط الحركة.
		10-يصيب هذا المرض الجنسين (الاولاد, البنات) بالتساوي.
		11- الأطفال المصابون باضطراب نقص الانتباه وفرط الحركة يتمتعون بقدرة أكبر على التمييز عن الأطفال غير المصابين باضطراب نقص الانتباه وفرط الحركة في وضع اللعب الحر أكثر من بيئة الفصل الدراسي.
		12-الاطفال الذين يعانون من اضطراب نقص الانتباه وفرط الحركة يكون اداء المدرسي قوياً.
		13-اضطراب نقص الانتباه وفرط الحركة من المحتمل ان لا يكون وراثياً.
		14-الاطفال الذين يعانون من اضطراب نقص الانتباه وفرط الحركة غالباً يأتون من بيئة منزلية مفككة وغير ملائمة.
		15- ليس من الممكن تشخيص شخص بالغ باضطراب نقص الانتباه وفرط الحركة.
		<b>المجال الثاني: تشخيص وأعراض</b>
		16- انتباه الطفل لا يتشتت عند حصول محفزات الخارجية.
		17-احد اعراض نقص الانتباه وفرط الحركة هو اداء الاخرين جسدياً.
		18-الاطفال الذين يعانون من اضطراب نقص الانتباه وفرط الحركة يشعرون بالملل وعدم الراحة عند جلوسهم.
		19-الاطفال المصابون باضطراب نقص الانتباه وفرط الحركة لديهم شعور عالي بتقدير الذات او الشعور بالعظمة.
		20-الاطفال الذين من نقص الانتباه وفرط الحركة لديهم في كثير من الاحيان تاريخ من السرقة او تدمير أشياء الاخرين.
		21-هناك مجموعة واحدة من اعراض اضطراب نقص الانتباه وفرط الحركة: اما عدم الانتباه او فرط النشاط او الحركة.
		22-عند تشخيص اضطراب نقص الانتباه وفرط الحركة , يظهر على الطفل الاعراض ذات الصلة في محيط واحد فقط ( المنزل ,او المدرسة).
		23- لا يواجه الأطفال المصابون باضطراب نقص الانتباه وفرط الحركة صعوبات في تنظيم المهام والأنشطة.
		<b>المجال الثالث: العلاج</b>
		24-العلاج النفسي الفردي عادة ما يكون كافياً لعلاج معظم الاطفال المصابين باضطراب نقص الانتباه وفرط الحركة.
		25-لا يعتبر اضطراب نقص الانتباه وفرط الحركة مشكلة خطيرة ولا يحتاج الى علاج.
		26-ليس من الضروري ان يكون المعلم على علم ودراية بالأطفال المصابين باضطراب نقص الانتباه وفرط الحركة في الصف.
		27-ان تدريب الوالدين والمعلمين على التعامل مع الطفل المصاب

## Appendices

		باضطراب نقص الانتباه وفرط الحركة لا يكون فعالاً عندما يقترن مع العلاج الدوائي.
		28-العقاب هو العلاج الأكثر فعالية للحد من اعراض نقص الانتباه وفرط الحر
		29-ان سبب اضطراب نقص الانتباه وفرط الحركة يحدث بصورة كبيرة نتيجة سوء معاملة الوالدين.
		30-عند إنهاء العلاج الطفل المصاب باضطراب نقص الانتباه وفرط الحركة, فمن النادر ان تعود الاعراض مرة أخرى.

### الجزء الثالث: اتجاهات معلمي المرحلة الابتدائية حول اضطراب نقص الانتباه وفرط الحركة:

العبارات	اتفق بشدة (1)	اتفق (2)	محايد (3)	لا اتفق (4)	لا اتفق بشدة (5)
1-اضطراب نقص الانتباه وفرط الحركة هو اضطراب سلوكي لا يعالج بالأدوية.					
2-الأطفال الذين لا يستطيعون الجلوس ثابتين في الصف ببساطة يحتاجون ان يكونوا منضبطين أو أن يتم عقابهم.					
3-اشعر بالإحباط عند تدريس الأطفال الذين يعانون من اضطراب نقص الانتباه وفرط الحركة.					
4-اضطراب نقص الانتباه وفرط الحركة هو مشكلة تربوية.					
5-عندما يكون لدي طفل يعاني من نقص الانتباه وفرط الحركة في الصف يؤثر على تدريس					
6-يجب أن يكون تعليم الطفل الذي يعاني من نقص الانتباه وفرط الحركة يكون من قبل معلمي التربية الخاصة حصراً.					
7-معظم التلاميذ المصابين باضطراب نقص الانتباه وفرط الحركة يؤثران تأثيراً سلبياً في الصف.					
8-لا ينبغي أن يدرس الأطفال الذين يعانون من اضطراب نقص الانتباه وفرط الحركة في المدا الاعتيادية.					
9-لا يحتاج المعلمون إلى وقت إضافي مع الطلاب الذين يعانون من نقص الانتباه وفرط الحركة أكثر من غيرهم.					
10-وجود طفل يعاني من نقص الانتباه وفرط الحركة يؤثر سلباً في تعليم الأطفال الآخرين.F					
11-المصابون باضطراب نقص الانتباه وفرط الحركة لا يمكن تغيير سلوكهم.					

## Appendices

				12-الأطفال المصابون بنقص الانتباه وفرط الحركة يرغبون في أتباع القواعد والقوانين
				13-الدمج بين الدواء وإدارة السلوك ليس الأفضل لعلاج نقص الانتباه وفرط الحركة.
				14-المشاكل العائلية أو اضطراب العلاقة الزوجية لا تساهم في اضطراب نقص الانتباه وفرط الحركة لدى الطفل.
				15-الطفل الذي يعاني من اضطراب نقص الانتباه وفرط الحركة من الصعب التعامل معه في الصف.
				16-الأطفال الذين يعانون من اضطراب نقص الانتباه وفرط الحركة هم أكثر عرضة للتغيب عن المدرسة والهروب.
				17- الطلاب المصابون باضطراب نقص الانتباه وفرط الحركة لا يحتاجون إلى الدعم النفس
				18-معدل الذكاء لدى الأطفال المصابين باضطراب نقص الانتباه وفرط الحركة أقل من الأطفال غير المصابين باضطراب نقص الانتباه وفرط الحركة.
				19-يواجه الأطفال الذين يعانون من اضطراب نقص الانتباه وفرط الحركة من صعوبات أقل في علاقاتهم بزملائهم.
				20-الطفل الذي يعاني من اضطراب نقص الانتباه وفرط الحركة يعطى واجب بيتي أكثر من غيره.

APPENDIX (C)



**Part 1:A- socio demographic data:**

1-Age:  years old.

2-Sex :Male  female .

3 -Residential area: Urban  Rural .

4 -Marital status: Single  Married  Divorce  Widow

5-Educational level: Diploma or less  Bachelor  Post graduate

6 -Working experience (years):  year.

7 -Teaching grade

8- Teaching specialty  .

**B- Sources of information about ADHD:**

1 -Do you have enough information about Attention deficit hyperactivity disorder? Yes  No .

2 -Have you ever heard or read about Attention deficit hyperactivity disorder? Yes  No .

3 -Have you ever taught to students with Attention deficit hyperactivity disorder? Yes  No .

4- Do you attended courses about Attention deficit hyperactivity disorder? Yes  No .

## Appendices

5 -Do you have a child with Attention deficit hyperactivity disorder in your family or friend? Yes  No .

6 -In case of presence of a student with Attention deficit hyperactivity disorder in the class, what action would you take?

Referring to psychiatrist.

Referring to psychologist .

Informing the parents .

Informing the school authorities.

No action.

Other actions\_\_\_\_\_

7 -From what sources do you obtain information about Attention deficit hyperactivity disorder?

Books and specialized articles .

Media (radio, T.V, newspaper, magazines, etc).

Internet.

Conferences and in-service trainings .

Specialists (psychiatrist and psychologists).

Others (friends, family members, etc.).

### **Part2:Knowledge of Attention Deficit Disorders Scale (KADDS):**

Paragraphs	Yes(0)	No(1)
<b>Domain1.General information:</b>		
<b>1-Most estimates suggest that Attention deficit hyperactivity disorder occurs in approximately 15% of school age children. F</b>		
<b>2-Children with ADHD are typically more compliant with their Mothers than with their Fathers .F.</b>		
<b>3- In order to be diagnosed with ADHD ,the child's symptoms must have been present before age</b>		

## Appendices

<b>seven. F.</b>		
<b>4- ADHD is less common in the 1st degree biological relatives (i.e. mother ,father) of children with ADHD than in the general population .F</b>		
<b>5- Symptoms of depression are found less frequently in children with ADHD than in children without ADHD. F</b>		
<b>6-Most children with ADHD "outgrow" their symptoms by the onset of puberty and subsequently function normally in adulthood .F</b>		
<b>7-Reducing dietary intake of sugar or food additives is generally effective in reducing the symptoms of ADHD.F</b>		
<b>8- Children with ADHD generally experience more problems in novel situations than in familiar situations .F</b>		
<b>9-There are specific physical features which can be identified by doctors. There are specific physical features which can be identified by medical doctors (e.g. pediatrician) in making a definitive diagnosis of ADHD.F</b>		
<b>10- In school age children , the prevalence of ADHD in males and females is equivalent .F</b>		
<b>11- Children with ADHD are more distinguishable from children without ADHD in a free play situation than in a classroom setting. F</b>		
<b>12- The majority of children with ADHD evidence some degree of strong school performance in the elementary school years .F</b>		
<b>13- ADHD children have not a biological and genetic predisposition. F</b>		
<b>14- Children with ADHD often come from a disorganized and inappropriate home environment. F</b>		
<b>15- It isn't possible an adult to be diagnosed with ADHD. F</b>		
<b>Domain2. Symptoms/Diagnosis of ADHD:</b>		
<b>16- Children with ADHD aren't distracted by extraneous stimuli. F</b>		
<b>17- one symptom of children with ADHD is that they have been Physically cruel to other people. F</b>		
<b>18- Children with ADHD often fidget or squirm in</b>		

## Appendices

their seats. F		
19- It is common for children with ADHD to have an inflated sense of self-esteem or grandiosity. F		
20- Children with ADHD often have a history of stealing or destroying other people's things. F		
21- Current wisdom about ADHD suggests one clusters of symptoms: either of inattention or consisting of hyperactivity. F		
22- In order to be diagnosed as ADHD , a child must exhibit relevant symptoms in one setting only (e.g ,home or school).F		
23- Children with ADHD have not difficulties organizing tasks and activities. F		
<b>Domain3.Treatment of ADHD:</b>		
24- Individual psychotherapy is usually sufficient for the treatment of most children with ADHD.F		
25- ADHD is not a serious problem and does not need to be management. F		
26- Teachers should not be aware of ADHD and ADHD children in the class. F		
27- Parent and teacher training in managing a child with ADHD aren`t generally effective when combined with medication treatment. F		
28- Treatments for ADHD which focus primarily on punishment have been found to be the most effective in reducing the symptoms of ADHD.F		
29- Current research suggests that ADHD is largely the result of ineffective parenting skills .F		
30- When treatment of a child with ADHD is terminated ,it is rare for the child's symptoms to return. F		

### **Part3:Attitudes of primary school teachers concerning ADHD:**

Paragraphs	Strongly agree(1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly disagree (5)
1- ADHD is a behavioral disorder that should not be treated with medication .F					
2- Children who cannot sit still in class simply need to be disciplined or punished. F					

## Appendices

---

<b>3- I would feel frustrated having to teach an ADHD. F</b>					
<b>4- ADHD is a legitimate educational problem. F</b>					
<b>5- Having an ADHD child in my class would disrupt my teaching. F</b>					
<b>6- DHD children should be taught by special education teachers. F</b>					
<b>7- Most students with ADHD do really disrupt classes that much. F</b>					
<b>8- Children with ADHD shouldn`t be taught in the regular school system. F</b>					
<b>9- The extra time teachers spend with ADHD students is at the expense of students without ADHD. F</b>					
<b>10- Other students do not learn as well as they should when there is an ADHD child in the class. F</b>					
<b>11- ADHD children cannot change the way they behave. F</b>					
<b>12- ADHD children misbehave because they do not like following rules. F</b>					
<b>13- Combination of medication and behavior management isn`t best for treating ADHD. F</b>					
<b>14- Family problems or marital disorder doesn`t contribute to a child`s ADHD. F</b>					
<b>15- Students with ADHD are just as difficult to manage in the classroom as any student. F</b>					

## Appendices

---

<b>16- ADHD children are at a higher risk of truancy and escaping. F</b>					
<b>17- ADHD children doesn't need psychological support. F</b>					
<b>18- ADHD children's IQ is less than that of non-ADHD children. F</b>					
<b>19- ADHD children experience less difficulties in their relations with their colleagues. F</b>					
<b>20- ADHD children should receive more homework than others. F</b>					

APPENDIX (D)

Panel of Experts

قائمة بأسماء خبراء الاستبانة:

ت	اسم الخبير	اللقب العلمي	الاختصاص	مكان العمل	سنوات الخبرة
1.	د. سجاد هاشم محمد	أستاذ	تمريض صحة نفسية وعقلية	جامعة بابل/ كلية التمريض	40
2.	د. سلمى كاظم جواد	أستاذ	تمريض صحة مجتمع	جامعة بابل/ كلية التمريض	38
3.	د. أمين عجیل ياسر	أستاذ	تمريض صحة المجتمع	جامعة بابل/ كلية التمريض	37
4.	د. نهاد محمد الدوري	أستاذ	تمريض أطفال	جامعة بابل/ كلية التمريض	35
5.	د. سحر ادهم علي محمد العبيدي	أستاذ	تمريض بالغين	جامعة بابل/ كلية التمريض	34
6.	د. ناجي ياسر سعدون	أستاذ	تمريض صحة مجتمع	جامعة بابل/ كلية التمريض	33
7.	د. عبدالسلام جودت جاسم	أستاذ	تربية وعلم نفس	جامعة بابل/ كلية التربية الاساسية	31
8.	د. أمير كاظم حسين عبود	أستاذ	طب مجتمع	جامعة بابل/ كلية الطب	10
9.	د. كريم رشك ساجت	أستاذ مساعد	تمريض صحة نفسية وعقلية	جامعة بغداد/ كلية التمريض	20
10.	د. حيدر الحدراوي	أستاذ مساعد	تمريض صحة نفسية وعقلية	جامعة الكوفة/ كلية التمريض	14
11.	د. قيس اسماعيل كاظم جواد عجام	أستاذ مساعد	طب أسرة	جامعة بابل/ كلية الطب	14
12.	د. قحطان قاسم محمد	أستاذ مساعد	تمريض صحة نفسية وعقلية	جامعة بغداد/ كلية التمريض	14
13.	د. علي أحمد الحطاب	أستاذ مساعد	تمريض صحة نفسية وعقلية	جامعة بابل/ كلية التمريض	12
14.	د. حيدر طارق	أستاذ مساعد	تربية وعلم نفس	جامعة بابل/ كلية التربية الاساسية	10
15.	د. مزهر خليف حسوني سلمان	مدرس دكتور	تمريض صحة نفسية وعقلية	جامعة ميسان/ كلية ال المنارة للعلوم الطبية	19

## Appendices

### APPENDIX (E)

and Scientific Research  
University of Babylon  
college of Basic Education

جمهورية العراق  
وزارة التعليم العالي والبحث العلمي  
جامعة بابل  
كلية التربية الاساسية

Ref. No.:  
Date: / /

العدد: ٨٩٠٢  
التاريخ: ٢٠٢٣/٦/١٧

جامعة بابل / كلية التمريض  
الواردة  
العدد / ١٥٤٠  
التاريخ ٢٠٢٣/٦/١٨

م/ تقويم لغوي

نهديكم اطيب التحيات ...

كتابكم ذو العدد ٢١٠٤ في ٢٠٢٣/٥/٣٠ نعيد اليكم رسالة طالبة الدراسات العليا /  
الماجستير (رغل علي محمد حسن) الموسومة بـ ( معارف واتجاهات معلمي المرحلة الابتدائية  
المتعلقة باضطراب نقص الانتباه وفرط الحركة ) بعد تقويمها لغوياً واسلوبياً من قبل ( أ. م . نادية  
علي اكبر) وهيصالحة للمناقشة بعد الاخذ بالملاحظات المثبتة على متنها.

...مع الاحترام ...

المرفقات/  
- رسالة الماجستير  
- اقرار المقوم اللغوي.

أ.د. فراس سليم حياوي  
معاون العميد للشؤون العلمية  
٢٠٢٣/٦/١٧

رئيس اللجنة  
٢٠٢٣/٦/١٧

نسخة منه الى/  
- مكتب السيد العميد المحترم ... للتفضل بالاطلاع مع الاحترام  
- أ.م. نادية علي اكبر  
- الشؤون العلمية  
- الصادرة

زيب//

STARS  
www.uobabylon.edu.iq

العراق - بابل - جامعة بابل  
بداية الجامعة : ٠٠٩٦٤٧٢٣٠٠٠٣٥٧ : ١  
المعاون العلمي ١١٨٨  
المعاون الاداري ١١٨٩  
وطني : ٠٧٢٣٠٠٣٥٧ : ١  
امنية : ٠٧٦٠١٢٨٨٥٦٦ : ١

basic@uobabylon.edu.iq

## الخلاصة

يؤثر اضطراب نقص الانتباه وفرط الحركة على النمو الاجتماعي والفكري للأطفال الصغار وكذلك على رفاهيتهم العامة في المدارس الابتدائية. وهو مرض عاطفي ومعرفي وسلوكي منتشر. يعد المعلمون ضروريين في تحديد اضطراب نقص الانتباه وفرط الحركة لأنهم غالبًا ما يتعاملون مع الطلاب في مجموعة متنوعة من الظروف. للحفاظ على بيئة تعليمية صحية، يجب على معلمي المدارس الابتدائية، في الأساس، تعزيز فهمهم ومواقفهم الإيجابية تجاه الطلاب الذين يعانون من اضطراب نقص الانتباه وفرط الحركة.

هدفت الدراسة إلى تقييم معارف واتجاهات معلمي المدارس الابتدائية نحو اضطراب نقص الانتباه وفرط الحركة، بالإضافة إلى معرفة العلاقة بين معارف واتجاهات معلمي المدارس الابتدائية نحو اضطراب نقص الانتباه وفرط الحركة. وأخيراً التعرف على العلاقة بين الخصائص الاجتماعية والديموغرافية (العمر، الجنس، الخ) ومعارف واتجاهات معلمي المدارس الابتدائية نحو اضطراب نقص الانتباه وفرط الحركة.

استخدمت الباحثة دراسة وصفية مقطعية في منطقة القاسم في محافظة بابل من عينة ملائمة غير احتمالية مكونة من (N= 225) معلماً. وقد تم توزيع هذه العينة على 20 مدرسة ابتدائية. تم جمع البيانات من خلال الاستبيان وتقنية التقرير الذاتي. تشتمل الاستبيان على ثلاثة أجزاء: 15 فقرة من الخصائص الاجتماعية والديموغرافية، و30 فقرة معرفية، و20 فقرة سلوكية. تم جمع البيانات في الفترة من 1 مارس إلى 15 أبريل 2023. ثم تم تقييمها إلكترونياً باستخدام برنامج مايكروسوفت أكسل وبرنامج الحزمة الإحصائية للعلوم الاجتماعية الإصدار 20.

تؤكد نتائج الدراسة أن المعلمين لديهم مستوى معرفي ضعيف (55.1%) واتجاهات محايدة (68.6%) تجاه اضطراب نقص الانتباه وفرط الحركة. كما توجد علاقة ارتباطية إيجابية بين معارف واتجاهات معلمي المدارس الابتدائية نحو اضطراب نقص الانتباه وفرط الحركة.

توصى الدراسة بأن هناك حاجة للمعلمين لتلقي التعليم والتدريب حول كيفية التعامل مع الأطفال المصابين باضطراب نقص الانتباه وفرط الحركة وتقديم العناية لهم. وكذلك انشاء دورات تدريبية تعليمية وحلقات دراسية وورش عمل مستمرة من قبل وزارة التربية للمعلمين، التي من شأنها أن تساعد في زيادة الاهتمام وتعزيز المواقف الإيجابية تجاه الأطفال المصابين باضطراب نقص الانتباه وفرط الحركة.



وزارة التعليم العالي والبحث العلمي

جامعة بابل / كلية التمريض

## معارف واتجاهات معلمي المرحلة الابتدائية المتعلقة باضطراب نقص الانتباه وفرط الحركة

رسالة مقدمة الى

مجلس كلية التمريض

كجزء من متطلبات نيل درجة الماجستير علوم في التمريض

تقدمت بها الطالبة

رفل علي محمد حسن

جامعة بابل  
بإشراف

أ.د. قحطان هادي حسين

تشرين الأول/ 2023 ميلادياً

ربيع الأول/1445هجرياً