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**Teachers' Awareness and Attitudes About Attention
Deficit Hyperactivity Disorder (ADHD) at Hebron
Governorate**

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**Teachers' Awareness and Attitudes About Attention
Deficit Hyperactivity Disorder (ADHD) at Hebron
Governorate**

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Thesis Approval

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Hyperactivity Disorder (ADHD) at Hebron Governorate**

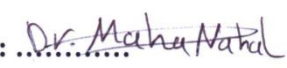
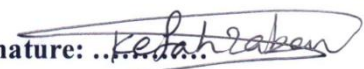
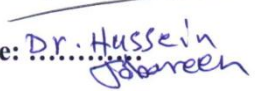
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Dedication

I dedicate my dissertation work to my family and friends. First, to my Parents souls. Second, I dedicate this thesis for my lovely husband who encouraged my success and supported this attempt. Third, I dedicate this for my sweet children. I hope they will understand one day why their mommy spent so much time working on the computer, and I plan to have more time with them now on.

Aseel Bassam Jibarah

Declaration

I certify that this thesis submitted for the degree of Master is the result of my own research, except where otherwise acknowledged and that this thesis or any part of the same has not been submitted for a higher degree to any other University or institution.

Name: Aseel Bassam Jibarah

Signed: 

Date: 20/12/2022

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First and foremost, I would like to praise Allah the Almighty, the Most Gracious, and the Most Merciful for His blessing given to me during my study and in completing this thesis. May Allah's blessing goes to His final Prophet Muhammad (peace be up on him), his family and his companions. I would like to express my gratitude and sincere thanks to **Dr. Maha Nahal** who has given me her valuable guidance, advice and encouragement so I could complete this thesis in time. Furthermore, who has given me guidance, corrections, comments, and suggestions in completing this thesis. My great honor is also bestowed upon all lecturers and staffs in nursing department for their invaluable knowledge and assistance they have given to me. Moreover, let me thank to the headmaster of schools, who has given me the opportunity and permission to conduct this study in their setting,

and also, the teachers who have taken part in completing this study.

My ultimate thanks is dedicated to my beloved **Mother, Father**, for their endless support, love, and prayer. I also would like to thank **my lovely husband** who encouraged my success and supported this attempt, **my sweet children** also **my siblings**; who have given me plentiful help and support in completing this thesis. Also, huge thanks go to my best friends in Department for every single moment of joy and sorrow we cherished together since the first time we stepped into our campus up to this very second. Also, I would

like to express my thanks to all my friends and all persons who helped me in completing this thesis whose names cannot be mentioned one by one for their help and support

Abstract

Background: Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder with a prevalence of 1.5% to 7.2% worldwide. The child with ADHD might experiences symptoms that alter behaviors, and the child becomes hyperactive, hostile, overexcited, impulsive, and inattentive. They could have a short fuse and act out in fits of rage when provoked. They also will lack the maturity of social skills and adaptability. Children with ADHD face unique difficulties in the areas of social and peer interactions, regulation of impulsive behavior and verbal expression, as well as difficulty in keeping on certain tasks and focusing attention. Teachers have a vital role in identifying and supporting children with ADHD in the school settings particularly in the classroom. Teachers can better understand the children needs for attention and behavioral support in the classroom if they engage in frequent, and one-on-one conversations with each student throughout the school day.

Aim: The study aimed to determine the level of knowledge and attitudes of elementary school

teachers toward ADHD in Hebron governorate.

Methodology: A descriptive cross-sectional study design was conducted in 2022, with a sample of 160 teachers that were conveniently recruited for this study. Data was collected by a self-administered questionnaire, that was distributed to the elementary school teachers in Hebron governorate. The questionnaire included personal information of the teachers; in

addition to questions about knowledge and attitude of the school educators concerning ADHD among elementary school children in Palestine.

Results: The average knowledge of the respondents about ADHD was 84.25 % of the sample

size. In regard to the teacher's knowledge about the Signs and symptoms of ADHD, 71% of them have high level of knowledge. Results showed that 61% of the school educators have high level of knowledge regarding general information related to ADHD. Moreover, 82% of the sample size have high level knowledge regarding treatment of ADHD. However, the teacher's attitude toward ADHD among children was low in which 49.8% of teachers have negative attitude toward the disorder. Results indicated a relationship between the knowledge and attitude of teachers about children with hyperactivity disorder and ADHD, as the value of statistical significance was (.003).

Conclusion: The findings show that teacher's knowledge of ADHD was not only competent, but much higher than that found in previous studies. In general, attitudes have a pessimistic outlook on working with children who have signs of ADHD. However, teachers who have gotten training on ADHD showed more positive attitudes and in-depth knowledge toward children with ADHD than those teachers who did not got a specialized training. The teacher's age, years of experience, training, and knowledge, all served as significant predictors of the level of teacher's knowledge.

Key words: attention deficit hyperactivity disorder (ADHD), Knowledge, Attitude, Teachers, Children, School.

وعي وموقف المعلمين من اضطراب فرط الحركة ونقص الانتباه في محافظة الخليل.

إعداد: أسيل بسام محمد جبارة

إشراف: د. مها نحال

ملخص

الخلفية: اضطراب نقص الانتباه / فرط النشاط (ADHD) هو اضطراب في النمو العصبي ينتشر في عينات المجتمع في مرحلة الطفولة ما بين 1.5% و 7.2% في جميع أنحاء العالم. يمكن لأعراض اضطراب فرط الحركة ونقص الانتباه التي يعاني منها الشخص أن تغير سلوكيات الطفل، حيث يكون الطفل مفرط النشاط، وعدائياً، ومتحمساً، ومندفعاً، وغافلاً. قد يكون لديهم فتيل قصير ويتصرفون في نوبات من الغضب عند استفزازهم. هناك نقص في النضج في المهارات الاجتماعية والقدرة على التكيف. يواجه الأطفال المصابون باضطراب فرط الحركة ونقص الانتباه صعوبات فريدة في مجالات التفاعلات الاجتماعية والأقران، وتنظيم السلوك الاندفاعي والتعبير اللفظي، وصعوبة الحفاظ على المهمة وتركيز الانتباه. يلعب المعلمون دوراً حيوياً في تحديد الطلاب المصابين باضطراب فرط الحركة ونقص الانتباه ودعمهم في الفصل الدراسي. يمكن للمدرسين أن يفهموا بشكل أفضل متطلبات طلابهم من الاهتمام والدعم السلوكي في الفصل الدراسي إذا شاركوا في محادثات فردية متكررة مع كل طالب على مدار اليوم الدراسي

المنهجية: أجريت دراسة وصفية مقطعية في عام 2022 ، مع عينة من 160 معلم تم توظيفهم بشكل ملائم لهذه الدراسة. تم جمع البيانات من خلال ورقة جمع البيانات، والتي تضمنت المعلومات الشخصية للمعلمين ؛ استبيانات المسح التي تم جمعها من عينة المشاركين تصف المعرفة والمعتقدات المتعلقة باضطراب فرط الحركة ونقص الانتباه في فلسطين.

النتائج: كان العدد الأكبر من المدرسين من الذكور (79) مدرسا ، وبلغ متوسط المعرفة 84.25% من حجم العينة، 71% من حجم العينة لديه مستوى عال من المعرفة فيما يتعلق بالأعراض، 61% من العينة لديهم معرفة عالية فيما يتعلق بالمعلومات العامة ، 82% من حجم العينة لديهم معرفة عالية المستوى فيما يتعلق بعلاج اضطراب فرط الحركة ونقص الانتباه ، 49.8% من المعلمين لديهم موقف سلبي تجاه اضطراب فرط الحركة ونقص الانتباه ، وهناك العلاقة بين معرفة وموقف المعلمين تجاه الأطفال المصابين باضطراب فرط الحركة واضطراب نقص الانتباه وفرط الحركة حيث بلغت قيمة الدلالة الإحصائية (0.003).

الخلاصة: اشارت نتائج الدراسة الى ان معرفة المعلمين باضطراب فرط الحركة ونقص الانتباه لم تكن كفؤة فحسب، بل كانت أعلى بكثير من تلك الموجودة في الدراسات والاستطلاعات السابقة لأقرانهم حول المعرفة. بشكل عام، تتمتع المواقف بنظرة تشاؤمية بشأن العمل مع الطلاب الذين يظهرون سلوكيات شبيهة باضطراب فرط الحركة ونقص الانتباه. المعلمون الذين تلقوا تدريبات حول اضطراب فرط الحركة ونقص الانتباه كانت لديهم نظرة أكثر إيجابية للطلاب الذين يعانون من الاضطراب وقد اظهروا معرفة عميقة أكبر حول أفضل طريقة لتعليمهم. اشارت النتائج الى ان عمر المعلم، وسنوات الخبرة، والتدريب، والمعرفة، كلها بمثابة تنبؤات مهمة لنوع معرفة المعلمين.

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List of abbreviations

ADHD Attention-deficit/hyperactivity disorder

APA: American Psychiatric Association

CD: conduct disorder

F: frequency

GCSE: Poor General Certificate of Secondary Education

LSD: Least significant differences

NHS: The National Health Service

NICE: national institute for health and care excellence

ODD: oppositional defiant disorder

RCTs: randomized controlled trials

DSM-5: Diagnostic and statistical manual of mental disorders. 5th ed.

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Chapter One:

The Introduction:

1.1 Background

Attention deficit/hyperactivity disorder (ADHD) is a neurodevelopmental disorder with a prevalence in childhood community samples between 1.5% and 7.2% worldwide, (Focus, 2013; Sayal et al., 2017). In Palestine ADHD combined type was reported in 4.4% of children according to parents reports and in 9.8% according to the teacher reports . ADHD combined type symptoms were higher in boys than in girls (Elumour & Thabet, 2014). Males are at a higher risk for developing ADHD if they exhibit symptoms of hyperactivity, impulsivity, and/or inattention across several contexts for at least 6 months (APA, 2013). Both genetic and environmental risk factors interact to produce the fundamental symptoms of ADHD, however, the degree to which each displays these symptoms varies across the population. However, even if a child does not fulfill all of the diagnostic criteria for ADHD, having a significant number of symptoms can still have negative effects (Faraone, 2015). There are three diagnostic categories of ADHD: predominantly inattentive (30% of diagnosed persons), primarily hyperactive/impulsive (10% of diagnosed adults), and mixed (roughly 60% of diagnosed individuals) (Reale et al., 2017). Children with the fundamental symptoms of ADHD may have distinct underlying neuropsychological profiles, despite the disorder being clinically conceived of as a single disorder. Within the same diagnostic category, the severity of symptoms and other challenges can vary considerably. Over time, our theoretical understanding of ADHD has grown. Barkley (1997) proposed that a lack of self-control and inability to self-regulate are the results of a deficit in inhibitory control mechanisms, which manifest as a loss of working memory, planning, and attentional

flexibility. One further explanation, called "delay aversion" (Barkley, 1997), is grounded in the fact that it has been seen that children with ADHD would rather have a smaller incentive right away than wait for a bigger reward later (Marco et al., 2009). Research shows that boys are three to five times more likely to be afflicted than girls, with frequency ranging from 5 to 10 percent among school-aged children worldwide. In Egypt, the estimated prevalence of ADHD was 5.4-8.7%, and it was 6.24%, in Jordan, and 16.4%, Saudi Arabia (Al-Omari et al., 2015; El-Nemr et al., 2015; Mohammed, 2019). According to the Diagnostic and statistical manual of mental disorders. 5th ed (DSM-5) there are three subtypes of ADHD: primarily inattentive, mainly hyperactive/impulsive, and combination. Research conducted in Egypt's Menoufia Governorate in 2014 indicated that 6.9% of primary school-aged children there had ADHD (El-Nemr et al., 2015).

The ADHD symptoms a person experiences could alter as they become older. The child is hyperactive, hostile, overexcited, impulsive, and attentive. They could have a short fuse and act out in fits of rage when provoked. There is a lack of maturity in social skills and adaptability (Datta, 2014). However, it is believed that organic, genetic, and environmental variables all have a role in the development of ADHD.

A child's vulnerability to developing ADHD symptoms is increased by several circumstances, including the presence of the disorder in the immediate family, particularly the father, a brother, or an uncle. Toxin or pharmaceutical exposure, birth defects, chronic otitis media, head trauma, meningitis, neurological infections, and mental illnesses such as affective disorders are also risk factors. In most cases, a diagnosis of ADHD is obtained after a patient is subjected to a comprehensive evaluation in a clinical setting (Hockenberry & Wilson, 2018).

According to the delay aversion theory, the main goal of the smaller-sooner preference is to avoid delay, and the basic symptoms of ADHD are represented (essentially) as a time-passing strategy in contexts where delay cannot be escaped or avoided, such as in the classroom. These hypotheses were put to the "head-to-head" test in a group of children diagnosed with ADHD, where it was discovered that both were true to various degrees; hence, the "dual route model" of ADHD was developed (Mies et al., 2018).

Between 30% and 70% of children with ADHD continue to experience symptoms throughout adulthood (Caye et al., 2016). High rates of co-occurring disorders and mental health concerns, including emotional disorders like depression and anxiety, have been seen in people with ADHD (Kuntsi et al., 2014). Children with ADHD have a higher risk of being economically disadvantaged, engaging in antisocial behaviors, being involved in criminal activity, and having a lower level of education than their peers (Cherkasova et al., 2021).

One of the most common mental health issues seen in pediatrics is ADHD. Between 3% and 10% of American and European school-aged youngsters are diagnosed with ADHD. The prevalence rates across the nation are about in line with those seen in the United States and Europe, at around 5% (Leijten et al., 2020). Academic, social, and emotional challenges have all been linked to ADHD (Harpin et al., 2016).

Developmentally inappropriate levels of impulsivity, hyperactivity, and inattention are the hallmarks of ADHD in children (American Psychiatric Association [APA], 2013). When children's self-control is put to the test, as it often is in the classroom, these signs become more noticeable (Amod et al., 2013). For a diagnosis of ADHD to be made, the aforementioned diagnostic symptoms must be present and persistent in at least two situations. Therefore, educators are crucial in giving physicians observational data

regarding student behaviors in the classroom (Schellack & Meyer, 2012). Teachers are frequently the first to suggest that a kid undergo psychological testing, thus understanding how well they are versed in the topic of ADHD is crucial to determining how effective they will be in spotting afflicted students. Teachers' understanding of and approach to students with ADHD is also proven to impact how those students behave in class (Prasetyo et al., 2021).

1.2 School-related difficulties

Most children attend regular schools, where they may experience challenges from the ADHD-related problematic behaviors. This can be frustrating for the child, the teacher, and the classmates (Slobodin & Masalha, 2020). Children's outcomes are affected by the classroom setting and teachers' attitudes and actions toward students with ADHD (Richardson et al., 2015). Children with ADHD face unique difficulties in the areas of social and peer interactions, regulation of impulsive behaviour and verbal expression, and difficulty keeping on task and focusing attention; however, the nature of the school setting in the UK, where children are often taught by one teacher, in large seated groups, clearly conflicts with these needs. There is a need for schools to be better able to support children with ADHD and for children to be better able to cope with school, which can lead to strained relationships between parents and the school. Advantages would accrue to the kid, their potential mainstream classroom educators, peers, and parents, and it would also lessen the need for and cost of special educational services (Mikami, Miller, & Lerner, 2019).

1.3 Treatment for children and young people with ADHD

Individuals with ADHD fall under the social and emotional mental health subset of the special education needs group (Department for Education and Department of Health and

Social Care, 2015). The 2018 NICE guideline for ADHD diagnosis and management recommends that if consent is provided, the physician should call the school to discuss the impact of the symptoms and "appropriate adjustments and environmental modifications" and communicate the child's treatment plan with the school. Organizations working together are encouraged by NICE to "launch and coordinate local training programmes, including the provision of training and information for teachers regarding the characteristics of ADHD and its fundamental behavioural treatment" (Mikami et al., 2019). As a result, it is the duty of the school to make any necessary adjustments to the student's physical space and to implement any prescribed treatments, including medication, for the student's condition. Therefore, it is essential to have an up-to-date understanding of the research base for therapies for children with ADHD in the educational setting. The two main types of ADHD treatment are pharmaceutical and nonpharmaceutical. There is limited evidence that pharmaceutical interventions improve long-term academic results or increase accuracy (number of correct answers), despite their moderate impact on academic productivity (number of tasks completed) (Kortekaas-Rijlaarsdam, Luman, Sonuga-Barke, Oosterlaan, & psychiatry, 2019).

Non-pharmacological therapies have been tried and studied in several settings, including the classroom, the home, and the clinic (Bikic, Reichow, McCauley, Ibrahim, & Sukhodolsky, 2017; Catalá-López et al., 2017). Non-pharmacological treatments for ADHD, it may be claimed, could have impacts on school-related results regardless of the setting in which they are provided. However, it is not safe to assume that the results of one intervention can be replicated in another context. For example, a program that works well at home may not be as successful at a public school. In fact, school-based interventions had the largest effect on 'general cognitive' outcomes, as well as the largest effect on behavioural outcomes, compared to non-school based interventions and parent training

interventions (but smaller effects than pharmacological or multimodal interventions). School-based therapies that target academic achievements are critical, given the correlation between ADHD and low educational attainment (Gaastra, Groen, Tucha, & Tucha, 2016).

Additionally, it has been shown that behavioural management interventions do not result in effects that generalize across settings (Evans, Owens, Wymbs, Ray, & Psychology, 2018), so it is recommended that interventions for ADHD that aim to impact on outcomes that occur in the school setting be implemented in the school setting. Consequently, this research will center on programs implemented in educational institutions. Multiple systematic reviews have examined the efficacy of non-pharmacological therapies for ADHD. In general, they show that core ADHD symptom improvement and other outcomes benefit from non-pharmacological therapies for ADHD (Bikic et al., 2017). Treatment results for core ADHD symptoms judged by the person closest to the therapeutic context (usually un-blinded parent evaluations) (Sonuga-Barke et al., 2013).

In light of the far-reaching consequences of ADHD, Daley et al. expanded their focus on the outcomes that could be improved through "behavioural" interventions, and they found statistically significant improvements in children's behaviour, social skills, and academic performance (Daley et al., 2018).

Modest gains in attention and productivity were reported for participants in a meta-analysis of ADHD training in organizational skills (Bikic et al., 2017). Non-pharmacological therapies have been tried and studied in several settings, including the classroom, the home, and the clinic (Bikic et al., 2017; Catalá-López et al., 2017). Non-pharmacological treatments for ADHD, it may be claimed, could have impacts on school-related results regardless of the setting in which they are provided. However, it is not safe to assume that

the results of one intervention can be replicated in another context. For example, a program that works well at home may not be as successful at a public school (Abikoff, 2009).

School-based therapies that target academic achievements are critical, given the correlation between ADHD and low educational attainment. Additionally, it has been shown that behavioural management interventions do not result in effects that generalize across settings so it is recommended that interventions for ADHD that aim to impact on outcomes that occur in the school setting be implemented in the school setting (Evans et al., 2018). Consequently, this research will center on programs implemented in educational institutions. Multiple systematic reviews have examined the efficacy of non-pharmacological therapies for ADHD. In general, they show that core ADHD symptom improvement and other outcomes benefit from non-pharmacological therapies for ADHD (Bikic et al., 2017; Daley et al., 2018; Sonuga-Barke et al., 2013).

Treatment results for core ADHD symptoms judged by the person closest to the therapeutic context (usually un-blinded parent evaluations) (Sonuga-Barke et al., 2013). In light of the far-reaching consequences of ADHD, Daley et al. expanded their focus on the outcomes that could be improved through "behavioural" interventions, and they found statistically significant improvements in children's behaviour, social skills, and academic performance (Daley et al., 2018). For children with ADHD, training in organizational skills showed very slight gains in inattentive symptoms and school performance, according to a meta-analysis (Bikic et al., 2017).

1.4 School-based non-pharmacological interventions

Well-established, effective treatments for elementary-aged children with ADHD include behavioral classroom management interventions such as routine establishment, opportunities to respond, praise, response to rule violations, token economies, and daily

report cards (Evans et al., 2018; Fabiano & Pyle, 2019). When paired with implementation supports like consultation that includes observation and performance feedback, these interventions have proved to have the greatest impact (Evans et al., 2018). As a matter of fact, elementary school children are the most prevalent target of behavioral classroom management interventions, perhaps because of the high levels of adult supervision, the prevalence of a single instructor throughout the day, and the simplicity of selecting salient rewards (Evans et al., 2018). Although interventions and implementation support for behavioral classroom management have been shown to be beneficial in research settings, their efficacy in the real world depends on whether or not they will be adopted and executed as intended.

As shown by research linking intervention integrity to student outcomes (DuPaul, Gormley, Laracy, & Clinics, 2014), low integrity lessens the positive effects that treatments could have on students. Unfortunately, it is common to observe low and extremely fluctuating levels of implementation fidelity (Harrison et al., 2020). For instance, (Fabiano & Pyle, 2019) discovered that only 24% of rule breaches committed by kids with or at risk for ADHD were appropriately reacted to by elementary school teachers. It would be very helpful to have a deeper comprehension of the aspects that can either hinder or aid in the widespread acceptance and fidelity of intervention strategies.

The effects of "academic," "contingency management," and "cognitive behavioural" therapies on children's symptoms and academic outcomes were investigated by DuPaul et al. (2012) in a school context. Research with within-subject and single-subject designs reported positive effects on symptoms and academic outcomes, but between-subject controlled trials, which were severely constrained by the small number of included studies ($n = 3$), did not. Interventions in public schools were more effective than those in summer

enrichment programmes or independent schools on academic outcomes (DuPaul, Eckert, & Vilardo, 2012). School-based treatments for ADHD have been found to be helpful in the short term, according to a previous review, with regards to reducing disruptive and boosting on-task behaviour and improving academic achievement. Numerous school-based non-pharmacological therapies ADHD have undergone randomized controlled trials (RCTs), but no systematic reviews exist to definitively recommend any one treatment regimen (Moore et al., 2019). The methodological limitations of studies are often the result of the practical difficulties in conducting randomized controlled trials (RCTs) of non-pharmacological treatments to the standards of pharmacological trials, which translates to results being tentative or studies being considered at risk of bias. Non-medication approaches to treating ADHD have been shown to be helpful, and there is reason to believe that they may offer additional benefits beyond those of medicine (Moore et al., 2019). However, existing systematic reviews and meta-analyses show that school-based psychosocial and behavioural treatments for ADHD can be successful. The issue lies in determining which intervention components lead to persistent improvement in the goal outcomes (Doulou & Drigas, 2022).

1.5 Statement of problem

The majority of a child's waking hours are spent at school, where they are in constant contact with their teachers. Teachers are crucial to the success of any school. Teachers may be expected to take action in the classroom if a student is diagnosed with ADHD and a treatment plan is developed. Teachers can better meet the needs of their students through the development of successful teaching, learning, and behavior management tactics provided they have a solid understanding of those needs (Ewe & Difficulties, 2019).

Today, ADHD is considered one of the most significant clinical and public health problems. It will affect the whole family by increasing the financial cost and stress on family of the affected child. It also has influences on the academic and professional profile of the affected child, causing poor effect on self-esteem and might cause complicated consequences upon the child's personality, health and behavior (APA, 2013). If children with ADHD left unrecognized or undiagnosed, then their behavioral management and follow-up will be much more difficult (APA, 2013). Therefore, it is important to emphasize the role of the health care providers and educators in observing the affected child at early stage of the disorder, for the purpose of protecting these children from adverse consequences.

Unfortunately, the available data about the Palestinian children with ADHD is scarce. No studies were found about the incidence, prevalence, causes, and correlates of ADHD among Palestinian children. Moreover, no studies were found about the teacher's knowledge and attitudes in Palestine, despite the frequent studies about children with ADHD worldwide (Catalá-López et al., 2017). This in fact might compound the psychological and behavioral profiles of such children (Khamis, 2006). Although teachers have a vital role in identifying and supporting students with ADHD in the classroom. They can understand the children's requirements for attention and behavioral support in the classroom if they engage in frequent, one-on-one conversations with each student throughout the school day (Al-Omari, Al-Motlaq, & Al-Modallal, 2015). Therefore, teachers should play a significant role in identifying and referring children with ADHD. This is because, they have the opportunities to watch the child's behaviors and compare them to those of children who do not have this disease (Flanigan, Climie, & Psychology, 2018). However, schools in Palestine are lacking the required policies and protocols that might help in the identification, prevention, and interventions needed for this disorder.

Absence of the screening procedures as well as the unavailability of the medical, developmental records for the school age children will complicate the condition and cause adverse impact on the affected children with ADHD in Palestine.

Poor General Certificate of Secondary Education (GCSE) performance is independently predicted by high levels of ADHD symptoms in early childhood (May et al., 2021). The National Health Service (NHS), the education system, the justice system, social services, and the economic loss of both parents of children with ADHD and the children themselves as they enter the workforce all bear the brunt of the poor outcomes related to ADHD (Narad et al., 2020).

While children with ADHD may struggle in the classroom, they might benefit from individualized instruction designed to address their specific requirements. children with ADHD can benefit greatly from a variety of interventions, particularly those aimed at helping those students who have difficulty expressing themselves verbally and nonverbally. Teachers' traits including patience, tolerance, and knowledge of ADHD greatly determine whether or not they use suitable gestures when instructing teachers who have ADHD. Positive classroom climates can also be fostered through teachers' vocal communication with students. Words have a significant impact on how we learn, both positively and negatively (Caye, Swanson, Coghill, & Rohde, 2019). Therefore, teachers must learn effective strategies for communicating with pupils who have ADHD. Teachers' self-efficacy and general health might benefit from receiving training in working with children who have ADHD (Jarque Fernández, Amado Luz, Oporto Alonso, & Fernández-Andújar, 2021). Teachers may benefit from increased knowledge, confidence, and motivation to teach and modify classroom management strategies for children with ADHD symptoms (Gaastra, Groen, Tucha, & Tucha, 2020). Results in academic and behavioral

results for children with ADHD may be influenced by teachers, according to studies (Zendarski et al., 2020). Teachers' awareness of ADHD is one such variable. The effectiveness of a teacher's intervention with a student may depend on the teacher's familiarity with the student's problem, familiarity with the intervention itself, and the student's willingness to participate in the intervention (Bolinger, Mucherah, Markelz, & Andrew, 2020). Unfortunately, many teachers don't receive the training they need to create and use successful interventions in the classroom (Mikami et al., 2022). The consequences of this ignorance could be severe. Concerns have been raised that teachers lack the necessary expertise to design and administer effective interventions for children with ADHD (Gaastra et al., 2020). To avoid unfavorable effects, they must be properly educated on how to communicate with and engage with children who have ADHD. Despite the importance of teachers knowing about ADHD, there has been little study of how teachers' knowledge, perspectives on intervention, experience, and tolerance levels affect the classroom management of students with ADHD. A teacher's approach to managing the classroom will likely reflect her or his personal values and style of leadership (Monteiro, Donham, & Klaib, 2022).

1.6 Significant of study

Teachers at school are often considered as the first point of contact between the children at school and their families. Accordingly, teachers serve an essential function in facilitating assessment and diagnosis by giving data on students' prior academic experiences, current academic standing, social connections, and daily routines.

However, to the best of our knowledge, no research has yet examined the exact knowledge of Palestinian teachers regarding ADHD, and there are serious gaps in their understanding of the disorder's treatment and underlying causes. The primary misconception about

ADHD among teachers is that sugar or nutrient-added drugs cause ADHD (Carroccia, 2020).

College students, teachers, psychologists, and researchers interested in teachers' understanding of and perspective on ADHD will find this study useful. In addition, educational researchers in Kazakhstan who want to help advance inclusive education practices in secondary schools might use the information gleaned from this study to their advantage. This study will help the Ministry of Education and health supervisors in schools to know the awareness and attitudes of teachers about ADHD and to conduct the necessary training courses for them. This study will serve as a database for future Palestinian researchers.

1.7 Aim of the study:

The main aim of the study is to determine the level of knowledge and attitudes of elementary school teachers toward ADHD in Hebron governorate.

1.8 Study objectives:

- To assess the extent of knowledge about ADHD among Elementary School Teachers in Hebron governorate of the West Bank/Palestine.
- To assess the attitudes of Elementary School Teachers toward ADHD in Hebron governorate of the West Bank/Palestine. .
- To examine whether the differences in socio-demographic characteristics of Elementary School Teachers will reflect their knowledge and attitudes toward ADHD in Hebron governorate.
- To assess the relationship between knowledge of Elementary School Teachers toward ADHD and their attitudes.

1.9 Research questions:

- To what Extent Elementary School Teachers are aware (level of knowledge) About Attention Deficit Hyperactivity Disorder ADHD?
- What are the attitudes of Elementary School Teachers about Attention Deficit Hyperactivity Disorder ADHD?
- Is there any relationship between knowledge and attitudes of the elementary school teachers toward ADHD?
- Is there any relationship between demographic data and knowledge and attitude of the elementary school teachers toward ADHD?

1.10 Definition of Terms

The following definitions, which are drawn from the reviewed literature, are used throughout the thesis:

Attention-Deficit/Hyperactivity Disorder. ADHD is a pattern of behavior that interferes with development and functioning. It is marked by inattention and/or hyperactivity-impulsivity (APA, 2013). It is neurologically based and makes for difficulty in controlling behaviors in school and social settings (Lerner & Johns, 2014).

Hyperactivity. More than typically appropriate movement or talking for a given circumstance (APA, 2013). Students may appear as if they are driven by a motor and move from activity to activity after brief periods of time (Lerner & Johns, 2014). Behaviors include: a) Fidgeting or squirming, b) excessive climbing or running when not appropriate, c) difficulty playing or engaging in activities quietly, and d) excessively talks.

Impulsivity. Defined in terms of ADHD as acting without thinking prior to initiation of action that may result in injury. It can reflect a desire for instant gratification or immediate

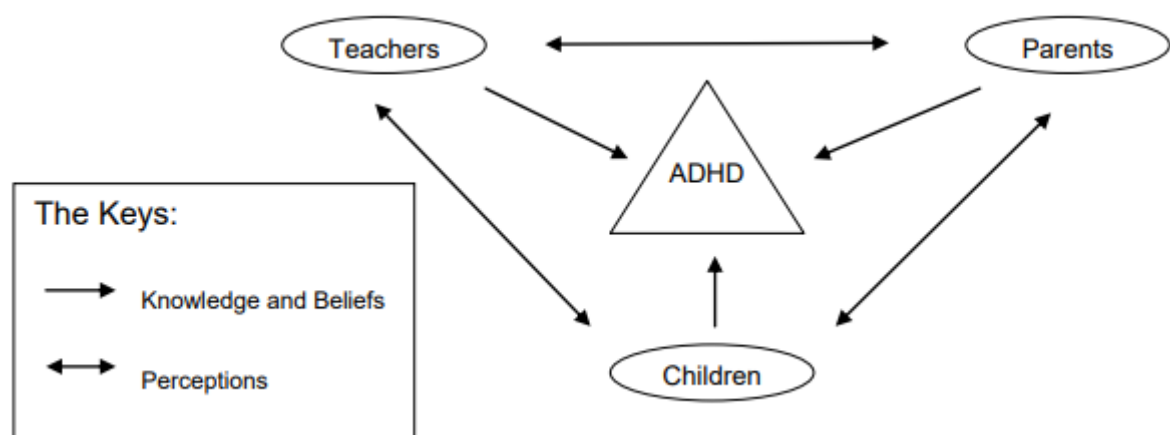
responsiveness. The behaviors can be socially intrusive and decisions are made without consideration of future consequence (APA, 2013).

Inattention. Losing focus after a short period of time, a lack of attention to organization, and giving up when a task becomes challenging. These behaviors are not the result of defiance or an inability to understand what is required (APA, 2013). Marked by behaviors such as a) making careless mistakes, b) difficulty maintaining attention to tasks or play, c) appearance of not listening when being spoken to, d) forgetful, and e) difficulty organizing tasks or activities.

1. **Knowledge:** Knowledge can be defined as awareness of facts or as practical skills, and may also refer to familiarity with objects or situations. Knowledge of facts, also called propositional knowledge, is often defined as true belief that is distinct from opinion or guesswork by virtue of justification (Zins & technology, 2007).

2. **Attitude** is a positive or a negative evaluation of ourselves or definite things such as ideas, people, or issues (Schwarz, 2007).

Figure 1. The relationship between knowledge and perceptions of the school teachers, parents and children toward ADHD.



Chapter Two:

Literature Review:

2.1 Introduction

This review of the research provides an overview of the literature on several different aspects of ADHD. Some of the themes deal with ADHD as a concept and related difficulties, while others address instructors' familiarity with and perspective on ADHD. Since there hasn't been a great deal of research into teachers' understanding of and perspective on ADHD, this analysis zeroes in on those nations where significant progress has been made in the area.

This chapter summarizes research findings from studies that surveyed teachers about their perspectives on ADHD. We'll start with a quick review of the background of inclusive education and a few examples of current activities in the field. Some of the worldwide regulations that protect the rights of students with special needs to receive an education in regular classrooms will be discussed here. Teacher understanding, acceptance, and management of teachers with ADHD.

2.2 Attention Deficit / Hyperactivity Disorder

A number of "new" diagnostic categories have emerged during the past decade to describe children who exhibit unambiguous evidence of certain deficits, even though the actual etiology has not been determined in these cases (Mittler, 2000). Some conditions that fit this description include dyslexia, ADD (with or without hyperactivity), autism, and Asperger's syndrome. During the Salamanca Conference in 1994, world leaders were reminded of the importance of including children with special needs in national plans to increase school enrollment (Mittler, 2000). Because of the example set by UNESCO,

several education ministries around the world have decided to take on the challenge of educating children who have been historically marginalized by placing them in mainstream classrooms with the necessary resources.

However, despite its prevalence, ADHD has received a disproportionate amount of research attention compared to other diseases affecting children. ADHD is a chronic neurodevelopmental condition characterized by excessive and inappropriate levels of inattention and hyperactivity/impulsivity for a person's age. According to the American Psychiatric Association's (2013) definition, people with ADHD have abnormally high levels of inattention and/or hyperactivity-impulsivity that last for at least six months. The hallmarks of ADHD are the inability to focus, excessive movement, and spontaneous behaviour. Social functioning (Kuntsi et al., 2014) and academic performance are just two areas where these symptoms might have a negative impact (Frazier, Youngstrom, Glutting, & Watkins, 2007). Some neurological abnormalities can lead to impulsivity, hyperactivity, and inattention. Many parents of children with ADHD say they've heard from teachers, clinicians, and others that their child is intelligent but struggles in school due to a lack of concentration, inconsistent effort, disorganized habits, and forgetfulness (Shapiro & Huang-Pollock, 2019). The inability to execute may be avoided if the distinction between "not knowing" and "not doing" is understood. In order to create an evidence-based clinical practice guideline for the treatment of the school-aged child with ADHD, the American Academy of Pediatrics' Committee on Quality Improvement, Subcommittee on ADHD, examined and analyzed the current literature. These studies compiled a wealth of data on the various ADHD therapies and how they affected academic performance and social integration in the classroom. Psychiatric studies show that children with ADHD need specialized educational support. The goal of inclusive education is to personalize the learning experience for each individual learner. Can pupils with ADHD benefit from the

district's efforts to mainstream them? Teachers' views on including children with ADHD in regular classrooms. Can we say that the opinions of teachers in the northwest and southeast differ? How do teachers integrate students with ADHD into regular classrooms? The theories for this study come from trying to answer these questions.

2.3 Identification of ADHD

Today, it is not enough to have the symptoms that suggest ADHD, hence the majority of children who may have ADHD go undiagnosed or are given the wrong diagnosis in many countries (APA, 2013). It's possible that some youngsters will exhibit symptoms of ADHD, but it's also possible that these symptoms are typical of a child's age and developmental level. Yet the mere presence of symptoms is not the most important factor in diagnosing ADHD. To be diagnosed with ADHD, it must be shown that six or more symptoms of inattention or hyperactivity/impulsivity have been present before the age of 12 and have persisted for at least six months (APA, 2013). ADHD symptoms were also shown to (a) persist in a pattern that inhibits a child's development and functioning; (b) be present in two or more settings (such as school, home, or work; with relatives or friends; in other places); and (c) negatively affect the quality of academic, social, or professional functioning (APA, 2013).

According to the DSM-V, a person with ADHD must have at least six symptoms from either the inattention characteristics group or the hyperactivity and impulsivity characteristics group.

"1. Inattention: a. frequently fails to devote close attention to details or makes casual blunders in school, at work, or while engaging in other activities (e.g., overlooks or misses details, work is inaccurate).

- b. Frequently struggles to maintain concentrate throughout work or play (e.g., has difficulty remaining focused during lectures, conversations, or lengthy reading).
- c. often ignores direct addresses (e.g., mind seems elsewhere, even in the absence of any obvious distraction).
- d. Doesn't always do what they're supposed to and leaves unfinished assignments, responsibilities, or jobs (e.g., starts tasks but quickly loses focus and is easily sidetracked).
- a. Frequently struggles with task and activity organization (e.g., difficulty managing sequential tasks; difficulty keeping materials and belongings in order; messy, disorganized work; has poor time management; fails to meet deadlines).
- f. Does not like to put up much mental effort or is reluctant to do so (e.g., schoolwork or homework; for older adolescents and adults, preparing reports, completing forms, reviewing lengthy papers).
- a. Frequently misplaces goods that are vital to ongoing activities or duties (e.g., school materials, pencils, books, tools, wallets, keys, paperwork, eyeglasses, mobile telephones).
- h. Frequently loses focus due to distractions (for older adolescents and adults, may include unrelated thoughts).
- I. Has trouble keeping track of daily tasks (e.g., doing chores, running errands; for older adolescents and adults, returning calls, paying bills, keeping appointments).
- 2. agitative and impulsivity:
 - a. Restless behaviour, such as tapping fingers or toes or shifting in one's seat.

- b. gets up from chair unexpectedly when sitting is expected (e.g., leaves his or her place in the classroom, in the office or other workplace, or in other situations that require remaining in place).
- c. frequently engages in inappropriate physical activity, such as running or climbing. (It's important to remember that among older kids or grownups, restlessness can be all there is to it.)
- d. unable to quietly participate or enjoy recreational activities.
- e. Has a habit of constantly moving and behaving in a "motorized" way (e.g., is unable to be or uncomfortable being still for extended time, as in restaurants, meetings; may be experienced by others as being restless or difficult to keep up with).
- f. Has a tendency to ramble on and on.
- g. tends to interrupt people mid-question (e.g., by finishing their words or talking over them).

Has a hard time waiting for things to happen (e.g., while waiting in line)?

I. Doesn't ask for or wait for permission before utilizing someone else's belongings or interrupting someone else's discussion, game, or activity; this includes teenagers and adults. (APA, 2013, p.59-60).

Multiple studies have shown that a child diagnosed with ADHD may also be suffering from another disease or condition. As a result, understanding that ADHD has "comorbidity," or the presence of at least two linked diseases, is crucial. The American Academy of Pediatrics reports that more than half of children with ADHD have trouble sleeping and exhibit secondary behavioural issues such argumentativeness, lying, noncompliance, temper outbursts, easy anger, and blaming others (Rief, 2012). Co-

occurring mental disorders, such as oppositional defiant disorder (ODD), anxiety disorder, and conduct disorder (CD), are common among children diagnosed with ADHD (Rief, 2012).

When indicators of behavioural and/or learning issues are seen, it is crucial to get a full and precise diagnosis of ADHD. Experts in the field are needed for this kind of assessment and treatment, as ADHD has unique traits and symptoms, and they must also be able to recognize and address the presence of any other diseases or ailments that may be present (Rief, 2012).

2.4 Challenges faced by Students with ADHD

Underachievement, high rates of hostility and disobedience, and difficulties developing relationships with peers were identified by Liviatan (2015) as three characteristic correlates of ADHD. It was suggested that the academic and social difficulties that children with ADHD face may have lasting effects on their adult social and mental health as well (Dessie et al., 2021). Students with ADHD may have a hard time focusing in class. There are a number of significant characteristics that can be used to foretell a student's performance in school (Liviatan, 2015). Some examples of these are attentive listening, following directions, planning ahead, maintaining concentration, getting along with others, and making friends. These skills may run counter to the traits of children with ADHD, leading them to underachieve in school. 95% of children with ADHD also struggle academically. He stressed that students with ADHD have trouble maintaining attention and consistent work effort for extended periods of time. This includes things like finishing assignments, focusing on classwork, paying attention, and remaining seated (Sibley, Graziano, Ortiz, Rodriguez, & Coxe, 2019).

Moreover, studies suggest that students with ADHD have a lower likelihood of college undergraduate completion and a higher rate of academic failure, expulsion, and grade retention compared to students with typical development (DuPaul et al., 2021). In a study of children aged 8 to 14, those without ADHD did significantly worse in reading, writing, and math than typically developing youngsters Barry et al. (2012). Students with ADHD often struggle with major issues connected to antisocial and disruptive behaviors, such as easily losing control of their emotions, being vengeful, arguing, and demonstrating disobedience (Cherkasova et al., 2021). In addition, it was noted that some client with ADHD engaged in negative behaviors such fighting, lying, stealing, and property destruction (Bekle, 2014). Peer relationships and sustained eye contact are two more areas where children with ADHD may struggle (Cherkasova et al., 2021; DuPaul et al., 2021). Ewe & Difficulties, (2019) showed that symptoms of ADHD, such as impulsivity, low self-esteem, and hyperactivity, may cause youngsters to struggle in social situations. As an added complication, "many youngsters with ADHD have a limitation in the way in which their brain can understand and respond to social conventions," a condition known as "social cognitive deficiency" (Ewe & Difficulties, 2019)

2.5 History of Inclusion

Children with special needs used to be educated in special schools that were completely separate from regular schools until the 1970s (United Nations Educational, Scientific and Cultural Organization, 2005). In the 1970s, new regulations were enacted regarding the status of special needs schooling, and they proposed a few initiatives toward the application of inclusion. In 1975, the Education for All Handicapped Children Act (EHA) was passed in the United States. For students with disabilities, this law ensures that they can attend public schools and get a "free suitable education" in the "least restrictive

setting" with their typically developing peers. To emphasize the need of including students with disabilities in regular classrooms, the Individuals with Disabilities Education Act (IDEA) was passed in 1997. However, its usefulness was constrained, and it depended on the specifics of the different kinds of impairment. The law mandates that "to the maximum extent appropriate," children with disabilities are educated alongside their typically developing peers, and that "special classes, separate schooling, or other removal of children with disabilities from regular environments occurs only when the nature or severity of disability is such that education in regular classes with the use of supplementary aids and services cannot be attained satisfactory". Soon after, in 1994, government officials from all over the world gathered in Salamanca, Spain for a conference on special needs education to advocate for the inclusion of children with special needs in regular classroom settings (Newton, Carbridg, & Hunter-Johnson, 2014). The statement highlighted the importance of inclusive education in ensuring equal access to learning opportunities for all pupils (UNDESA, 2016). It wasn't until 2001, when the No Child Left Behind Act was passed, that more significant measures were taken on behalf of children with special needs (NCLBA). While this legislation did not place an emphasis on inclusion, it did highlight the need to level the playing field for children from disadvantaged backgrounds. In 2006, the United Nations Convention on the Rights of Persons with Disabilities was ratified, marking a significant step forward for inclusive education (UNCRPD, 2006). Because of this treaty, all kids with disabilities are guaranteed access to a free public-school education (UNCRPD, 2006, article 24). Egypt is one of 175 countries who have confirmed their support for the deal. The Sustainable Development 2030 Agenda was presented in 2015, marking a positive move toward greater diversity and participation. Adopted by the UN Member States, this agenda highlighted the necessity of ensuring that no child is denied an education as one of its 17 goals and 169 associated targets (UNDESA, 2016). The request

for Goal No. 4 emphasized the value of an education that is accessible to all students, including those with special needs, and the role that diversity plays in fostering the development of a learner's unique (UNDESA, 2016). For as long as laws have been passed in this country, they have all implied that normal schools are required by law to provide a uniform educational experience for all pupils, regardless of their individual strengths and weaknesses (Ross-hill, 2009).

ADHD is a label usually applied to a spectrum of conditions characterised by a person's inability to maintain concentrate on a single activity without becoming easily sidetracked. Once upon a time, people thought that ADHD was a childhood disorder that persisted into puberty (Nigg et al., 2020). It's estimated that three-fifths of clients have ADHD. Despite extensive research, no one knows for sure what triggers ADHD, but many believe it has a biological basis (Thomas, Sanders, Doust, Beller, & Glasziou, 2015). Late-life manifestations are possible (Lugo-Candelas, Flegenheimer, McDermott, & Harvey, 2017). Poor focus and inattention are common long-term side effects of ADHD, while other symptoms such as anxiety and seizures may not manifest until adulthood (Capodieci, Lachina, & Cornoldi, 2018; Weibel et al., 2020). Numerous techniques are utilized for diagnostic confirmation. Various psychological assessments such as interviews, observations, and questionnaires (Nelson & Lovett, 2019). To get specific answers from people, a diagnosis of ADHD requires meeting certain criteria (Canals, Morales-Hidalgo, Jané, & Domènech, 2018). However, this method can be challenging for adults and teenagers to acquire detailed information due to age issues (Luthar, Kumar, & Zillmer, 2020). It's possible that grown-ups simply don't recognize the symptoms of ADHD. More and more students are being diagnosed with ADHD (Latouche & Gascoigne, 2019). As a result, it's crucial for teachers to effectively manage their classrooms (Siedentop, Hastie, & Van der Mars, 2019). As a result, there is widespread agreement across studies that

teachers need training to help them manage their pupils with ADHD (Young et al, 2020). However, most of the time, teachers rely on self-study strategies when dealing with pupils who have ADHD (De Sousa, 2020). Determining the nature and extent of teachers' understanding of ADHD is crucial. Most teachers recognize the signs of ADHD, according to a study by Mulholand et al. (2015), but few understand the "diet, prevalence, and physiology" of the disorder (p. 22). According to the findings, teachers are aware that their kids have ADHD but don't know how to help them (Gaastra et al., 2020). As a whole, research suggests that in-service training is critical for the achievement of students with ADHD because it helps teachers acquire accurate knowledge and build professional skills that aid in the management of students' behaviour and aid in the students' academic performance (Guerra, Tiwari, Das, Cavazos Vela, & Sharma, 2017). Due to the nature of the research, there are few studies that examine teachers' perspectives on their ADHD students. Teachers' perspectives on pupils are heavily informed by their familiarity with their qualities, such as those associated with ADHD (Ewe, 2019). Considerations like these pertain to things like a person's age, education, cultural background, experience, and formal instruction (Slobodin, & Masalha, 2020). The size of the classroom, according to these teachers, is just one of several environmental factors that might exacerbate the symptoms of ADHD (Emberti Gialloreti et al, 2019). They reason that student with ADHD should benefit from pharmaceutical and psychological intervention (Anastopoulos et al, 2020). However, other teachers hold the view that ADHD is a cultural construction, and that students' actions are influenced more by circumstances like classroom size than by any inherent disorder (Dort et al, 2020). Teachers who work with students who have ADHD say they've seen positive results after making some adjustments to their classrooms (Owens et al, 2020).

2.6 Teachers' knowledge of ADHD

Many studies on ADHD have been done in recent years. A large portion of the research in this area has concerned itself with surveying teachers about their understanding of and feelings about ADHD, as well as investigating the factors that may shape these metrics. Previous studies on the topic of attention deficit hyperactivity disorder found that instructors' understanding of the disorder varied widely from one another and maybe depended on the setting in which the experiments were conducted. Studies on teachers' knowledge of ADHD have consistently showed high teachers of awareness (about 50%-85% correct) (Greenway & Rees Edwards, 2020; Mulholland, 2016; Sibley et al., 2019; Yarde-Leavett, 2018). Previous research indicated that teachers were most accurate when answering questions on the symptoms or diagnosis of ADHD, while they were least accurate when answering questions about the etiology of the disorder (Greenway & Edwards, 2020; Mulholland et al., 2015; Yarde-Leavett, 2018).

In a similar vein, Cueli et al. (2020) analyzed teachers' knowledge of ADHD across four domains: background information, etiology or causes, symptoms, and therapy, using 587 participants (including 170 active teachers and 417 university students) from Spain. Teachers scored highest on treatment information, then symptoms, then general information, and finally etiology, indicating a decent level of understanding regarding ADHD. In both situations, the percentage of erroneous answers related to etiology was larger than the percentage of inaccurate answers related to other knowledge aspects. The authors noted that instructors' attitudes and worldviews could be to blame for the low rating on this factor.

Teachers also had trouble responding to questions on the prevalence of ADHD, according to studies by Greenway and Edwards (2020) and Mulholland et al. (2015). Researchers

concluded that more efforts should be made to educate teachers about ADHD both before they enter the classroom and during their careers.

Research has shown, however, that many teachers lack a solid foundational understanding of ADHD and are unprepared to work with their ADHD children in the classroom (Al-Omari et al., 2015; Dessie et al., 2021; Guerra & Brown, 2012; Murtani et al., 2020). Instructors' lack of familiarity with ADHD is indicative of a larger problem: pre-service teachers lack the knowledge and skills necessary to effectively assist their pupils with a wide range of diseases. Teachers typically want to learn more about ADHD and how to handle students with special needs, despite their lack of background knowledge on the topic (Al-Omari et al., 2015). That's why it's crucial for studies in the field of education to zero in on the aspects associated with teachers that contribute to their understanding of ADHD.

Successful education for students with ADHD requires teachers who understand the disorder and have the pedagogical tools to deal with ADHD-like behaviors in the classroom (Holtz & Lessing, 2002). Concerningly, a global survey of educators' understanding and misconceptions of ADHD found that, on average, teachers knew very little about the disorder (Scuitto et al., 2016). Scuitto, (Sciutto, Terjesen, & Frank, 2016) findings were replicated in a South African sample by Perold et al (2010).s research on a subset of Cape Town's primary school teachers. The researchers came to the conclusion that educators' understanding of the issue was lacking. Even more so, Topkin, Roman, and Mwaba (2015) discovered that primary school teachers in the Western Cape got only 45% of the items on the widely used Knowledge of Attention Deficit Scale right (KADDS). According to Mulholland, Cumming, and Jung's (2016) research in Australia, teachers there have a sufficient understanding of ADHD. Teachers had the greatest familiarity with

ADHD symptoms but the least with assessment and prevalence, according to the study. Teachers are more likely to understand ADHD if they have had experience working with students who have the disorder and if they have had ADHD-specific training, as found by Sciutto, Terjesen, and Frank (2000). That teachers' familiarity with ADHD is correlated with their level of experience in the classroom was reaffirmed by Mulholland et al. (2016). (Anderson, Watt, Noble, & Shanley, 2012; Bekle, 2014). Affective and hyperactivity disorder (ADHD): how teachers view it Considering the research that shows how much information teachers have regarding ADHD affects their perspectives on the disorder, the results of the aforementioned South African studies should raise red flags (Bornman & Donohue, 2013; Sciutto et al., 2000; Sciutto et al., 2016). Further, it is well established that professional development opportunities in inclusive education increase educators' confidence in their ability to instruct students with ADHD (Silverman, Hong, & Trepanier-Street, 2010). According to the literature instructors' perspectives on working with students who suffer from ADHD are influenced by their own sense of competence in the classroom (Kos, Richdale, Hay, & Education, 2006). According to Anderson et al. (2012), a teacher's knowledge and views about ADHD determine her or his teaching practices, which in turn affect the educational outcomes for students with the disorder. It has been hypothesized that educators' dispositions shape their pedagogical tactics, their openness to implementing interventions, and their methods of managing student behaviour (Anderson et al., 2012). Understanding how educators feel about students with ADHD and those who suffer from it is crucial. To our knowledge, only Bornman and Donohue (2013) have studied the perspectives of educators in South Africa on the topic of ADHD. The results of this research showed a correlation between educators' level of expertise and their outlook on inclusion. These results are consistent with those found by Ohan, Cormier, Hepp, Visser, and Strain (2008), who found that teachers in Australia who had a moderate to high level

of knowledge about ADHD also had more positive beliefs about interventions than teachers with a low level of knowledge. According to Mulholland et al. (2015), educators' attitudes toward students who have ADHD-like behaviors tend to be negative. Curiously, the researchers discovered that teachers' negative opinions regarding working with students affected by ADHD rose with their years of experience in the classroom. What's more, they discovered that as educators' understanding of ADHD grew, so did their comfort in teaching students with the disorder, their hunger for knowledge, and their motivation to improve their effectiveness in the classroom. Teachers in the Western Cape were surveyed to assess their awareness of ADHD and their attitudes about the disorder because of the important role they play in ensuring that teachers with the disorder have access to a high-quality, inclusive education. We also wanted to see if there were any correlations between certain variables and the educators' levels of ADHD understanding and attitudes. This study's results shed light on how well-prepared South African teachers are to pedagogically accommodate the demands of students with ADHD in the country's increasingly diverse classrooms.

As the author puts it, "the discussion is not so much over the principle of inclusive education, on which there appears to be universal agreement," but rather "how it is to be realized in practice" (Mulhern, 2013). The knowledge and outlook of educators are what make the classroom a genuine place. The government's push to include more students with special educational needs has been linked to increasing stress among teachers, as suggested by Gruchy, (2016). Professionals may experience difficulties, inconsistencies, and contradictions as they attempt to put into practice the inclusive education that has been advocated. According to Mittler (2000), teachers have a pivotal part to play in advancing inclusive education, but their own biases and prejudices may prove to be the most

formidable barrier. As a result of its conceptual and practical complexities, inclusive education has the potential to generate conflict.

A lot of teachers worry that they don't know enough to effectively instruct students with disabilities (Spasovski, 2020). There is a lack of structured training for many skills vital to effective work. All kids' unique needs must be considered and accommodated in the classroom. Teachers and other school personnel must acquire the necessary competences, including knowledge, skills, and dispositions, to ensure that all students receive an education that is fair and conducive to learning. How teachers view the strengths and challenges of students with special needs is crucial to how effectively they implement inclusive education (Spasovski, 2010). Prejudices and preconceptions about children with exceptional needs are a direct result of these misconceptions.

The students and the efficacy of the entire educational system are vulnerable to the effects of these misconceptions. When there are pupils with ADHD in the classroom, teachers have a far more difficult time maintaining order. Their issues with focus, impulsivity, and hyperactivity manifest themselves in disruptive classroom and social behaviors (Perold, Louw & Kleynhans, 2020). Teachers are frequently deeply involved in ADHD interventions because of the prevalence of symptoms in educational settings (Kern & Seabi, 2008). Teachers' knowledge and views on ADHD vary across their careers, and these attitudes are likely to affect their roles and the subsequent behavioural and learning results for children (Anderson, Watt, Noble, & Shanley, 2019). Teachers' teachers on ADHD are important for many reasons, including the fact that they are frequently the first point of contact for teachers seeking information about their child's possible ADHD diagnosis, that teachers' understanding of the disorder may affect how they instruct students with ADHD in the classroom, that the majority of the psychological research on

ADHD to date has relied on teachers' reports of children's symptoms and behaviors, and that many empirically supported psychosocial treatments for ADHD involve a substantial school-based component (Mayes & Bagwell, 2015 as cited in Kern & Seabi, 2018). What do teachers understand by inclusive education? Should anyone be excluded? Have they experienced children who are challenging? What was challenging about these children? How do they resolve such issues? These are some of the questions that Mulhern (2013) suggests can be used to identify barriers to inclusive education associated with teachers' dilemmas. These queries define the scope of the current investigation.

2.7 Teacher Professional Development

It is not uncommon for teachers' proficiency in a subject to be influenced by the extent to which they have participated in preparation and professional development programmes. However, mental health education is rarely a focus in teacher education programs (Frauenholtz et al., 2015). Furthermore, there is a dearth of programmes that offer professional development for teachers on the subject of mental health. Furthermore, not all training programmes are executed in a way that encourages teachers to participate (Van Veen, Zwart, & Meirink, 2012). Training that is both engaging and achieves buy-in from teachers gives teachers a chance to learn about kids' social-emotional learning needs in addition to their students' academic demands (Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016). Teachers may be more invested in learning about their students' mental health problems if they feel they have the knowledge and teachers to identify and effectively support kids who are struggling emotionally (Froese-Germain & Riel, 2012). If educators are better informed, they may be able to spot signs of mental health issues in their children sooner. Secondary school children are often the first to experience symptoms of mental health illnesses, so it is crucial that adolescent populations have access to

resources that can help them recognize these indicators before they have a significant influence on their academic performance (Kessler et al., 2005). It is widely accepted that providing teachers with access to ongoing professional development opportunities is one of the most effective ways to improve students' academic outcomes in the classroom (Momanyi, 2012).

2.8 Teachers attitude toward ADHD

Researchers in the field of education have recently shown a marked interest in studying people' perspectives on working with children who have ADHD. Teachers' attitudes on including students with disabilities have been found to vary by disability type (De Boer et al., 2011). Multiple studies conducted in different countries found that teachers generally have negative attitudes toward working with pupils who have ADHD.

For instance, Al-Omari et al. (2015) found that instructors in Jordan had a negative attitude toward students with ADHD. Even though South African teachers wanted additional training about ADHD, Yarde-Leavett (2018) discovered that they showed negative attitudes toward students with ADHD. Instead, this finding supports the idea of ambivalent attitudes, in which people hold both positive and negative attitudes about the world (Anderson et al., 2012). About the other hand, it was discovered that teachers' conflicting views on ADHD might lead to unhelpful attitudes when dealing with pupils who have the disorder. Some teachers may have the misconception that children with ADHD have to act the same as their peers who do not have the disorder (Guerra et al., 2017).

Glass (2001) also observed that teachers' negative attitudes toward children with ADHD may play a substantial effect in the quality of education the student will obtain. Feelings toward teaching kids with ADHD; Beliefs about ADHD and its Associated Behaviors; Accommodations; Knowledge and Training; and Desire for Additional Training

Concerning ADHD were the four areas examined by Mulholland et al. (2015) to identify teachers' attitudes. To further understand how educators feel about ADHD, they also classified attitudes into positive and negative categories. This study's results showed that, on the whole, Australian teachers had a negative view of ADHD and wanted more education and training on the topic for themselves and their colleagues.

It's possible that teachers' attitudes on kids with ADHD will vary based on their own personal histories and experiences. While most teachers have positive attitudes about ADHD, studies reveal that many still view having an ADHD kid in their classroom as a challenge (Blotnicky-Gallant et al., 2015). Some studies found no correlation between instructors' attitudes of ADHD and demographic information about the teachers themselves. To give just one example, Liang and Gao (2016) discovered that teachers with prior experience teaching children with ADHD held more unfavorable attitudes about those students than those without such prior experience. Furthermore, all of the interviewed teachers agreed that having pupils with ADHD is a source of disruption to their lesson plans (Liang & Gao, 2016). Analysis of the interviews, however, revealed that teachers' perspectives are strongly influenced by their level of expertise and training in the field, which in turn had a major bearing on teachers' attitudes of their own abilities to support students with ADHD and their sense of responsibility to the field as a whole (Liang & Gao, 2016). Similarly, Mulholland et al. (2015) discovered that teachers' favorable attitudes regarding instructing children with ADHD were significantly predicted by their level of teaching experience. Moreover, Anderson et al (2012).s research showed that educators' attitudes regarding working with students who have ADHD changed for the better as their teaching experience grew.

The study by Al-Omari et al. confirmed that most people have negative attitudes towards ADHD youngsters (2015). There was no correlation between teachers' levels of expertise and their attitudes on working with pupils who have attention-deficit hyperactivity disorder, according to the results. The results also showed that participants' age or years of teaching experience had no bearing on how they treated their ADHD students. Teachers who took part in the study were unanimous in their belief that medical practitioners should provide psychological support for children with ADHD.

Greenway and Edwards (2020), Cueli et al. (2020), and Mulholland et al. (2015) all found that knowledge of ADHD was a stronger predictor of attitudes towards ADHD than did the study by Al-Omari et al. (2015). Teachers who learn more about the disorder are more likely to have a positive outlook about working with attitudes who have ADHD. Age, general teaching experience, teaching experience with children with ADHD, additional training on ADHD, and level of knowledge about ADHD were selected as predictor variables of attitudes towards ADHD based on the relevant studies, all of which took into account the aforementioned teacher-related background factors.

2.9 Theoretical Framework

Mezirow's (1978) transformation theory provides the theoretical foundations. Transformative learning investigates how adults' perspectives are shaped by their limited exposure to a small number of life experiences. In his work on transformative learning, Mezirow (1991) lists eleven stages that may or may not be necessary for the learner to experience transformation. Mezirow identifies the following stages: (a) a perplexing predicament; (b) self-examination of assumptions; (c) critical reflection on assumptions; (d) recognition of dissatisfaction; (e) exploration of alternatives; (f) formulation of a plan of action; (g) acquisition of new knowledge; (h) role experimentation; I competence

development; and (j) reintegration of new perspectives into one's life (Mezirow, 1991). However, for the sake of this investigation, we will be employing Nerstrom's (2014) Transformational Learning Model in our analysis of transformative education (see Figure 3.1). Nerstrom's Transformative Learning Model draws on the work of Mezirow (1978) and condenses his ten-phase theory of transformative learning into four stages. According to Nerstrom's (2014) Transformative Learning Paradigm, each stage of the model is experienced by the learner in turn. Nerstrom's (2014) model includes the following four steps: (a) gaining experience; (b) forming assumptions; (c) interrogating one's worldview; and (d) undergoing transformative learning. Based on Mezirow's (1978) transformation learning theory, Nerstrom's (2014) Transformative Learning Model provides a straightforward lens through which to assess the transformative learning of TEACH Mental Health Literacy Curriculum participants.

Adult perspectives have constraints, and these restrictions might lead to personal truths that are not necessarily accurate (Nerstrom, 2014). Transformative learning, on the other hand, occurs when adults are given the chance to deepen their knowledge of a subject, challenge their preconceived notions, and develop novel perspectives (Nerstrom, 2014). Transformative learning can be prompted by a single, life-altering event or by a cascade of less dramatic but cumulatively formative experiences, such as professional growth, that lead to a fundamental shift in one's worldview (Mezirow, 1991). Professional development that helps teachers become genuine, unique and reflective practitioners is often studied through the lens of transformation theory (Cranton & King, 2003).

2.10 Summary

Most of the symptoms of ADHD become evident in the first few years of school, making teachers a crucial part of the process of identifying individuals with the disorder at an early

stage. Consequently, school teachers' familiarity with the behavioral changes of children with ADHD is essential for promoting early detection and intervention of these children. Studies showed that the level of knowledge and attitude toward ADHD varied across countries, also most studies indicated that there is a need for an educational program for teachers to deal with ADHD.

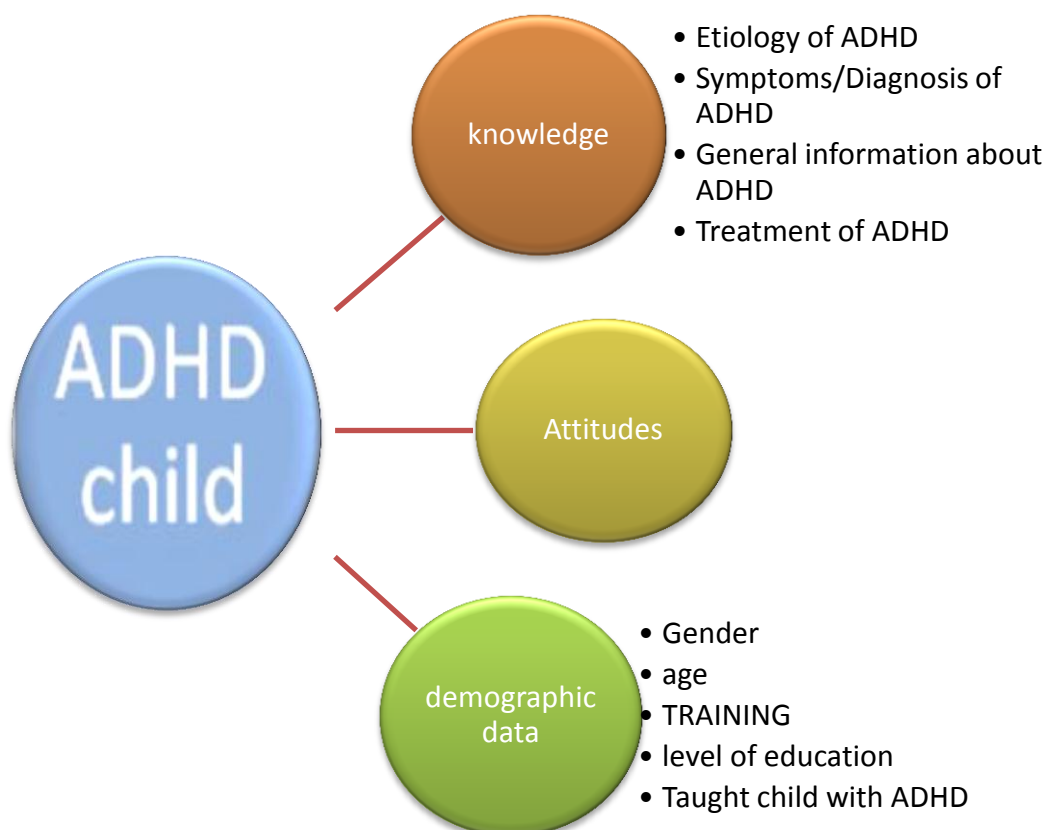
Chapter Three:

Conceptual Framework

3.1 Introduction:

This chapter discusses the conceptual framework of the study which was built according to the studied literature reviews assessing the same research topic. In addition, operational definitions will be presented.

Figure.2 The Conceptual framework



This conceptual framework has two overarching concepts. The core elements which are knowledge and attitude, and are considered dependent variables. Another component is the demographic factors (age, gender, training, level of education, taught child with ADHD) which are independent variables.

3.2 Variables of the study

Two variables (knowledge and attitudes) are interrelated to identify children with ADHD disorder and how to deal with them and therefore decrease complications.

Knowledge is the condition of knowing something with familiarity gained through experience (Dictionary of the English Language. Delux Encyclopedia 6th Edition).

Adequate knowledge for elementary school teachers about ADHD will play a major role in early diagnosis, which is very important because early diagnosis and treatment contribute to controlling symptoms of the disorder, and avoiding many future problems for the affected child.

Attitudes: refer to the relatively stable emotional tendency to react in a certain way towards a specific object, person or group of people (Robbin, Odendaal, & Roodt, 2003).

3.3 Dependent variables Knowledge, and Attitudes and relationship with independent variables Demographic characteristics

In term of relationship between age and knowledge and attitude, a previous study by (Hosseinnia, Mazaheri, & Heidari, 2020) reported that there was a significant inverse relation between the means of knowledge and attitude of teachers and their age, as the younger teachers gained higher mean scores. Another study showed that increasing age increases knowledge (Lamichhane & Sharma, 2019).experience in teaching and previous

experience with a child with ADHD were significantly associated with teachers' knowledge regarding ADHD general information (Esra'a Yahya Al-Moghamssi, 2018). While the previous studies showed that years of experience had no significant effect on the actual knowledge scores (Basudan, Akbar, El-Ghamdi, & Ibrahim, 2019).

3.4 Relation between knowledge and attitude

Knowledge is a structural property of attitudes that is a function of the number of beliefs and experiences linked to the attitude in memory and the strength of the associative links between the beliefs or experiences and the attitude (Krosnick & Petty, 1995). Several studies have supported that increases in knowledge are associated with greater influence of attitudes. For example, (Kallgren & Wood, 1986) found that attitudes based on high amounts of knowledge were more predictive of environment-related behavior than were attitudes based on low amounts of knowledge. Similarly, (Davidson, Yantis, Norwood, & Montano, 1985) found that intentions were better predictors of behavior when they were based on high amounts of knowledge than when they were based on little knowledge, so conceptual framework built on the relationship between having good awareness and knowledge toward ADHD child and positive attitude.

Higher education level was related to improved levels of attitude that is constructed by cognitive beliefs, affective states and perceived control, such as a collaborative learning process in college and university education can initiate changes in attitude for the better (Murtani et al., 2020).

Chapter Four:

The Methodology:

4.1 Introduction

While researchers have historically given much weight to their results and given little thought to the research method, more recent voices have raised the opposite perspective, arguing that the research process should be acknowledged as an integral aspect of the final outcome (Letherby, 2003). The recommended methodological goal is to raise consciousness about how science works (Gomm, 2013). Nonetheless, the general character of the research topic and the principal study goals are related to the rationale for choosing one approach over another (Best & Kahan, 1998). Research paradigms pertaining to the nature of reality and the means by which knowledge of reality might be obtained also inform the alternative approach (Fraenkel & Wallen, 2016).

The research design, sample, ethical concerns, procedure, and tools are all presented in this section of the report. The chapter concludes with a summary and a discussion of the chapter's primary topics: validity and reliability, and Analysis of Questionnaires.

The purpose of this research was to investigate teacher-related background variables' effects on general education teachers' understanding and perceptions of ADHD. Three research questions guided the investigation: One, how well-versed in ADHD are classroom instructors generally? Second, how do educators feel about ADHD? Is there a correlation between teachers' prior experiences with kids who have ADHD and their current understanding of the disorder? These topics were investigated using a quantitative cross-sectional study design.

4.2 Research Design

For this study, descriptive, cross sectional design used to assess the teachers awareness and attitudes about Attention Deficit Hyperactivity Disorder (ADHD) at Hebron governorate. This is a preferable method of research according to the purpose of the study for a number of reasons. Creswell (2012) argues that this technique enables researchers to construct quantitative descriptions of large populations in order to characterize the beliefs, attitudes, and actions of the community as a whole. The anonymity of the survey's respondents was a major factor in its selection, as was the ability to extrapolate the results to a larger population (Cohen et al., 2007; Creswell, 2014; Muijs, 2004). Finally, the economic data entry costs and time are reduced using the online survey design (Creswell, 2014; Muijs, 2004).

The data was collected at one point in time because the study is cross-sectional (Cohen, et al., 2007; Creswell, 2014).

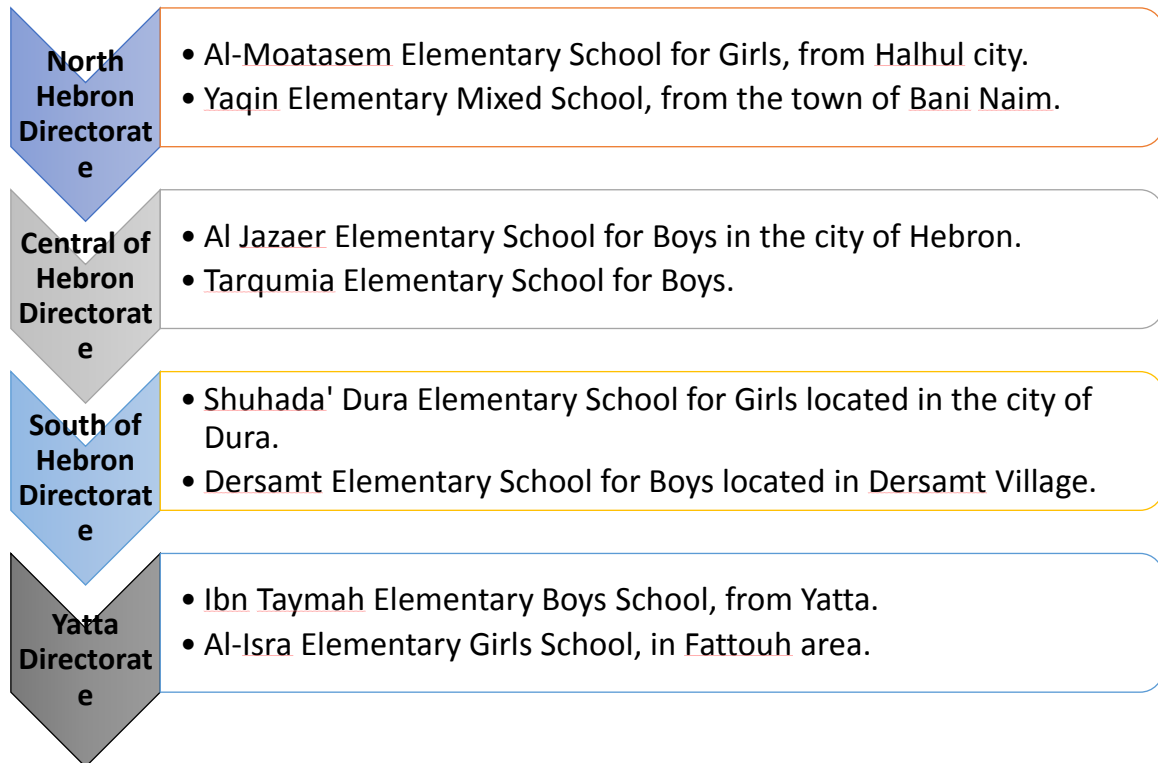
4.3 Research Sample and setting

This study used a cluster sample to choose the schools that would take part, and then a convenience sample of instructors who were available throughout the study period was recruited.

This sampling method was used since it would be impossible to survey every possible participant, sampling plays a crucial role in both quantitative and qualitative studies (Mertens, 2009).

The target population of the present study was the elementary school teachers working at Government schools in Hebron Governorate. Initially, this study was focused on comparing the teachers' knowledge of and attitudes toward ADHD in two selected schools. The Directorate of Education in Hebron is divided into 4 Directorates (4 clusters),

North Hebron Directorate, Central Hebron Directorate, South Hebron Directorate, and Yatta Directorate, The researcher brought lists of the names of the schools from each of the directorates. Tow governmental elementary schools were randomly selected from each cluster as follows:



4.4 Study tool

In this study, the researcher used a self-administered questionnaire to assess the teacher's knowledge and attitudes concerning ADHD in Palestine.

Self-administered questionnaires are utilized extensively as a tool of data collection in educational and social science research (Scott & Usher, 1999). They are deemed to be a cost-effective data-collection method, particularly for large numbers of people; which provides generalizability in a comparatively standardized way. In a number of situations, self-completion questionnaires might permit people to state views relating to issues which they might otherwise not be comfortable discussing with an interviewer (Boulton, 1994).

The study used the ADHD knowledge questionnaire to assess the teacher's knowledge. This assessment tool is found to be appropriate with psychometric properties, that are reliable and valid and that provide accurate data about the Palestinian teachers' knowledge of ADHD. This questionnaire was developed and used in previous reports of Soroa, Balluerka, & Gorostiaga, (2014). Further, the attitudes of the school teachers were assessed by using the self-report questionnaire used in previous reports of Kos, Richdale, & Jackson, (2004); and Sciutto, Terjesen, & Frank, (2000). The two questionnaires were translated into Arabic to suit the participants of the study. The translation process was done with the help of an official translator. Content of the questionnaires was then followed by a final evaluation through experts review and pilot testing was also done.

Instruments of this study encompass three parts (Annex I):

1. Demographic variables include (age, gender, training, level of education, taught child with ADHD).
2. Knowledge part consisted of 26 questions in total. This part uses the Likert scale, it contains 4 domains (Causes: 4 Items), (symptoms: 11 items), (General information: 4 items), and (Treatment :7 Items).The answer of these items include the participants choice between (yes, No, or I don't know).
3. Attitude part consisted of 25 questions. This part also uses Likert scale the answer to which is either (correct, not correct, or don't know).

In general, the questionnaires that have been used in this research are composed of highly structured closed questions. In this instance, a closed-ended question has been defined as 'one in which the respondents are offered a choice of alternative' (Oppenheim, 2014), and is considered to be easy to answer with no writing required (Hartog, 2018). This type of questionnaire is deemed preferable since open-ended questions may possibly be vulnerable

to respondents' understanding, and may also be more difficult to analyses; they also require a great deal of time—particularly when dealing with a lot of responses (Robson, 2020), which is the intention of this research. Closed questions are also considered to be helpful in generating response frequencies, which are susceptible to statistical analysis and which accordingly facilitate a researcher to compare across groups sample (Oppenheim, 2016). However, closed questions also have a number of disadvantages, such as when the researcher is not aware of different possible answers, or if the design of the closed questions is poor, which would have the potential to mislead or frustrate participants (Brace, 2014). Besides, closed questions provide a restricted range of alternatives and cannot cope with qualifications to responses: for example, 'it's depends' (Gillham, 2012).

The answers of the Questions about the teachers' knowledge were ranked from 0 to 2. The researcher classified the total knowledge to low, moderate and high as the following:

Table 4.1: The cut off points for total knowledge score among the school teachers.

Mean	Item No.	Cut off point	Calculation method	Knowledge score
0.49-0	26	0-12	$26 \times 0 = 0$ $26 \times 0.49 = 12$	Low level of knowledge
1.49-0.5	26	13-38	$26 \times 0.5 = 13$ $26 \times 1.49 = 38$	Moderate knowledge
2-1.5	26	39-52	$26 \times 1.5 = 39$ $26 \times 2 = 52$	High level of knowledge

Scoring of Knowledge about ADHD was done by calculating Mean of the Item.

Cut off points Calculation method of Knowledge score was done as:

☐ **low level of knowledge: if the total of knowledge ranked from 0-12**

☐ **moderate level of knowledge: if the total of knowledge ranked from 13-38**

☐ **high level of knowledge: if the total of knowledge ranked from 39-52**

- 0 for I don't know
- 1 for incorrect answer
- 2 for correct answer

4.4.1 Validity

Content validity of the Knowledge questionnaire was ensured through valid previous studies of Soroa, Balluerka, & Gorostiaga ,(2014). Content validity of the attitude questionnaire was ensured through valid previous studies Kos, Richdale, & Jackson, (2004) and Sciutto, Terjesen, & Frank, (2000). Furthermore, validity was increased through the pilot study, the clinical knowledge and experience of the researcher, and consultation with the experts in the field in addition to the views of the supervisor and biostatistician.

4.4.2 Readability (Pilot Study)

A pilot study was conducted on 12 teachers and it was excluded from the sample size. It was conducted to determine the suitability of the questionnaire, and availability of data and to estimate the time required for the data collection.

Then the Reliability scale (Cronbach's Alpha) was computed on a pilot study as table below.

Table 4.2: Reliability and Cronbach alpha for the knowledge and attitudes.

Section	Cronbach's Alpha
Knowledge	0.78
Attitude	0.83
Total	0.80

4.5 Data collection

Before implementation of the research, a permission was taken from the Ministry of Education Authorities. The researcher then visited the selected schools and set a meeting with the headmaster of each school. In the meetings the researcher explained the purpose of the study and gave the required number of questionnaires to the school administrators and asked them to facilitate the distribution of the questionnaires among the school teachers. The headmasters were cooperative and agreed to help the researcher in the distribution process of the questionnaires and to phone the researcher when they need any questions or explanations about the questionnaire. They also promised to contact the researcher when all the questionnaires are being fulfilled. The questionnaires were distributed amongst every teacher deemed available and eligible for entry into the research within the frame of the sample. The questionnaires were distributed in the teacher's free time and collected on the same day by the headmasters of the selected schools. In some schools, the researcher was presented at the time of data collection and was ready to answer the participants question or give explanation. and a small leaflet was produced and sent out with the letter; it gave details, in simple terms, about the researcher, the research, and the hope of providing children with benefits. Respondents have been informed about their anonymity and confidentially, so they should not write their names anywhere on the questionnaire. The researcher distributed (160) questionnaires to the study sample in paper form, and the number of questionnaires retrieved was (156). Therefore the response rate was 97.5 % of the total number distributed questionnaires. This indicates that 4 questionnaires were not returned to the researcher. The collected 156 questionnaires were then retrieved, and 10 questionnaires were excluded from the study because they were not completed well and retained with a lot of missing data. The final number of questionnaires that were analyzed was 146 questionnaires.

4.6 Ethical Issues

Ethical approval was taken from the ethical committee at Al-Quds university/ college of health professions. Further, the researcher got the permission of the ministry of education at Hebron Governorate to contact the headmasters of the schools and to collect the data from the teachers at the selected schools. Teachers were able to give an oral consent on their participation in the study and they were assured that confidentiality and anonymity is an important issue that the researcher will follow . moreover they were given the right to withdraw the stusy at any time without giving a reason. Involving people as respondents requires the researcher to take into account different aspects, such as protecting the respondents from harm, certifying confidentiality, steering away from deception, and being aware of the participant's right to withdraw from the research at any time and for any or no rationale (Gray, 2014). Besides, according to the Data Protection Act, it is prohibited to reveal any personal information connected to this study to another party without the complete consent of the person. This research has worked in such a way that it remains compliant with these guidelines. Therefore, the schools (on the researcher's behalf), contacted the teachers. However, the researcher's contact details were written on the letter, and the participants concerned were encouraged to make contact with the researcher. Participants were guaranteed that their personal information would remain confidential that the researcher was not acquainted with who is going to be given the letter, and their identity would merely be able to be known if it was to be written down. The collected questionnaires were stored in a safe place, after bringing them back from the statistician, they will be kept until finalizing all matters related to the thesis, then they will be discarded through university policy in which the questionnaire will be put in a machine for Chopping.

4.7 Data analysis

SPSS Version 25 used for data analysis. Descriptive statistics (frequencies, percentages, Means, Standard Deviations) are used. The following Tests and Methods were used to analyze the results assuming that the P-Value < 0.05 is considered significant:

1. One Way ANOVA test: tests the differences in percentages between variables.
2. T test: the differences in means between groups of patients for quantitative variables.

Chapter Five:

The Results:

The first section of this chapter presents a demographic description of the sample in terms of (age, gender, training, level of education, taught child with ADHD).

The second section describe level of teachers knowledge about ADHD this part consisted of 26 questions in total, highlighted in 4 domains such as causes, symptoms, General information and Treatment. The third section describe teacher attitudes toward ADHD child, consisted of 25 questions.

5.1 Demographic characteristics of the study sample

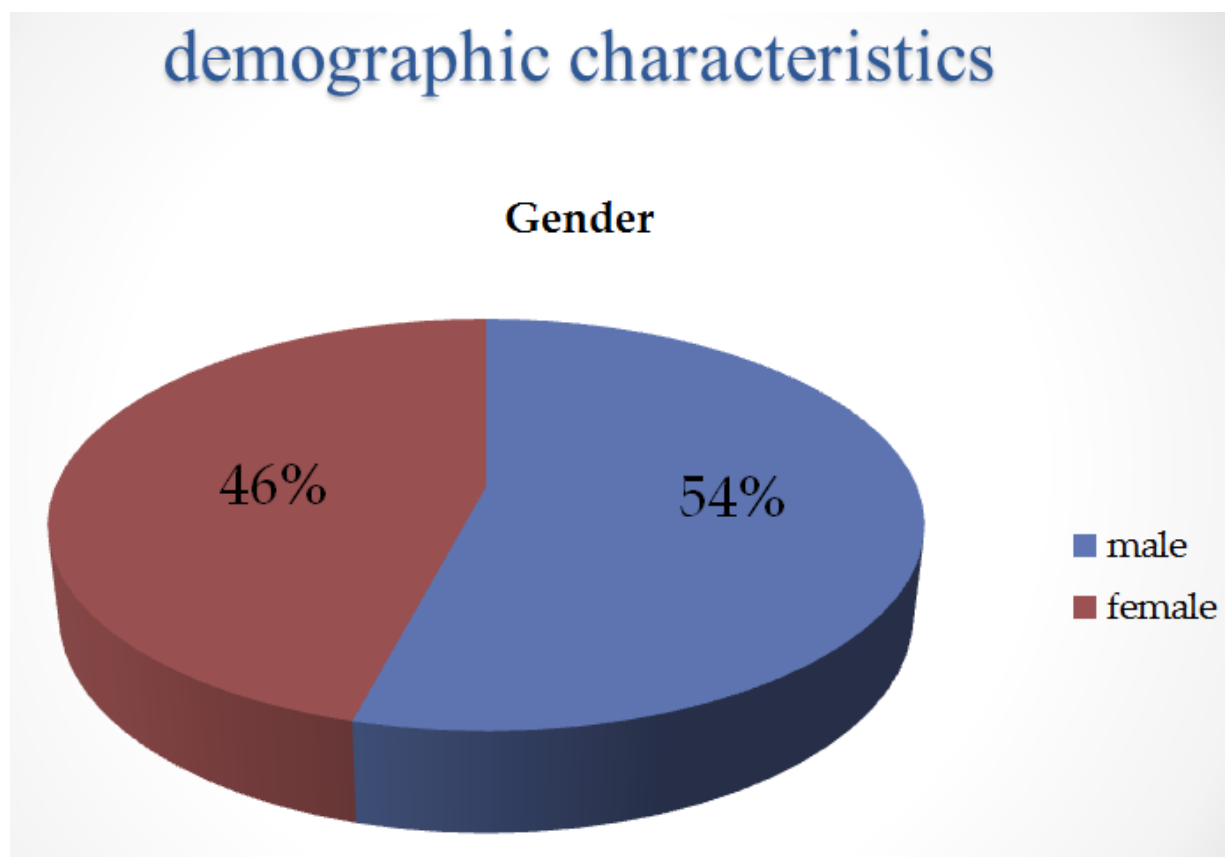
Table (5.1) Relative frequency distribution and percentage of demographic characteristics(n=146).

demographic variable	Options	Frequency	percentage(%)
Gender	Male	79	54.1
	Female	67	45.9
	Total	146	100
the age	34-24years old	52	35.6
	45-35years old	51	34.9
	56 -46years old	36	24.7
	Over 56 years old	7	4.8
	Total	146	100
education level	High school		
	Diploma	17	11.6
	BA	118	80.8
	Higher Diploma	1	0.7
	Master's	10	6.8
	Total	146	100
Have you ever received specific ADHD training?	Yes	30	20.5
	No	116	79.5
	Total	146	100

demographic variable	Options	Frequency	percentage(%)
Do you teach students affected with ADHD	Yes	77	52.7
	No	57	39
	I do not know	12	8.2
	Total	146	100

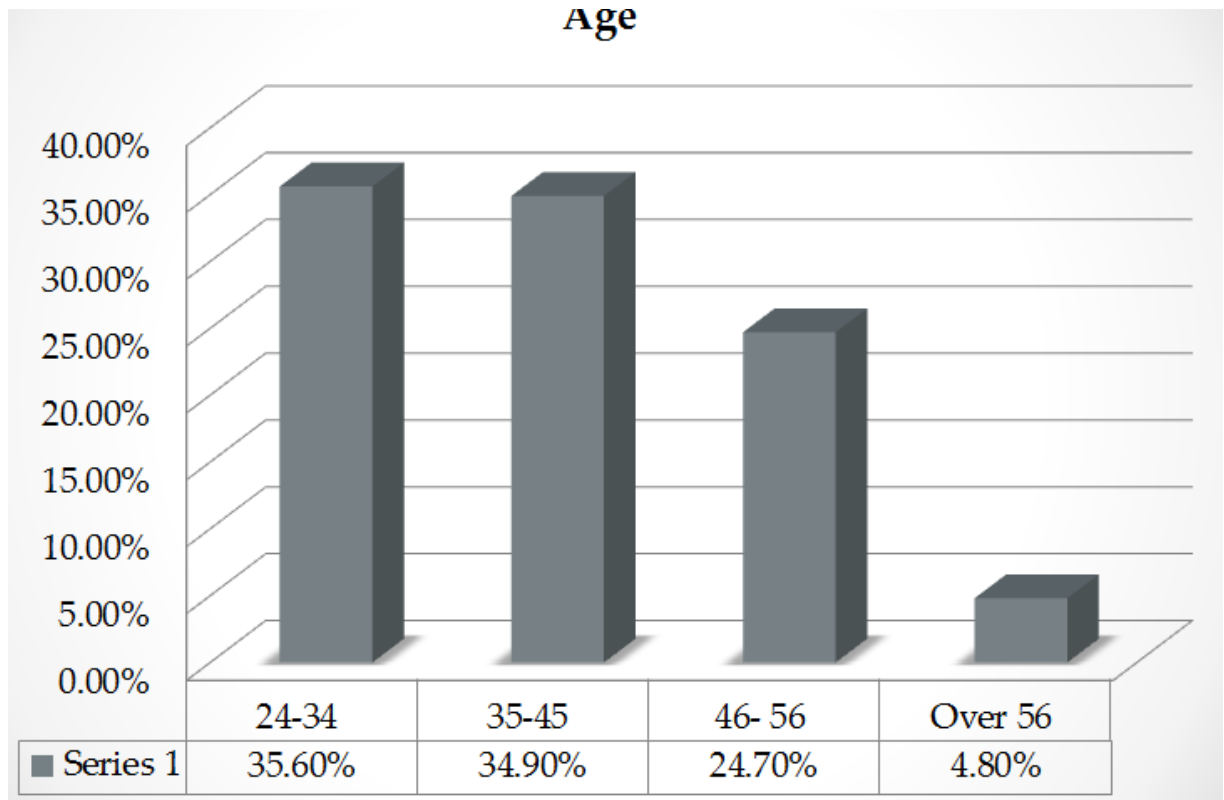
It is noted from the demographic characteristics table 3.1 that gender variable: the largest number of male respondents was at a percentage of (54.1%) of the study sample, while the number of females reached at a percentage of (45.9%) of the study sample.

Figure 4: gender



Age variable: The largest number of respondents was from the age group (24-34 years), in a percentage of 35.6% of the study sample, while the least number of respondents was from the age group (more than 56 years), in a percentage of 4.8% of the study sample.

Figure 4: age



Education level: The largest number of respondents was from bachelor's degree graduates, that accounts for 80.8% of the study sample, while the least number of respondents were higher diploma graduates.7 % of the study sample.

Training variable: The largest number of respondents was from the no option, and their percentage 79.5% of the study sample, while the least number of respondents was from the yes option, and their percentage was 20.5% of the study sample.

About teaching an ADHD child: The largest number of respondents Answered "Yes", at a percentage of 52.7% of the study sample, while the least number of respondents was from the "I don't know" option, at a percentage of 8.2% of the study sample.

5.2 Stability of the study tool

To verify the stability of the study tool, the stability of the internal consistency of the items of the questionnaire was used using the Cronbach alpha stability equation on the study sample for the main study axes. As shown in Table (5.2).

Table (5.2) Cronbach alpha stability coefficient values for the study axes

The stability coefficient value is alpha	The number of paragraphs	The focus of the study
86	26	Knowledge
47	25	Situation
82	51	Total marks

It is noted from Table (5.2) that the degree of stability of the overall study tool is high, as the value of the Cronbach alpha reliability coefficient was (82 %) at the total score. What resulted in measuring the stability of the study tool?

5.3 Knowledge level for each domain

5.3.1 First domain Causes of ADHD

Table (5.3.1) Relative frequencies and percentage of the teachers awareness about causes of ADHD (n =146).

Causes of ADHD		F	%
A critical and authoritarian style of education by parents can lead to ADHD.	low level	6	4.1%
	Moderate level	131	89.7%
	High level	9	6.2%
	Total	146	100%
In children, ADHD may be caused by the stress generated by the current pace of life.	low level	5	3.4%
	Moderate level	116	79.5%
	High level	25	17.1%
	Total	146	100%
Stressful events such as divorce of parents or the birth of a new brother or	low level	6	4.1%
	Moderate level	126	86.3%

Causes of ADHD		F	%
sister may be the cause of ADHD.	High level	14	9.6%
	Total	146	100%
ADHD can be caused by a bad education or a chaotic home environment.	low level	9	6.2%
	Moderate level	119	81.5%
	High level	18	12.3%
	Total	146	100%

Note that the larger number of standards The average knowledge is 84.25 % of the sample size, and the least of them is the low level of knowledge, which is 4.45 % of the sample size.

5.3.2 Second domain Symptoms/Diagnosis of Hyperactivity Disorder:

Table (5.3.2): Relative frequencies and percentage of the teachers awareness about Symptoms/Diagnosis of Hyperactivity Disorder (n =146).

Symptoms/diagnosis of ADHD		F	%
Children with ADHD have difficulty complying with the rules of the classroom and social norms	low level	11	7.5%
	Moderate level	21	14.4%
	High level	114	78.1%
	Total	146	100%
Children with ADHD often have difficulty controlling their emotions, especially anger	low level	15	10.3%
	Moderate level	18	12.3%
	High level	113	77.4%
	Total	146	100%
Children with ADHD complain when they have to perform tasks that require sustained mental effort and try to avoid doing them	low level	14	9.6%
	Moderate level	23	15.8%
	High level	109	74.7%
	Total	146	100%
Children with ADHD often lose items such as clothing, school supplies, toys, etc.	low level	19	13%
	Moderate level	35	24%
	High level	92	63%
	Total	146	100%
Children with ADHD have difficulty awaiting his or her turn	low level	26	17.8%
	Moderate level	28	19.2%
	High level	92	63%

Symptoms/diagnosis of ADHD		F	%
	Total	146	100%
Children with ADHD act without thinking through the consequences of their actions	low level	13	8.9%
	Moderate level	28	19.2%
	High level	105	71.9%
	Total	146	100%
Children with ADHD interrupt or intrude on the activities of others	low level	19	13%
	Moderate level	24	16.4%
	High level	103	70.5%
	Total	146	100%
Children with ADHD start to answer before their interlocutor finishes asking the question	low level	15	10.3%
	Moderate level	20	13.7%
	High level	111	76%
	Total	146	100%
Children with ADHD seem not to listen when spoken to	low level	15	10.3%
	Moderate level	25	17.1%
	High level	106	72.6%
	Total	146	100%
Children with ADHD have trouble completing the tasks they have started	low level	13	8.9%
	Moderate level	30	20.5%
	High level	103	70.5%
	Total	146	100%
Children with ADHD often tend to forget things	low level	23	15.8%
	Moderate level	26	17.8%
	High level	97	66.4%
	Total	146	100%

It is noted that the largest number is from the high level, at a percentage of 71.25% of the sample size, and the least of them are from the low level, at a percentage of 10.46% of the sample size.

5.3.3 Third domain General information about ADHD:

Table (5.3.3): Relative frequencies and percentage of the teachers awareness as general information about ADHD (n =146).

General information about ADHD		F	%
In general, excessive activity reduces in adolescence, though the impulsiveness and difficulties with attention remain	low level	25	17.1%
	Moderate level	32	21.9%
	High level	89	61%
	Total	146	100%
The proportion of boys and girls with ADHD is similar	low level	41	28.1%
	Moderate level	31	21.2%
	High level	74	50.7%
	Total	146	100%
Boys with ADHD tend to have a greater degree of hyperactivity-impulsivity than girls.	low level	24	16.4%
	Moderate level	28	19.2%
	High level	94	64.4%
	Total	146	100%
Young people with ADHD drop out of school more frequently than others.	low level	19	13%
	Moderate level	28	19.2%
	High level	99	67.8%
	Total	146	100%

It is noted that the largest number is from the high level, at a percentage of 60.97% of the sample size, and the least of them are from the low level, at a percentage of 18.65% of the sample size.

5.3.4 fourth domain Treatment of hyperactivity disorder

Table (5.3.4): relative frequencies and percentage of the teachers awareness about General information about ADHD (n =146).

Hyperactivity disorder treatment		F	%
The teacher must provide opportunities for the student with ADHD to channel their excessive movement.	low level	4	2.7%
	Moderate level	12	8.2%
	High level	130	89%
	Total	146	100%
The performance and school adjustment of children with ADHD may improve if teachers have specific training in this disorder.	low level	7	4.8%
	Moderate level	11	7.5%
	High level	128	87.7%
	Total	146	100%

Hyperactivity disorder treatment		F	%
There are specific techniques and programs to improve the attention span of children with ADHD.	low level	22	15.1%
	Moderate level	17	11.6%
	High level	107	73.3%
	Total	146	100%
Receiving general information about ADHD improves the attitudes of teachers, parents and classmates towards children who suffer from it.	low level	10	6.8%
	Moderate level	14	9.6%
	High level	122	83.6%
	Total	146	100%
Parents and teachers of children with ADHD need to actively participate in the application of psychological techniques.	low level	12	8.2%
	Moderate level	19	13%
	High level	115	78.8%
	Total	146	100%
The collaboration of the teacher with the treatment being received by the child with ADHD has an influence on the result of that treatment.	low level	5	3.4%
	Moderate level	16	11%
	High level	125	85.6%
	Total	146	100%
Waiting for the symptoms of ADHD to improve over the years, without any kind of treatment implies, means taking away opportunities for the child's future.	low level	11	7.5%
	Moderate level	24	16.4%
	High level	111	76%
	Total	146	100%

It is noted that the largest number is from the high level, at a percentage of 82% of the sample size, and the least of them are from the low level, at a percentage of 6.93% of the sample size.

Table (5.4): The Mean of attitude score

Attitude	Percent
Negative attitude	49.8
Positive attitude	33.6

It is noted that the highest percentage is from the negative attitude at 49.8%, and the lowest from the positive trend at (33.9%).

5.5 Attitudes toward ADHD

Table (5.5): relative frequencies and percentage of the teachers attitudes about ADHD (n =146).

Attitude of ADHD		F	%
ADHD children misbehave because they are naughty	negative attitude	48	27.4%
	Positive attitude	98	56%
ADHD is an excuse for children to misbehave	negative attitude	58	33.1%
	Positive attitude	88	50.3%
Managing the behavior of ADHD students is easy	negative attitude	57	32.6%
	Positive attitude	89	50.9%
ADHD children misbehave because they do not like following rules	negative attitude	105	60%
	Positive attitude	41	23.4%
ADHD is an American phenomenon	negative attitude	83	47.4%
	Positive attitude	63	36%
ADHD children cannot change the way they behave	negative attitude	69	39.4%
	Positive attitude	77	44%
Children who cannot sit still in class simply need to be disciplined	negative attitude	58	33.1%
	Positive attitude	88	50.3%
All children with ADHD should take medication	negative attitude	120	68.6%
	Positive attitude	26	14.9%
You cannot expect as much from an ADHD child as you can from other children	negative attitude	76	43.4%
	Positive attitude	70	40%
Most students with ADHD do not really disrupt classes that much	negative attitude	87	49.7%
	Positive attitude	59	33.7%
Children with ADHD could control their behavior if they really wanted to	negative attitude	90	51.4%

Attitude of ADHD		F	%
	Positive attitude	56	32%
ADHD students could do better if only they'd try harder	negative attitude	116	66.3%
	Positive attitude	30	17.1%
ADHD is diagnosed too often	negative attitude	67	38.3%
	Positive attitude	79	45.1%
ADHD is a behavioral disorder that should not be treated with medication	negative attitude	103	58.9%
	Positive attitude	43	24.6%
Young ADHD children should be treated more leniently than older ADHD children	negative attitude	107	61.1%
	Positive attitude	39	22.3%
Other students do not learn as well as they should when there is an ADHD child in the class	negative attitude	105	60%
	Positive attitude	41	23.4%
Children with ADHD should not be taught in the regular school system	negative attitude	76	43.4%
	Positive attitude	70	40%
Students with ADHD are just as difficult to manage in the classroom as any student	negative attitude	97	55.4%
	Positive attitude	49	28%
ADHD children have little control over the way they behave	negative attitude	44	25.1%
	Positive attitude	102	58.3%
The extra time teachers spend with ADHD students is at the expense of students without ADHD	negative attitude	109	62.3%
	Positive attitude	37	21.1%
Having an ADHD child in my class would disrupt my teaching	negative attitude	100	57.1%
	Positive attitude	46	26.3%
Medications such as Ritalin and Dexamphetamine should only be used as a last resort	negative attitude	123	70.3%
	Positive attitude	23	13.1%
ADHD children should be taught by special education teachers	negative attitude	119	68%

Attitude of ADHD		F	%
	Positive attitude	27	15.4%
ADHD is a legitimate educational problem	negative attitude	114	65.1%
	Positive attitude	32	18.3%
ADHD is a valid diagnosis	negative attitude	49	28%
	Positive attitude	97	55.4%

Are there differences in the average responses of the respondents about their knowledge and attitude towards hyperactivity disorder?

The (One-Way ANOVA tests) and (T-Test) were extracted in Tables (5.6) and (5.8).

Table (5.6): Results of (One-Way ANOVA) test for the knowledge and attitude of the respondents with hyperactivity disorder in children.

ANOVA		Sum of squares	Df	mean square	F	Sig.
ANOVA(	Between Groups	.102	3	.034	.433	.729
	Within Groups	11,172	142	.079		
	Total	11,274	145			
ANOVA(	Between Groups	.011	3	.004	.224	.880
	Within Groups	2,247	142	.016		
	Total	2,258	145			
ANOVA(	Between Groups	.284	3	.095	1,222	.304
	Within Groups	10,991	142	.077		
	Total	11,274	145			
ANOVA(	Between Groups	.080	3	.027	1,737	.162
	Within Groups	2,178	142	.015		
	Total	2,258	145			

ANOVA		Sum of squares	Df	mean square	F	Sig.
I taught a child with ADHD		Sum of Squares	Df	mean square	F	Sig.
ANOVA	Between Groups	.630	2	.315	4,229	.016
	Within Groups	10,645	143	.074		
	Total	11,274	145			
ANOVA	Between Groups	.138	2	.069	4,658	.011
	Within Groups	2,120	143	.015		
	Total	2,258	145			

It is noted from the table (5.8) that there are no statistically significant differences between the average answers of the respondents about their knowledge and attitude towards ADHD in children, as the value of the statistical significance for the variables (age and ANOVA)) for the two axes (knowledge and attitude) is greater than alpha (5%), which is It is not statistically significant, while the statistical significance of the variable (I taught a student with hyperactivity disorder) was less than $1,000 = 5\%$, and it is statistically significant, meaning there are differences between the averages of the respondents ' answers at the knowledge and attitude axis due to (I taught a student with hyperactivity disorder).

Table (5.7) least significant differences test (LSD)

Dependent Variable	(I) I taught a child with ADHD	(J) I taught a child with ADHD	Mean Difference (IJ)	std. Error	Sig.	95% confidence interval	
						Lower Bound	upper bound
Knowledge	yes	No	0.08	0.05	0.10	-.0151-	0.17
		no, I know	.22999 *	0.08	0.01	0.06	0.40
	no	Yes	-.07912-	0.05	0.10	-.1734-	0.02
		no, I know	0.15	0.09	84.00	-.0204-	0.32
	no, I know	Yes	-.22999- *	0.08	0.01	-.3974-	-.0626-

Dependent Variable	(I) I taught a child with ADHD	(J) I taught a child with ADHD	Mean Difference (IJ)	std. Error	Sig.	95% confidence interval	
						Lower Bound	upper bound
		No	-.15087-	0.09	84.00	-.3222-	0.02
Situation	yes	No	.05906 *	0.02	0.01	0.02	0.10
		no, I know	0.07	0.04	0.06	-.0030-	0.15
	no	Yes	-.05906- *	0.02	0.01	-.1011-	-.0170-
		no, I know	0.01	0.04	0.74	-.0638-	0.09
	no, I know	Yes	-.07169-	0.04	0.06	-.1464-	0.00
		No	-.01263-	0.04	0.74	-.0891-	0.06
*. The mean difference is significant at the 0.05 level.							

It is noted from the table above that the difference came in favor of the answer yes for the variable I taught a child with hyperactivity disorder for each of the two axes (knowledge and attitude)

Table (5.8): Results of the (T-Test) test for the knowledge and attitude of the respondents with hyperactivity disorder for children.

	training	N	Mean	std. Deviation	std. Error Mean
Knowledge	yes	30	1.5886	.15426	.02816
	no	116	1.4270	.29432	.02733
average _ position	yes	30	1.4373	.11552	.02109
	no	116	1.3938	.12601	.01170

T-Test

Gender		N	Mean	std. Deviation	T	Sig
Knowledge	Mention	79	1.42	.298	-1.979-	.05
	feminine	67	1.51	.246		
Situation	Mention	79	1.38	.113	-1,574-	.118
	feminine	67	1.42	.135		

training		N	Mean	std. Deviation	T	Sig
Knowledge	yes	30	1.58	.154	4,116	.000
	no	116	1.42	.294		
Situation	yes	30	1.43	.115	1,715	.089 _
	no	116	1.39	.126		

It is noted from the table () , that there are no statistically significant differences between the averages of the respondents ' responses to their knowledge and attitude towards hyperactivity disorder due to the gender variable, as the statistical significance of the sex variable for the two axes was greater than $\alpha = 5\%$, and it is not statistically significant, while it is There are statistically significant differences in the knowledge of teachers towards hyperactivity disorder due to the training variable, and the statistical significance was less than $\alpha (5\%)$, while there were no statistically significant differences between the averages of the respondents ' responses to their attitude towards hyperactivity disorder due to the training variable, as the statistical significance reached at The training variable (.089), which is greater than $\alpha (5\%)$, is not statistically significant.

The relationship between teachers' knowledge and attitude about children with ADHD

To determine the relationship between teachers' knowledge and attitude about children with ADHD, the results of the Pearson Correlation Test were extracted. As shown in Table No. (5.9)

Table (5.9): Extraction of Pearson Correlation test results

Knowledge	Situation
Pearson Correlation (R)	. 245**
Sig. (2-tailed)	.00 3
N	146

It is noted from the results of the table () that there is a relationship between the knowledge and attitude of teachers about children with hyperactivity disorder and attention deficit hyperactivity disorder, as the value of statistical significance was (.003), which is less than alpha (5%), and it is statistically significant, and the value of (R) = .245. That is, the relationship between the variables is a positive relationship with a weak degree.

Chapter Six:

The Discussion

6.1 Introduction

This study is believed to be the first research of its kind in Palestine that might help in understanding the school educator's knowledge and attitudes toward ADHD. Studies showed that school teachers with limited knowledge of ADHD and no prior experience working with children who have the disorder may be at a greater risk for stress and burnout (Lauren, 2018). Because of the crucial knowledge they play in spotting, diagnosing, and treating children with ADHD, teachers must be competent in dealing with the disorder (Soroa, Gorostiaga, Balluerka, & adolescents, 2013). The findings indicate that most teachers have a solid knowledge on the basic general information about children with ADHD. Teachers' attitudes about children with ADHD were typically unfavorable; yet, majority said that they enjoy working with students who have ADHD.

6.2 Teachers' knowledge

The result of this study showed that more than 80% of teachers in Hebron district in this survey reported having no formal training on ADHD. That finding agree with what researchers (Lazarus, 2019) found when they surveyed South African educators about their views on the subject of ADHD ". Two-thirds of the teachers surveyed had "not received instruction concerning ADHD," he discovered. However, (Safaan, El-Nagar, & Saleh, 2017) looked into the "knowledge, views, and attitudes of primary classroom instructors' towards ADHD students at Egyptian international schools at Governorate of Helwan." According to his research, "most teachers got training classes regarding ADHD." The

discrepancy may have resulted from education initiatives targeted at teachers in Egypt's foreign schools.

Teachers' knowledge of ADHD was tested on three fronts: background knowledge (what the disorder is and why it matters), symptom recognition and diagnosis, and treatment options. The results of the questionnaire assessing teachers' knowledge of ADHD were interpreted as follows: 38% of teachers had a good knowledge of the disorder, 46% had a fair knowledge (which may indicate a knowledge), and 14% had an inadequate knowledge of ADHD. According to research (Dilaimi, 2013), just 35% of teachers in New Zealand correctly identified ADHD as a knowledge disorder in a multiple-choice test, reflecting a general lack of familiarity with the topic among elementary school teachers. Also, "teachers' knowledge & attitude towards children with ADHD associated behaviours in Saudi Arabia" was studied (Alamri, 2014). He disclosed that "less than half of items were answered properly; wrong replies were roughly one fourth and somewhat more than a third for don't know responses, which demonstrated very inadequate knowledge regarding ADHD." The knowledge of ADHD among primary school teachers in Egypt's Beni-Suef Governorate was also investigated (Suleiman, 2015). He demonstrated that only "approximately 43 of items were answered properly, reflecting low of knowledge regarding ADHD among primary school teachers in Egypt." Furthermore, Beryl et al. (2015) discovered that "approximately 45 percent were answered properly, which suggest low of knowledge on ADHD among primary school teachers in South Africa." Instead, (Shaaban, 2014) found that "three fourths of primary teachers at Egyptian international schools in Helwan had high degree of knowledge regarding ADHD," making teachers the experts on the topic. In addition, "more than seventy percent of Italian teachers' replies were answered properly, which show good level of knowledge regarding ADHD," as reported by Alessandra et al. in 2014. It is possible that differences in teachers' average

knowledge of ADHD between the present study and previous studies can be attributed to cultural differences in the populations being studied, the presence of awareness programmes in these places, and differences in methodology among the studies (e.g., sample size, sampling method, demographic characteristics of participants, and instruments used).

In present study 80% of teachers were found to have adequate knowledge of the ADHD treatment subscale, 61% of teachers were found to have adequate knowledge of the ADHD general information subscale, and 71% of educators were found to have adequate knowledge of the ADHD symptoms and diagnosis subscale. This results consistent with (Mohammed, 2019) conclusion that "teachers greatest knowledge about the symptoms & diagnosis subscale of ADHD, less knowledge about the general information subscale, and the least knowledge about therapy subscale of ADHD" was supported by this research. In addition, (Suleiman, 2015) demonstrated that "teachers were the most knowledgeable regarding the symptoms & diagnosis subscale of ADHD, less knowledge toward general information subscale, and the least knowledge regarding treatment subscale of ADHD." Rather, (Topkin & Roman, 2015) found that "teachers in South Africa were the most knowledgeable about the general information subscale of ADHD, less knowledgeable about the treatment subscale of ADHD, and the least knowledgeable about the symptoms & diagnostic subscale of ADHD." ". Possible explanations for discrepancies between this study and others are due to variances in the study populations.

However, the result was much greater than those of research conducted in Saudi Arabia (11%) and Thailand (19.4%), Egypt (23.9%) and Nepal city (Asia) (24.2%) and India (40%).

Even though the studies utilised a cross-sectional design like ours, the observed discrepancy may be attributable to factors unique to the studies themselves, such as sample size and sampling method (random and convenient sampling approach was used in Saudi Arabia and Egypt studies).

In comparison to the teachers in Mulholland et al (2015).’s study, who only answered 62% of the identical questions correctly on average, these students performed exceptionally well. Teachers scored highest in recognising symptoms but lowest in understanding their root causes. This supports Mulholland et al (2015) .’s conclusion that teachers had the greatest symptomatic awareness.

Based on the results, it is clear that teachers are aware that hyperactivity and inattention are significant signs of the disease that need to be managed by the educator. Many teachers have voiced concern over the widespread occurrence of the disorder among students. Evidently, teachers are fully cognizant of the issue. Positively, teachers were judged to possess sufficient knowledge about the disorder.

6.3 Teachers Attitude toward ADHD

Importantly, Results of this study showed that only 33.6% of primary school teachers in Hebron district had a good attitude about ADHD, suggesting that the prevalent attitude towards ADHD is negative. However, a well-thought-out strategy and policy are still required in order to tackle the challenges on a broad enough scale to include the individuals who are most likely to have a negative outlook. Findings from studies conducted in Iran, South Africa, Egypt, and Nigeria corroborated those of the current study. This variation might be attributed to cultural differences as well as differences in sample size (n=120, 360, and 250) and sampling method (random sampling approach). This research's results were lower than those of a similar study done in Pakistan (92.2%).

Conner's teacher's rating scale for ADHD may be different from other tools used to evaluate the disorder, which may account for the variance seen.

The vast majority of teachers included in this study have voiced their distaste for working with groups of children whose conduct is indicative of ADHD and their own personal irritation with dealing with such students. This conclusion consistent with the work of Mulholland et al. (2015), who found that teachers also tend to have unfavorable attitudes toward students with learning disabilities. A similar sentiment was expressed in the "the ADHD problem" subtheme, when teachers vented their exasperation at attitudes who were too distracted to learn from class. Despite their aggravation, most teachers said they see educating students with ADHD as an opportunity to improve their own classroom practices. Despite the difficulties associated with educating students with ADHD, it seems that teachers view the disorder as an inspiration for new approaches to education. There is a deficiency of writing in this field of study.

The majority of teachers in this study were comfortable teaching students with ADHD. They also reported feeling well-versed about ADHD-related behaviours and the strategies available to curb defiant conduct. Despite this assurance, 79% said they did not get sufficient professional development on the topic of managing ADHD-type behaviors. (Youssef et al., 2015 in their study showed that training programmes for classroom teachers have a positive effect on teachers' awareness of ADHD and their attitudes and actions toward students who display ADHD-like symptoms, but there is less conclusive evidence that these programmes have a similar effect on students' actual ADHD-like behaviours (Youssef, Hutchinson, & Youssef, 2015). Other research has reached the same conclusion, emphasising the need for educators to get in-service training on attention deficit hyperactivity disorder and other developmental issues in children. It is hoped that

these therapies would help schools better identify children with ADHD, raise instructors' confidence in their abilities to handle children with the disorder, and enhance classroom management generally. Teachers also need to be more informed and equipped to work with these kids, and this is a topic that has received a lot of attention in recent years. The 'knowledge and training gap' subtheme describes how instructors' written replies demonstrate a strong need for professional development. The results support the conclusion drawn by Bornman and Donohue (2013).

Gender, education level, and years of experience working with children who have ADHD were also significant predictors of participants' level of ADHD knowledge in this study.

Higher levels of knowledge are typically seen among female teachers, which may be explained by the fact that women tend to have greater compassion for their students and spend more time interacting with them outside of school. Additionally, the current study is consistent with the aforementioned research in that both highlight the importance of teachers' years of experience in shaping students' knowledge and perspective. These results are consistent with a study by Youssef et al. (2015) on teachers' knowledge and attitudes toward attention deficit hyperactivity disorder (ADHD), in which participants reported that their own experience teaching a child with the disorder had a substantial impact on their knowledge score. Previous work with children who have ADHD may have equipped teachers with the knowledge and tools they needed to shift their perspective on the issue, which may explain the positive findings of the current study.

6.4 Limitations

The results cannot be generalized to the entire Palestinian teachers' community since they are not representative of that group.

Study only included two parts knowledge and attitudes. Attitude of the school educator's toward ADHD children may be considerably predicted by their knowledge with and perspective on the disorder thus it did not attempt to analyze their behavior and how they deal with ADHD child. However, future research should focus on evaluating teachers' real behavior in the classroom.

6.5 Applied Implications

Since teachers in this research understood the least about ADHD aetiology and suggested treatments, these should be the primary focuses of training programmes and professional-development activities aimed at teachers. In addition, training programmes should emphasise the development of specific abilities in an effort to provide teachers with useful tools for addressing children hyperactive and inattentive tendencies in the classroom. Given that teachers' years in the classroom are not a reliable predictor of their knowledge of ADHD, it is important to train teachers at all levels. In addition, the Ministry of Education can find policies and strategies on how to educate these children, how to deal with them, and how to communicate with the children's parents.

6.6 Recommendations

For Policy makers: teachers should be educated about ADHD including signs and symptoms, etiology, management, and behaviors that exist, as well as concerns around identification (particularly in the invisible cases or undiagnosed).

For teachers: To increase their awareness that will lead to more positive attitude toward students affected with ADHD.

For Future research: to conduct qualitative study for more understanding of teachers experience and their attitude toward ADHD.

To conduct observational study to investigate teachers practice toward students affected with ADHD.

6.7 Conclusion

This research aimed to find out how much elementary school teachers in the Hebron school district know about ADHD and how they felt about the disorder. The purpose of this research was to assess teachers' knowledge and perspectives on attention deficit hyperactivity disorder (ADHD), as well as to identify any attitudes that could influence these factors. The findings show that educators' knowledge of ADHD was not only competent, but much higher than that found in previous studies and surveys of their peers around the knowledge. In general, attitudes have a pessimistic outlook on working with students that display ADHD-like behaviors. Teachers who have gotten specialized training in working with children's who have ADHD have a more positive outlook on their students with the disorder and a greater depth of knowledge about how to best teach them. The number of students with ADHD diagnoses one is presently working with, as well as the teacher's age, years of experience, training, and knowledge, all served as significant predictors of the type of teachers' knowledge. These results emphasize the need of educating teachers on ADHD to increase their knowledge and alter their attitudes on the disorder. This will provide teachers the tools they need to establish classrooms where students with ADHD have the best chance of succeeding academically and socially.

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Appendices:

Annex I: the questionnaire

Socio demographic data

➤ **Age**

-

➤ **Gender**

- Male
- Female

➤ **Training**

Have you ever received specific ADHD training?

- Yes
- No

➤ **level of education**

- Teacher's college
- Bachelor's
- Post-grad diploma
- Masters

➤ **taught child with ADHD**

- Yes
- No
- Don't know

Knowledge questionnaire

Question's	yes	No	Don't know
Factor 1. Etiology of ADHD			
1.A critical and authoritarian style of education by parents can lead to ADHD			
2.In children, ADHD may be caused by the stress generated by the current pace of life			
3.Stressful events such as divorce of parents or the birth of a new brother or sister may be the cause of ADHD			
4.ADHD can be caused by a bad education or a chaotic home environment			
Factor 2. Symptoms/Diagnosis of ADHD			
1.Children with ADHD have difficulty complying with the rules of the classroom and social norms			
2.Children with ADHD often have difficulty controlling their emotions, especially anger			
3.Children with ADHD complain when they have to perform tasks that require sustained mental effort and try to avoid doing them			
4.Children with ADHD often lose items such as clothing, school supplies, toys, etc.			
5.Children with ADHD have difficulty awaiting his or her turn			
6.Children with ADHD act without thinking through the consequences of their actions			
7.Children with ADHD interrupt or intrude on the activities of others			
8.Children with ADHD start to answer			

Question's	yes	No	Don't know
before their interlocutor finishes asking the question			
9.Children with ADHD seem not to listen when spoken to			
10.Children with ADHD have trouble completing the tasks they have started			
11.Children with ADHD often tend to forget things			
Factor 3. General information about ADHD			
1.In general, excessive activity reduces in adolescence, though the impulsiveness and difficulties with attention remain			
2.The proportion of boys and girls with ADHD is similar			
3.Boys with ADHD tend to have a greater degree of hyperactivity-impulsivity than girls.			
4.Young people with ADHD drop out of school more frequently than others.			
Factor 4. Treatment of ADHD			
1.The teacher must provide opportunities for the student with ADHD to channel their excessive movement.			
2.The performance and school adjustment of children with ADHD may improve if teachers have specific training in this disorder.			
3.There are specific techniques and programs to improve the attention span of children with ADHD.			
4.Receiving general information about ADHD improves the attitudes of teachers, parents and classmates towards children who suffer from it.			
5.Parents and teachers of children with ADHD need to actively participate in the			

Question's	yes	No	Don't know
application of psychological techniques.			
6.The collaboration of the teacher with the treatment being received by the child with ADHD has an influence on the result of that treatment.			
7.Waiting for the symptoms of ADHD to improve over the years, without any kind of treatment implies, means taking away opportunities for the child's future.			

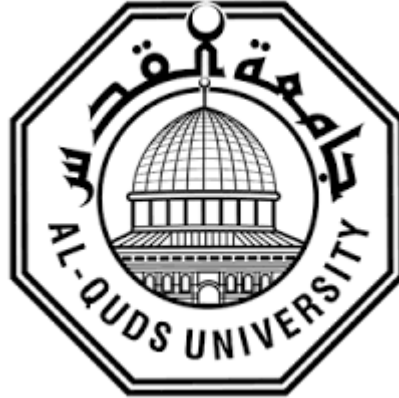
Attitude questionnaire

Question's	Correct	Incorrect	Don't know
1.ADHD children misbehave because they are naughty			
2.ADHD is an excuse for children to misbehave			
3. Managing the behavior of ADHD students is easy			
4.ADHD children misbehave because they do not like following rules			
5.ADHD is an American phenomenon			
6.ADHD children cannot change the way they behave			
7. Children who cannot sit still in class simply need to be disciplined			
8. All children with ADHD should take medication			
9.You cannot expect as much from an ADHD child as you can from other children			
10.Most students with ADHD do not really disrupt classes that much			
11. Children with ADHD could control their behavior if they really wanted to			
12. ADHD students could do better if only they'd try harder			
13. ADHD is diagnosed too often			
14.ADHD is a behavioral disorder that should not be treated with medication			
15.Young ADHD children should be treated more leniently than older ADHD children			
16. Other students do not learn as well as they should when there is an ADHD child in the class			
17.Children with ADHD should not be taught in the regular school system			

Question's	Correct	Incorrect	Don't know
18. Students with ADHD are just as difficult to manage in the classroom as any student			
19. ADHD children have little control over the way they behave			
20. The extra time teachers spend with ADHD students is at the expense of students without ADHD			
21. Having an ADHD child in my class would disrupt my teaching			
22. Medications such as Ritalin and Dexamphetamine should only be used as a last resort			
23. ADHD children should be taught by special education teachers			
24. ADHD is a legitimate educational problem			
25. ADHD is a valid diagnosis			

Annex II: Arabic Questionnaire

بسم الله الرحمن الرحيم



كلية الدراسات العليا

حضرة المعلم/ة المحترم/ة

تحية طيبة وبعد،،،

تقوم الباحثة بإعداد دراسة حول موضوع وعي وموقف معلمي المدارس الابتدائية الحكومية حول اضطراب فرط الحركة وتشتت الانتباه في محافظة الخليل. لقد تم اختياركم لتكونوا جزءاً من عينة الدراسة بطريقة عشوائية، لذا نضع بين أيديكم هذه الاستبانة راجين تقديم المساعدة، وذلك بالإجابة عن فقرات الاستبانة بدقة وموضوعية لما له أثر كبير في الحصول على نتائج دقيقة، علماً بأن كل ما يرد في إجاباتكم سيكون موضع احترام وسوف يعامل بسرية تامة ولن يستخدم إلا لأغراض البحث العلمي فقط، وعليه لا داعي لكتابة الاسم أو أية معلومات تدل على شخصكم الكريم. إن الباحثة على استعداد لتزويدكم بنتائج هذه الدراسة في حال الطلب مع الشكر الجزيل لتعاونكم.

وللاستفسار يمكنكم الاتصال على جوال رقم: 0592504826

أو التواصل عبر البريد الإلكتروني التالي: ajibarah@gmail.com

الباحثة : اسيل جبارة.

إشراف: الدكتورة مها نحال.

جامعة القدس/ابو ديس

2022

البيانات الديموغرافية الاجتماعية

➤ العمر

.....

➤ الجنس

☐ ذكر ☐ أنثى

➤ التدريب

هل تلقيت من قبل تدريباً محدداً لاضطراب فرط الحركة وتشتت الانتباه؟

☐ نعم ☐ لا

➤ مستوى التعليم

☐ المدرسة الثانوية

☐ دبلوم

☐ بكالوريوس

☐ دبلوم عالي

☐ ماجستير

➤ علمت طفل مصاب باضطراب فرط الحركة وتشتت الانتباه؟

☐ نعم ☐ لا ☐ لا أعرف

استبيان المعرفة

ضع/ي اشارة x في مكان الاجابة

الاسئلة	نعم	لا	لا اعرف
1. مسببات اضطراب فرط الحركة وتشتت الانتباه عند الاطفال			
1.1 يمكن أن يؤدي أسلوب التعليم النقدي والاستبدادي من قبل الوالدين إلى الاضطراب			
2.1 في الأطفال ، قد يكون سبب الاضطراب هو الضغط الناتج عن وتيرة الحياة الحالية			
3.1 الأحداث المجعدة مثل طلاق الوالدين أو ولادة أخ أو أخت جديدة قد تكون سبب الاضطراب			
4.1 يمكن أن يكون سبب الاضطراب هو سوء التعليم أو البيئة المنزلية الفوضوية			
2. اعراض/تشخيص اضطراب فرط الحركة وتشتت الانتباه عند الاطفال			
1.2 يجدون صعوبة في الامتثال لقواعد الفصل والأعراف الاجتماعية			
2.2 غالبًا ما يجدون صعوبة في التحكم في عواطفهم ، وخاصة الغضب			
3.2 يشكون عندما يتعين عليهم أداء مهام تتطلب مجهودًا عقليًا متواصلًا ومحاولة تجنب القيام بها			
4.2 غالبًا ما يفقدون أشياء مثل الملابس واللوازم المدرسية والألعاب وما إلى ذلك.			
5.2 يجدون صعوبة في انتظار دورهم			
6.2 يتصرفون دون التفكير في عواقب أفعالهم			
7.2 يقاطعون أو يتطفلون على أنشطة الآخرين			
8.2 يبدأ الأطفال في الإجابة قبل أن ينتهي المحاور من طرح السؤال			
9.2 يبدو انهم لا يستمعون عند التحدث إليهم			
10.2 يجدون صعوبة في إكمال المهام التي بدأوها			
11.2 غالبًا ما يميلون إلى نسيان الأشياء			
3. معلومات عامة حول اضطراب فرط الحركة وتشتت الانتباه عند الاطفال			
1.3 بشكل عام ، ينخفض النشاط المفرط في مرحلة المراهقة ، على الرغم من استمرار الاندفاع وصعوبة الانتباه.			

			2.3 نسبة الأولاد والبنات المصابين بتشابهة.
			3.3 يميل الصبيان المصابون إلى درجة أعلى من فرط النشاط والاندفاع مقارنة بالفتيات.
			4.3 الشباب المصابون يتركون المدرسة أكثر من غيرهم.

4. علاج اضطراب فرط الحركة وتشتت الانتباه لدى الاطفال			
			1.4 يجب على المعلم توفير الفرص للطلاب لتوجيه حركته المفرطة.
			2.4 قد يتحسن أداء الأطفال وتكيفهم المدرسي إذا حصل المعلمون على تدريب خاص في هذا الاضطراب.
			3.4 هناك تقنيات وبرامج محددة لتحسين مدى انتباههم.
			4.4 الحصول على معلومات عامة حول الاضطراب يحسن مواقف المعلمين وأولياء الأمور وزملاء الدراسة تجاه الأطفال الذين يعانون منه.
			5.4 أولياء أمورهم ومعلميهم يحتاجون إلى المشاركة الفعالة في تطبيق الأساليب النفسية.
			6.4 تعاون المعلم مع العلاج له تأثير على نتيجة ذلك العلاج.
			7.4 انتظار تحسن الأعراض على مر السنين ، دون أي نوع من العلاج ، يعني إهدار الفرص لمستقبل الطفل.

استبيان الموقف

ضع/ي إشارة x في مكان الاجابة

الاسئلة	صحيح	غير صحيح	لا اعرف
1. أطفال اضطراب فرط الحركة وتشتت الانتباه يسيئون التصرف لأنهم أشرار			
2. اضطراب فرط الحركة وتشتت الانتباه هو ذريعة للأطفال لإساءة التصرف			
3. إدارة سلوك طلاب اضطراب فرط الحركة وتشتت الانتباه أمر سهل			
4. أطفال اضطراب فرط الحركة وتشتت الانتباه يسيئون التصرف لأنهم لا يحبون اتباع القواعد			
5. اضطراب فرط الحركة وتشتت الانتباه هو ظاهرة أمريكية			
6. لا يستطيع الأطفال المصابون بفرط الحركة وتشتت الانتباه تغيير الطريقة التي يتصرفون بها			
7. الأطفال الذين لا يستطيعون الجلوس في الفصل يحتاجون ببساطة إلى التأديب			
8. يجب على جميع الأطفال المصابين باضطراب فرط الحركة وتشتت الانتباه تناول الدواء			
9. لا يمكنك توقع الكثير من الأطفال المصابين باضطراب فرط الحركة وتشتت الانتباه بقدر ما يمكنك توقعه من الأطفال الآخرين			
10. معظم الطلاب المصابين باضطراب فرط الحركة وتشتت الانتباه لا يتسببون في اضطراب الصفوف كثيرًا			
11. يمكن للأطفال المصابين باضطراب فرط الحركة وتشتت الانتباه التحكم في سلوكهم إذا أرادوا ذلك حقًا			
12. يمكن لطلاب اضطراب فرط الحركة وتشتت الانتباه أن يكونوا أفضل حالًا إذا حاولوا بجدية أكبر			
13. يتم تشخيص اضطراب فرط الحركة وتشتت الانتباه كثيرًا			
14. اضطراب فرط الحركة وتشتت الانتباه هو اضطراب سلوكي لا ينبغي علاجه بالأدوية			

			15. يجب معاملة الأطفال الصغار المصابين باضطراب فرط الحركة وتشتت الانتباه بشكل أكثر تساهلاً من الأطفال الأكبر سنًا
			16. الطلاب الآخرون لا يتعلمون كما ينبغي عندما يكون هناك طفل مصاب باضطراب فرط الحركة وتشتت الانتباه في الفصل
			17. لا ينبغي تعليم الأطفال المصابين باضطراب فرط الحركة وتشتت الانتباه في نظام المدارس العادية
			18. يصعب التعامل مع الطلاب المصابين باضطراب فرط الحركة وتشتت الانتباه في الفصل مثل أي طالب
			19. الأطفال الذين يعانون من اضطراب فرط الحركة وتشتت الانتباه لديهم القليل من السيطرة على الطريقة التي يتصرفون بها
			20. الوقت الإضافي الذي يقضيه المعلمون مع طلاب اضطراب فرط الحركة وتشتت الانتباه يكون على حساب الطلاب غير المصابين باضطراب فرط الحركة ونقص الانتباه
			21. إن وجود طفل مصاب باضطراب فرط الحركة وتشتت الانتباه في صفي من شأنه أن يعطل تدريسي
			22. الأدوية مثل ريتالين وديكسامفيتامين يجب أن تستخدم فقط كملاذ أخير
			23. يجب أن يتعلم الأطفال المصابون باضطراب فرط الحركة وتشتت الانتباه من قبل معلمي التربية الخاصة
			24. اضطراب فرط الحركة وتشتت الانتباه هو مشكلة تعليمية مشروعة
			25. اضطراب فرط الحركة وتشتت الانتباه هو تشخيص فعال

Annex III: Ethical approval

Al Quds University
Faculty of Health Professions
Jerusalem – Abu Dis



جامعة القدس
كلية المهن الصحية
القدس – أبو ديس

Research Ethics Subcommittee of Faculty of Health Professions
Letter of approval

April 14, 2022

Ref. No.: RESC/2022-6

Dear Applicants, (Dr. Maha Nahhal and Ms. Aseel Jibarah)
Program: MSc Nursing Department

The Research Ethics subcommittee of Faculty of Health Professions has recently reviewed your proposal entitled (**Awareness and attitude of elementary school teachers about attention deficit hyperactivity disorder at Hebron governorate**) submitted by (Dr. Maha Nahhal). Your proposal is deemed to meet the requirements of research ethics at Al-Quds University, but further assessment is required by the Central Research Ethics Committee of Al-Quds University. We wish you all best for the conduct of the project.

Hussein ALMasri
Research Ethics Subcommittee Chair
Faculty of Health Professions

Hussein ALMasri

CC: File

CC: Committee members

Tel. Fax: 02 2791243

Email: dean@hpro.alquds.edu

تلفاكس: 02 2791243

Annex IV: Facilitating Letter

Al-Quds University
Faculty of Health Professions
Nursing Department
Jerusalem-Abu Dies

بسم الله الرحمن الرحيم

جامعة القدس
AL-QUDS UNIVERSITY

كلية المهن الصحية
دائرة التمريض
القدس - أبو ديس

التاريخ : 2022/2/26

حضرة الدكتور حكم حجة المحترم
مديرية تربية جنوب الخليل

الموضوع : الحصول على معلومات لطالبة الماجستير صحة الام والطفل

تحية طيبة وبعد ،،،،

يرجى مساعدة الطالبة " اسيل بسام جباره " في تسهيل مهمتها لجمع المعلومات من المدرسات حول مدى معرفتهن في اضطراب فرط الحركة لدى الاطفال لاغراض بحثية علمية لان الطالبة تدرس الماجستير في صحة الام والطفل في جامعة القدس .

وتفضلوا بقبول فائق الاحترام والتقدير ،،

دمها نحال
رئيسة دائرة القبالة

دائرة التمريض
Nursing Department

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