

**Primary School Teachers' Experience of Teaching Students with Attention Deficit  
Hyperactivity Disorder in the Suburban Area of Aktobe**

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Submitted in partial fulfillment of the requirements for the degree of

Master of Science

in

Educational Leadership

Nazarbayev University Graduate School of

Education

April, 2024

Word count: 19176

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Date: 19 of October, 2023

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**Moldir Iskakova**

---

This letter now confirms that your research project titled...

*Experiences of primary school teachers teaching students with attention deficit hyperactivity disorder (ADHD) in suburban Aktobe*

---

has been approved by the Graduate School of Education Ethics Committee of Nazarbayev University.

You may proceed with contacting your preferred research site and commencing your participant recruitment strategy.

Yours sincerely,

*Oliver Mutanga*

Oliver Mutanga (PhD)

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## ACKNOWLEDGMENT

I wish to formally acknowledge the invaluable contributions of Professor Oliver Mutanga, whose professionalism, expertise, and unwavering support were instrumental in the success of my research endeavor. His mentorship propelled me to surpass my own expectations, and I remain deeply indebted to his guidance. Furthermore, I extend my gratitude to Professors Filiz Polat, Mir Afzal, Michael Makoelle, and the Academic English instructors. Their commitment to teaching provided the essential knowledge and inspiration that pushed me in my educational journey. I am also grateful for the collaboration of my group mates, Aigerim Salykova and Zhuldyz Tergeussizova. Their partnership made this research process an enriching experience. My heartfelt thanks go to my parents, mother-in-law, and husband, whose unconditional love and belief in my abilities have been a constant source of strength. Lastly, I recognize my own diligence and commitment to this work. May this mark the beginning of a long and impactful research career.

## ABSTRACT

### **Primary school teachers' experience of teaching students with Attention Deficit Hyperactivity Disorder (ADHD) in the Suburban area of Aktobe**

Inclusive education, a global movement advocating for the right to education for all children regardless of background, is important for social integration and empowerment of students to thrive in any education system. Aligning with the principles of the Sustainable Development Goals (SDGs) and the Convention on the Rights of Persons with Disabilities (CRPD), it fosters equal participation in society. As Kazakhstan transits from its Soviet-era educational system, teachers, crucial stakeholders in implementing inclusive practices and addressing diverse student needs, become central to this effort. Understanding their experiences, particularly with students with disabilities like Attention Deficit Hyperactivity Disorder (ADHD), is vital to inform policy and practice during this transformative period. Failing to acknowledge teachers' experiences jeopardizes Kazakhstan's progress towards SDGs 4 and 10, and breaches the CRPD's 'leave no one behind' principle. Kazakhstan's philosopher - Abai Kunanbayev's educational philosophy, advocating for the holistic development of all students, further strengthens the need for inclusive approaches, including for students with ADHD. This study explores the experiences of primary school teachers in Aktobe's suburbs regarding students with ADHD. Employing a qualitative research design informed by Bronfenbrenner's ecological systems theory, the study involved in-depth, semi-structured interviews with ten teachers from three mainstream schools in December 2023. Data analysis employed manual coding to identify key themes. The findings revealed three crucial points. First, most participants displayed limited knowledge about ADHD, with some having no prior exposure to the disorder. Second, the majority lacked formal training in teaching students with ADHD, and those with some training expressed dissatisfaction with the content. Third, despite these limitations, some teachers demonstrated agency by developing their own strategies to support students exhibiting behavioral concerns or suspected ADHD. Understanding teachers' experiences holds significant value for

policy, research, and practice. This study can inform the development of contextually appropriate interventions and training programs in inclusive education, leading to improved educational policies in Kazakhstan. The study identified a critical need for professional development and inclusive education training to equip teachers for effectively teaching diverse learners, including those with ADHD. The findings have the potential to influence existing laws, regulations, and resource allocation across all educational levels. By enhancing teachers' understanding through inclusive education training, this research paves the way for improved teaching practices, ultimately creating a more supportive learning environment for students with ADHD in Kazakhstan. Additionally, the study raises new research questions that warrant further investigation. This research holds significant value for the advancement of inclusive education in Kazakhstan and geographically isolated regions with similar contexts worldwide.

*Keywords:* Abai, ADHD, Ecological systems theory, experience, Kazakhstan, primary school teachers, qualitative research

## Аңдатпа

### Ақтөбе маңындағы ауданда гипербелсенділік және зейін жетіспеушілігінің белгілері (ГЗЖБ) бар оқушыларды оқыту бойынша бастауыш сынып мұғалімдерінің тәжірибесі

Инклюзивті білім беру-шығу тегіне қарамастан барлық балаларға білім беру құқығын жақтайтын жаһандық қозғалыс. Инклюзивті білім беру кез келген білім беру жүйесінде керекті нәтижеге жету үшін оқушылардың әлеуметтік интеграциясы мен мүмкіндіктерін кеңейту үшін маңызды. Тұрақты дамудың мақсаттары (ТДМ) және мүгедектердің құқықтары туралы Конвенцияның (МҚК) қағидаттарына сәйкес инклюзивті білім беру қоғам өміріне тең қатысуға ықпал етеді. Қазақстан Кеңес дәуіріндегі білім беру жүйесінен бас тартқан сайын, педагогтар инклюзивті практиканы енгізуге және оқушылардың әртүрлі қажеттіліктерін қанағаттандыруда маңызды мүдделі тараптар болып табылады және осы күш-жігердің орталығына айналады. Мұғалімдердің тәжірибесін, гипербелсенділік және зейін жетіспеушілік белгілері (ГЗЖБ) сияқты мүмкіндігі шектеулі оқушылармен тәжірибені түсіну осы трансформациялық кезеңде саясат пен тәжірибені дамыту үшін өте маңызды. Мұғалімдердің тәжірибесін мойындамау, Қазақстанның ТДМ 4 және 10-ға қол жеткізудегі ілгерілеуіне қауіп төндіреді және МҚК-нің "ешкімді шеттеуі" қағидатын бұзады. Қазақстандық философы Абай Құнанбаевтың барлық оқушылардың тұтас дамуын жақтайтын білім беру философиясы инклюзивті тәсілдердің, оның ішінде ГЗЖБ бар оқушылар үшін қажеттілігін одан әрі күшейтеді. Бұл зерттеу Ақтөбе қаласы маңындағы ауданның бастауыш сынып мұғалімдерінің ГЗЖБ бар оқушыларға қатысты тәжірибесін қарастырады. Бронфенбрэннердің экологиялық жүйелер теориясына негізделген сапалы зерттеу аясында 2023 жылдың желтоқсанында үш жалпы білім беретін мектептің он мұғалімімен терең жартылай құрылымды сұхбат жүргізілді. Деректерді талдау кезінде негізгі тақырыптарды анықтау үшін қолмен кодтау қолданылды. Нәтижелері бойынша үш маңызды

мәселені анықтады. Біріншіден, қатысушылардың көпшілігі ГЗЖБ туралы шектеулі білімдерін көрсетті, ал кейбіреулері бұрын бұл бұзылумен кездеспеген. Екіншіден, олардың көпшілігінде ГЗЖБ бар студенттерді оқыту үшін ресми дайындық болған жоқ, ал кейбір дайындықтары бар адамдар мазмұнға наразылықтарын білдірді. Үшіншіден, осы шектеулерге қарамастан, кейбір мұғалімдер мінез-құлық мәселелері бар немесе ГЗЖБ күдіктілері бар оқушыларды қолдаудың өзіндік стратегияларын әзірлеу арқылы бастама көтерді. Мұғалімдердің тәжірибесін пайдалану саясатқа, зерттеулерге және тәжірибеге үшін үлкен маңызға ие. Бұл зерттеу инклюзивті білім беру саласындағы контекстке сәйкес іс-шаралар мен оқу бағдарламаларын әзірлеу үшін негіз бола алады, бұл Қазақстандағы білім беру саясатын жетілдіруге ықпал етеді. Зерттеу мұғалімдерді әртүрлі оқушыларды, соның ішінде ГЗЖБ-і бар оқушыларды тиімді оқытуға дайындау үшін кәсіби даму мен инклюзивті білім беруді оқытудың шұғыл қажеттілігін анықтады. Нәтижелер қолданыстағы заңдарға, ережелерге және білім берудің барлық деңгейлерінде ресурстарды бөлуге әсер етуі мүмкін. Инклюзивті білім беруді оқыту арқылы оқытушылардың түсіну деңгейін арттыра отырып, бұл зерттеу оқыту әдістерін жетілдіруге жол ашып Қазақстанда ГЗЖБ бар оқушылар үшін неғұрлым қолайлы оқу ортасын жасайды. Сонымен қатар, зерттеу қосымша талдау қажет ететін жаңа зерттеу сұрақтарын тудырады. Бұл зерттеу Қазақстанда және бүкіл әлем бойынша осындай жағдайлары бар географиялық оқшауланған аймақтарда инклюзивті білім беруді ілгерілету үшін үлкен маңызға ие.

*Түйінді сөздер:* Абай, ГЗЖБ, экологиялық жүйелер теориясы, тәжірибе, Қазақстан, бастауыш сынып мұғалімдері, сапалы зерттеу

## Аннотация

### **Опыт учителей начальных классов по обучению учащихся с синдромом дефицита внимания и гиперактивности (СДВГ) в пригородном районе Актобе**

Инклюзивное образование — глобальное движение, выступающее за право на образование для всех детей, независимо от происхождения. Инклюзивное образование важно для социальной интеграции и расширения возможностей учащихся для достижения успеха в любой системе образования. Соответствуя принципам Целей устойчивого развития (ЦУР) и Конвенции о правах инвалидов (КПИ), инклюзивное образование способствует равному участию в жизни общества. По мере того, как Казахстан отказывается от образовательной системы советской эпохи, преподаватели являются важнейшими заинтересованными сторонами во внедрении инклюзивной практики и удовлетворении разнообразных потребностей учащихся и становятся центральными в этих усилиях. Понимание опыта учителей, в особенности опыта с учащимися с ограниченными возможностями, такими как синдром дефицита внимания и гиперактивности (СДВГ), имеет важное значение для разработки политики и практики в этот преобразующий период. Непризнание опыта учителей ставит под угрозу прогресс Казахстана в достижении ЦУР 4 и 10 и нарушает принцип КПИ "не оставлять никого в стороне". Философия образования казахстанского философа Абая Кунанбаева, выступающая за целостное развитие всех учащихся, еще больше усиливает необходимость инклюзивных подходов, в том числе для учащихся с СДВГ. В этом исследовании рассматривается опыт учителей начальных классов в пригородном районе Актобе в отношении учащихся с СДВГ. В рамках качественного исследования, основанного на теории экологических систем Бронфенбреннера, были проведены углубленные полуструктурированные интервью с десятью учителями из трех общеобразовательных школ в декабре 2023 года. При анализе данных использовалось ручное кодирование для определения ключевых тем. Результаты выявили три важных момента. Во-первых,

большинство участников продемонстрировало ограниченные знания о СДВГ, а некоторые ранее не сталкивались с этим расстройством. Во-вторых, у большинства из них не было формальной подготовки по обучению студентов с СДВГ, а те, кто имел некоторую подготовку, выразили недовольство содержанием. В-третьих, несмотря на эти ограничения, некоторые учителя проявили инициативу, разработав собственные стратегии поддержки учащихся, проявляющих проблемы с поведением или подозреваемых в СДВГ. Понимание опыта учителей имеет большое значение для политики, исследований и практики. Это исследование может послужить основой для разработки соответствующих контексту мероприятий и учебных программ в области инклюзивного образования, что приведет к совершенствованию образовательной политики в Казахстане. Исследование выявило острую потребность в профессиональном развитии и обучении инклюзивному образованию, чтобы подготовить учителей к эффективному обучению различных учащихся, в том числе с СДВГ. Полученные результаты могут повлиять на существующие законы, нормативные акты и распределение ресурсов на всех уровнях образования. Повышая уровень понимания преподавателями посредством обучения инклюзивному образованию, это исследование прокладывает путь к совершенствованию методов преподавания, что в конечном итоге создает более благоприятную среду обучения для учащихся с СДВГ в Казахстане. Кроме того, исследование поднимает новые исследовательские вопросы, которые требуют дальнейшего изучения. Это исследование имеет большое значение для продвижения инклюзивного образования в Казахстане и географически изолированных регионах с аналогичными условиями по всему миру.

*Ключевые слова:* Абай, СДВГ, теория экологических систем, опыт, Казахстан, учителя начальных классов, качественное исследование

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## **1. Introduction**

### **1.1 Introduction and Background of the Study**

This chapter provides the contextual background of the thesis. The problem statement and the purpose of the study are also clearly stated in this chapter. Research questions, followed by a discussion of the significance and contribution of the study are presented. Finally, this chapter concludes with an outline of the study.

Globally, since the 1960s, the concept of inclusive education has undergone significant transformation (Norwich, 2008). More specifically, during the last decade, the approach to disability has shifted from the medical model to a social model and now to a more human rights-focused approach with an emphasis on reducing societal barriers and upholding the rights of everyone (Adoyo & Odeny, 2015). Thus, instead of focusing on medical interventions and expressions, such as ‘special educational needs,’ ‘special-need measures,’ and ‘medical assessment,’ the new approaches have shifted to progressive and pedagogic expressions such as ‘individual needs’ and ‘pedagogical assessment’ which are focused on the unique needs of each individual (Arduin, 2015, p. 114).

A turning point for the global inclusive education agenda was the Salamanca Statement in 1994 (UNESCO, 2018). Research by UNESCO indicates that the Salamanca Declaration significantly accelerated the move toward inclusive education (UNESCO, 2018). Initially focused mainly on children with disabilities, the declaration expanded the scope to include children from diverse socioeconomic backgrounds. It concluded that “every child possesses unique characteristics, interests, abilities, and learning needs” and affirmed that each child has a “fundamental right to education” (UNESCO, 2018, p. 3).

Following the Salamanca Statement, Kazakhstan gradually developed inclusive education policies in 1994 by making amends and signing the declaration (Makoelle, 2020a). A critical shift in Kazakhstan's educational policy occurred in 1995 through the adoption of Article 14(2) of the

Constitution, emphasizing non-discrimination and equal access to education for all (Makoelle, 2020b). Furthermore, Kazakhstan adopted the Convention on the Rights of Persons with Disabilities (CRPD) in 2015, intending to preserve the rights and dignity of individuals with disabilities (Makoelle & Somerton, 2021).

While these legal shifts signal Kazakhstan's intention to pursue a more inclusive educational system, the country still faces several challenges in achieving inclusive education. The foundation of inclusive education in Kazakhstan is the Psychological Medical and Pedagogical Commission (PMPC), rooted in the Soviet-era medical model, which treats disability as a condition for medical interventions (Makoelle, 2020b). By law, children with disabilities need a PMPC assessment to enter mainstream schools (HRW, 2019). Despite its critical role in determining a child's educational future, parents often find the PMPC's evaluations hurried, inconsiderate, and superficial (HRW, 2019).

At school level, teachers tend to be the first people to observe the first signs and symptoms of learning and behavioral challenges among students, particularly conditions such as Attention Deficit Hyperactivity Disorder (ADHD) and also support students who have it (Berri & Al-Hroub, 2016). Since Kazakhstan prioritizes inclusive education and intends to make 70% of its schools inclusive by 2023 (Makoelle, 2020b), understanding the experiences and perceptions of in-service teachers regarding ADHD and students with ADHD is crucial.

## **1.2 Statement of the Problem**

Inclusive education is gaining traction worldwide but its implementation still faces significant challenges (Mitchell, 2008). For example, in South Africa, obstacles like teachers' attitudes, insufficient teacher preparation and training, and an absence of clarity in policy and implementation procedures affect the implementation of inclusive education (Makoelle, 2020b). Research conducted in Zimbabwe also highlights numerous obstacles to inclusive education. The challenges include scarcity of resources, inadequate teacher training in inclusion, limited

government commitment, prevailing societal attitudes towards disability, insufficient funding, a shortage of trained staff, and the absence of robust disability laws (Mutanga, 2022). As will be made evident in the literature review chapter, there is little research done in Kazakhstan on ADHD, and it is clear more studies are needed to explore this condition if the country aims to be truly inclusive.

The roles and responsibilities of general education teachers have significantly expanded since inclusive education was introduced into educational systems worldwide. Teachers are now expected to take on roles not previously part of their teaching repertoires (Kuyini et al., 2021). Thus, the transformative approach to education systems toward inclusive education is centered on teacher education (Makoelle & Burmistrova, 2021; Sharma et al., 2008). Additionally, since teachers play a crucial role in the lives of all children, well-trained teachers can support students with special needs and provide quality education to everyone as it is an important component of inclusion (Haug, 2016).

Since students spend most of their time at school, teachers are likely to encounter students with ADHD and typically become aware of ADHD difficulties and their impact on students' academic performance and behavior (Kewley, 2011). This is because teachers monitor students' academic performance and behavior during the day. As a result, it is crucial for teachers to have the knowledge and abilities necessary to establish inclusive classrooms and for school leaders to create an inclusive and innovative atmosphere where teachers can thrive (Schuelka, 2018). However, lack of knowledge regarding ADHD could result in many general practitioners feeling less confident and consequently less able to identify and manage the condition (French et al., 2019). Although studies exist globally on how teachers manage ADHD in educational settings, Kazakhstan presents a distinct case with little research in this area. This gap in research leaves education practitioners needing more contextually relevant insights. Therefore, it is crucial to attend to this issue because unmanaged ADHD leads to long-term deficits in various cognitive and behavioral domains (French et al., 2019). Failure to address this research gap will not only lead to a failure by Kazakhstan to

meet the Sustainable Development Goals 4 and 10 but also fail children with disabilities in Kazakhstan who deserve equal opportunities as other citizens.

### **1.3 Purpose of the Study**

The aim of this study is to explore the teachers' experiences in dealing with students with ADHD in primary schools in the suburban area of Aktobe. In detail, this study concentrates on three main components of exploration, which can help to comprehend the primary school teachers' experience:

- to investigate teachers' understanding of ADHD
- to examine teachers' attitudes toward teaching students with ADHD
- to explore the experiences of teachers regarding teaching students with ADHD.

### **1.4 Research Questions**

For the exploration of teachers' knowledge, attitudes, and, as a consequence, experience toward dealing with students with ADHD, the following research questions are addressed by this study:

1. How do the teachers working with primary school students with ADHD understand ADHD?
2. What strategies do teachers use when teaching primary school students with ADHD?
3. What challenges do teachers face during the educational process with primary school students with ADHD?
4. What implications can be drawn from the study findings for policy, practice, and research?

### **1.5 Significance and Contribution of the Study**

Understanding teachers' experiences is critical for policy, research, and practice. In terms of policy, this study can contribute to developing contextually appropriate interventions and training

programs regarding inclusive education in the country. This research can improve education practices in Kazakhstan by enhancing the learning environment for students with ADHD and improving teachers' job satisfaction. In addition, this study can contribute to the development of inclusive education in Kazakhstan by raising awareness about inclusive education, especially ADHD, in the suburban area of Aktobe; a workshop with local administrators to disseminate the research findings could make this possible. The study will also contribute to the scholarship by publishing a peer-reviewed article based on the study.

### **1.6 Outline of the Thesis**

This thesis is composed of six chapters. The first chapter introduces this study by describing the background information, the problem statement, and the research's purpose, which is to explore teachers' experiences in teaching students with ADHD in the suburban primary schools of Aktobe. Research questions and the significance of the study are also presented. The second chapter discusses the key literature informing this study by presenting the main concepts and the theoretical framework used in this study. The following chapter presents the methodology and elaborates on the research design and the research site. The data collection and data analysis procedures along with the ethical considerations are also discussed in the chapter. The fourth chapter presents the data that will be collected through interviews with the teachers while the fifth chapter will discuss these findings. The last chapter concludes the thesis by discussing the implications of the findings on policy, practice and research.

### **1.7 Conclusion**

This introduction chapter provides a clear description of the background of the study and the problem statement. By presenting the study's purpose, research questions and also addressing its significance and potential contribution, this chapter reinforces the need to explore teachers' understanding, attitudes, and experiences in dealing with primary school students with ADHD in the suburban area of Aktobe. Teachers play an essential role in the educational process; therefore,

knowing the main problems they encounter could enhance Kazakhstan's education practices and improve the comprehension of inclusive education and ADHD in the suburban area of Aktobe.

The following chapter will present the literature review by focusing on the main concepts of this study: teachers' knowledge, attitudes of teachers, and their experiences in working with students with ADHD. The theoretical framework applied in this study that helps organize and comprehend the details surrounding teachers' experiences working with students with ADHD will also be discussed.

## Chapter 2. Literature Review

### 2.1 Introduction

As stated in Chapter 1, this study focuses on exploring teachers' experiences in teaching students with ADHD in primary suburban schools of Aktobe. The literature review concentrates on the various studies conducted on the topic.

This chapter is devoted to key empirical and conceptual studies, followed by the theoretical framework that describes how Bronfenbrenner's Ecological Systems theory helps frame this study and understand the nuances around teachers' experiences working with students with ADHD. The main concepts of this study are teachers' knowledge, attitudes of teachers, and their experiences in working with students with ADHD.

To find appropriate research studies, it was necessary to identify the main keywords to search for in various databases. Therefore, a different number of search words or terms were applied. For instance, 'ADHD in Kazakhstan,' 'ADHD in Central Asia,' 'educating students with ADHD in Central Asia,' 'educating students with learning disabilities in Central Asia'. The following databases were used: Google Scholar, Education Resource Information Centre (ERIC), ScienceDirect, EBSCO, and the Nazarbayev University library repository. Additionally, to get a more extensive scope of results on the topic, the information was searched in three languages: English, Russian, and Kazakh. The search showed that there are more sources in English. Furthermore, to identify the most relevant studies, different filters were applied. For example, one of the leading search criteria was the year of publication, as it is essential to have updated information on findings about ADHD. In addition, it was necessary to look for different kinds of literature, particularly peer-reviewed articles, books, and theses. Moreover, to find extra information on the topic, a manual search of article reference lists was used. Thus, the results from the analyzed literature showed that there is a need for more studies in this area, not only in Kazakhstan but also in Central Asia. A thematic analysis was applied during the literature review so that the literature

was divided and grouped into themes that fit the exploration of the teachers' experiences in teaching students with ADHD. Thus, the searched themes were teachers' understanding, attitudes, and experience teaching students with ADHD, discussed in the following sections.

## **2.2 Teachers' Understanding of ADHD**

Various types of impairments and students' needs are often studied and explored. However, one of the widespread psychiatric disorders in the United States that affects 6-9% of children globally is ADHD (Adler et al., 2015). A developmental, neurobiological condition known as ADHD is characterized by severe and widespread symptoms of impulsivity, hyperactivity, and inattention (Daley & Birchwood, 2010). According to the research by Berri and Al-Hroub (2016), there are about 2.5 boys for every girl with ADHD and about six boys for every girl with ADHD referred to clinics in the USA. Interestingly, the higher prevalence of boys over girls in clinical samples likely reflects an ascertainment bias. This bias arises because boys' symptoms of impulsivity and hyperactivity are more likely to be observed by teachers, whereas girls' signs of ADHD are less likely to be reported since they exhibit fewer problems in the classroom (Berri & Al-Hroub, 2016). Furthermore, the results of the study by Bussing et al. (2012) are in line with those of earlier studies showing that children with ADHD do poorly in school than those who are not affected, as seen by their lower levels of academic success, lower high school GPAs, and greater retention rates.

The results of these studies underline the critical role that teachers play in identifying, referring, and managing children and adolescents with ADHD (Moldavsky et al., 2014). More specifically, primary school teachers play a significant role in identifying disruptive behavior of students and assessing students' academic and behavioral issues as teachers regularly interact with students across a variety of controlled and uncontrolled settings (Shehata et al., 2016). As a result, teachers can provide crucial information on ADHD history and symptoms, as well as help with children's therapies, because they engage with their students on a regular basis (Al-Omari et al.,

2015). In addition, teachers have an essential role in reducing diagnostic delay because poor teacher awareness of symptoms suggestive of ADHD acts as a barrier to identifying and referring these children (Moldavsky et al., 2014). Consequently, early recognition of ADHD is crucial so that teachers can adapt curricula or educational programs to meet the needs of children with ADHD to avoid unfavorable consequences in the future because there is evidence of a link between preschool behavioral difficulties and later adjustment issues in school-age children supported by reports from parents and therapists (Kieling & Rohde, 2010).

Thus, studying teachers' knowledge and attitudes in interacting with students with ADHD has received a significant focus in the last decade (Youssef et al., 2015). The competency of teachers to properly instruct students with ADHD can be significantly impacted by their understanding of the disorder (Menikdiwela & Vojtova, 2017). Research shows that although many primary school educators may have a rudimentary awareness of ADHD, they frequently lack the information and abilities required to recognize and assist pupils with ADHD in the learning environment (Latouche & Gascoigne, 2019). To effectively assist students with ADHD in primary schools, it is necessary to examine the existing level of teachers' knowledge of ADHD and identify potential areas for development because it is predominantly teachers who can notice the first characteristics of ADHD. Therefore, it is essential to look into teachers' understanding of ADHD because teachers' expertise and knowledge will influence how they interact with and manage ADHD students (Safaan et al., 2017).

Accordingly, to study teachers' knowledge of ADHD, it is also essential to look at the experience of Kazakhstan and other countries to analyze studies on the topic. The research in Kazakhstan explored teachers' knowledge and attitudes towards ADHD in Nur-Sultan (Akatayeva, 2020). The study's findings demonstrated that mainstream school teachers in Nur-Sultan had little understanding of ADHD, with an average score of 42.3% on the knowledge scale (SASK). Some research conducted in Canada examined school teachers' knowledge and attitudes toward students

with ADHD (Blotnicky-Gallant et al., 2015). In this study, teachers knew more about ADHD symptoms and diagnostic criteria, less about treatment, and comparatively little about general ADHD facts, including the causes and consequences of ADHD (Blotnicky-Gallant et al., 2015). The results of this research concur with the findings of the research in Saudi Arabia, reporting that primary school teachers were more informed about ADHD symptoms and diagnosis than treatment (Al-Moghamsi & Aljohani, 2018). The results of Canadian and Saudi Arabian studies align with Akatayeva's (2020) study claiming that the most accurate information regarding ADHD that mainstream school teachers had concerned symptoms (55.6%) and prevalence (53%), whereas the least accurate information concerned treatment (28.6%) and aetiology (24.4%). This is because teachers, who typically see children in demanding school contexts and provide critical diagnostic information to parents, psychologists, and physicians during ADHD examinations, are likely to be the most aware of ADHD symptoms and diagnosis, particularly if their preparation programs focused on these aspects (Blotnicky-Gallant et al., 2015). Therefore, it can be seen that teachers in Canada, Saudi Arabia, and Kazakhstan knew some aspects of ADHD and lacked some information, which might influence their interaction and teaching of students with ADHD.

Another research in Egypt investigated the ADHD knowledge of primary school teachers (Safaan et al., 2017). The study revealed that teachers with limited knowledge of ADHD and inexperience working with ADHD, children may be more vulnerable to stress and burnout, particularly in insufficiently funded and overworked schools (Safaan et al., 2017).

To determine teachers' training needs, it is necessary first to gain a thorough overview of their knowledge, including aspects of the disorder that are often misunderstood (Shroff et al., 2017). Another study in Nepal indicated that three-quarters of teachers (75.8%) had insufficient understanding of ADHD, while only 24.2% had adequate knowledge. This disparity could be explained by the fact that the majority of teachers received neither in-service education nor training, making it harder to recognize such behavioral issues (Bhattarai & Sharma, 2019). Here, it can be

seen that the absence of training has a direct impact on the comprehension of the issue by teachers; thus, this study's finding was in line with a study conducted in African countries. A research study by Lasisi et al., (2017) in Nigeria demonstrated a lack of knowledge of ADHD and negative attitudes of Nigerian teachers toward children with ADHD, showing the necessity for ADHD training programs for primary school teachers. Thus, the ADHD training program in Nigeria displayed a statistically significant increase in comprehension of ADHD and its behavioral management among teachers in primary school, as well as a more favorable attitude toward affected children compared to the control group (Lasisi et al., 2017). Similarly, in a South African study (Perold et al., 2010), teachers reported having little or no formal training in ADHD and its management in the classroom, restricting their knowledge of the disorder to what is depicted in media sources, which is often erroneous and not based on scientific research. Thus, the study by Sokal and Sharma (2013) in Canada claims that all teachers' top concerns, such as inadequate preparation for teaching in inclusive classrooms, excessive workloads, and a lack of resources, can be resolved by professional development through in-service training.

These studies demonstrate the lack of knowledge and understanding among teachers across various countries, the effects of this lack of understanding on how they relate to students with ADHD, and the importance of training for teachers. Teachers' understanding of ADHD can influence how they deal with students exhibiting inattentiveness and hyperactivity in their classrooms (Shroff et al., 2017).

To sum up, the above studies demonstrate that across the globe, adequate training in ADHD is lacking in the educational sector in various parts of the world. Teachers who received some form of training in dealing with students with ADHD feel confident (Strelow et al., 2020) and are able to manage the classroom compared to other untrained teachers. Thus, a positive correlation exists between teachers' knowledge of ADHD and their ability to include students with ADHD in the educational environment; therefore, it is clear that proper teacher training is critical to support

students with ADHD. For this reason, a study focusing on teachers in the Kazakhstani context is important.

### **2.3 Teachers' Attitudes toward ADHD**

While teaching students with ADHD might be difficult, teachers' attitudes regarding this condition can significantly influence how well they can support students with ADHD. Anderson et al. (2012) define attitude as judging individuals, occasions, things, or problems as good or unfavorable. Several international studies have focused on teachers' attitudes toward students with ADHD. A study in Australia confirmed that instructors' attitudes and behaviors toward children with ADHD are influenced by their knowledge of ADHD (Ohan et al., 2008). Additionally, research in East Africa discovered that 84.1% of instructors had a positive attitude toward ADHD and that positive attitudes were more likely to be reported when teachers had prior experience working with children with ADHD (Dessie et al., 2021). It can thus be concluded that experience and previous knowledge may be the most prevalent source of understanding the problem to some degree, as knowledge is often gained from either experience or education (Dessie et al., 2021).

The study by Amha and Azale (2022) reports that in East Africa, teacher training on ADHD was favorably related to teachers' attitudes toward students with ADHD. One of the potential explanations could be that training programs give teachers a chance to reflect on their feelings, help them develop critical understanding and realistic expectations, and enable them to modify their teaching methods to accommodate students with ADHD, which might change their negative perspective (Amha & Azale, 2022). Some scholars suggest that teacher training programs should contain practical teaching techniques because, otherwise, teachers will have pessimistic attitudes toward students with special needs (Lee et al., 2015).

In an Australian study, Bekle (2004) found that teachers' general attitudes toward ADHD favorably correlated with their understanding of ADHD. However, this differs from the findings from Ohan et al. (2008) study in Australia, which discovered that instructors with high and average

ADHD expertise showed less confidence in handling a child with ADHD in their classroom than teachers with low ADHD knowledge may have been the study's most unexpected conclusion. In another Australian study, Mulholland et al. (2023) reported that the research results in Australia demonstrated that teachers had generally positive attitudes toward students who exhibit ADHD-like behaviors. However, they also found it challenging to teach students who exhibit these behaviors because they frequently lacked the necessary knowledge of classroom management techniques (Mulholland et al., 2023). In a study done in Finland, the type of the student's disability has been determined to influence teachers' attitudes toward inclusive education, therefore teachers are more likely to welcome students with mild impairments into their classes than those with significant intellectual disabilities or disruptive behavior issues (Saloviita, 2020).

The findings of Blotnicky-Gallant et al. (2015) demonstrated that some teachers have both positive and negative attitudes toward students with ADHD. Thus, teachers with positive attitudes may be more inclined to treat these pupils with kindness and patience and may also be more inclined to try to help them rather than punish them for ostensibly inappropriate behavior. The positive attitude of teachers is contrary to teachers who hold negative views; they did not think that students with ADHD were 'easy to teach,' and many thought that having such a student in the classroom would interfere with their instruction and take away from their time with other students (Blotnicky-Gallant et al., 2015, p. 15).

This analysis of international literature demonstrates that teachers have different attitudes towards students with ADHD, and factors like teachers' training, knowledge and prior experiences might influence their beliefs and attitudes towards these students. The following section discusses the experiences that teachers have with students with ADHD.

## 2.4 Teachers' Experiences with ADHD Students

School teachers may have difficulties when teaching students with ADHD, such as how to control their disruptive conduct or how to modify the curriculum to match their needs. The following studies investigated how school teachers deal with educating children who have ADHD.

In Korea, Hong (2008) explored early childhood teachers' thoughts regarding child development by focusing on their perspectives of children with ADHD. The researcher discovered that teachers' replies were tinged with shame as they expressed their worries about being unable to fulfill their responsibilities as educators when asked about the challenges they faced when educating children with ADHD. Additionally, the scholar discovered that Korean teachers feel challenged when working with a child with ADHD since known behavior modification tactics are ineffective at managing behavior when the child continues to disobey teacher instructions.

Moore (2017) investigated UK educators' experiences with ADHD in the educational setting. He found out that participants in the UK indicated a wide range of tactics they had used successfully with ADHD children when asked about their experience controlling ADHD behaviors in the classroom during interviews and focus groups. The tactics utilized by teachers concentrated on supporting good classroom behavior, enhancing study abilities, and assisting students with ADHD in interaction with their peers. Thus, inclusive tactics that educators employ when working with students who have ADHD are applied to a variety of students, not only those who have ADHD, which frequently results in an approach that is customized for the individual (Moore, 2017).

As can be seen, the experience of Korean and UK teachers differs significantly; teachers from the UK successfully practiced a variety of strategies with students with ADHD, whereas Korean educators felt stressed when working with students with ADHD. Hong (2008) explains that due to a lack of awareness about the behavioral features of children with ADHD, teachers in Korea counsel or discipline a child in the same way they guide usually developing children and are then frustrated by ineffectual results. This study demonstrates that teachers' lack of awareness of the

behavioral signs of students with ADHD can influence the emotional state of teachers and, eventually, the educational process in the classroom. Teachers tend to deal with all forms of stress in the classroom, and that stress is likely to increase when they deal with challenging behaviors related to varying degrees of ADHD symptoms (Monteiro et al., 2022).

According to Lawrence et al. (2017), multiple factors such as age, gender, and cultural background impact how teachers and children with ADHD interact. For instance, a teacher, an African American woman, highlighted ethnicity as a perceived factor in differences in diagnosis rates, whereas other teachers talked about differences in perception of ADHD based on culture and gender (Lawrence et al., 2017).

Other factors, such as teachers' surroundings, influence teachers' practices; therefore, examining how these factors affect teachers' experiences in teaching students with ADHD and inclusive education is essential. Teachers' surroundings include colleagues, teachers' assistants, psychologists, school administration, and parents. Thus, a study in Croatia examining various aspects of cooperation in inclusive teaching methods highlighted the importance of collaboration between all stakeholders in educational settings. The study reported that collaboration, sharing of experiences, school partnerships, and cultivating empathy amongst all educational stakeholders are crucial in promoting inclusive education (Bouillet, 2013). Looking at the effect of teachers' colleagues on teachers' experiences, the study by Bhroin and King (2019) in Ireland investigated how professional development related to the individual education plan process affects teachers' perceptions and behaviors. The study discovered that effective implementation of new, student-centered, and collaborative learning techniques is facilitated by teacher collaboration. This means that new and student-focused approaches might be developed when teachers have received adequate training and collaboration, supporting the significance of teachers' cooperation. Another earlier research in Lithuania investigated the collaboration between teachers and special educators in an inclusive learning environment. The research demonstrated that getting support from colleagues and

implementing it in one's own practical tasks is crucial since it is through collaborative work the knowledge is shared, information is spread, and skills that are lacking are developed (Miltenienė & Venclovaitė, 2012). Consequently, the above studies prove the importance of working with colleagues and teacher collaboration in educational settings, showing the positive outcomes, particularly in professional development where both teachers and students with ADHD and other behavioral issues can benefit from the process.

Teachers' assistants and psychologists are also an integral part of a school community that impacts teachers' practices in teaching students with ADHD and inclusive education. Thus, a study in the UK by Chambers (2015) on inclusive education explored how teachers can successfully implement inclusive teaching practices in the classroom by working together with teaching assistants and other support staff. The research found that teachers considered hiring teaching assistants to be one of the most important forms of support needed in a regular classroom to ensure that the integration of students with disabilities was as successful as possible for all parties. Additionally, the study outlines the procedures for guaranteeing cooperation between assistants and teachers. These components include the school's recognition of the assistants' efforts, their capacity to work together, the opportunity to participate in regular meetings, their involvement in the planning and review process, and the provision of excellent professional development (Chambers, 2015). This shows that teachers' assistants support teachers implementing inclusive education, and to ensure full collaboration between teachers and teachers' assistants, school administration needs to include assistants in the educational process.

Forlin (2010) investigated the role of school psychologists in inclusive education in Hong Kong and found that in the context of a whole-school approach to inclusive education, several effective strategies for enhancing the quality of learning outcomes for every student have surfaced in recent years incorporating the school psychologist. Examples of strategies that can be relatively easily implemented in a school-based support model include the school psychologist's support of

creating and implementing inclusion policies, their collaboration with teachers, their willingness to student input, and their work with parents. Similarly, the study by Chambers (2015) found that psychologists conduct student assessments, interact with teachers about the demands of students who need help, and create suitable learning opportunities for children. This demonstrates that teachers' collaboration with psychologists can lead to better support for the needs of all students and the implementation of inclusive education.

The school administration and how the school principals manage the educational process also influence teachers' experiences in teaching students with ADHD and inclusive education generally at schools. Thus, according to the study in the USA by Sun and Xin (2019) that investigated school principals' opinions about special education services found that the roles and responsibilities of school principals may shift when an increasing number of students with disabilities are integrated into general education classrooms. Another study by Lambrecht et al. (2020) in Germany examined the effect of school leadership on implementing inclusive education and discovered that school leaders must enhance their staff's enthusiasm, abilities, and working circumstances to promote the finest education possible for all students, especially underprivileged ones. Research revealed that inclusive school development required collaboration not just between educators and pedagogic staff but also in terms of decision-making processes. These research studies prove the importance of school leaders in correctly managing the learning process so that inclusive education can flourish at schools.

Another important factor impacting teachers' school practices in teaching students with ADHD and inclusive education is the interaction between parents and teachers. A study by Afolabi et al. (2013) on inclusive education analyzed the literature on family involvement's importance and value in implementing inclusive education. It presented that parent participation improves teacher morale, fosters a supportive school environment for inclusive practices, and strengthens the teacher-parent relationship. In addition, the researchers recommended that schools should prioritize

developing positive relationships with all parties involved, including cooperation with teachers, families, and other community members, because the research indicated that children perform significantly better academically and spend more time studying when there is a strong collaboration and partnership between schools and families (Afolabi et al., 2013). The above study emphasized that parents' involvement plays a significant role in their children's lives, especially within inclusive education therefore, schools should collaborate with the parents to achieve not only good academic outcomes but also to establish a strong teacher-parent relationship.

It seems that across the world, teachers have different experiences in working with children with ADHD. Korean adults, including both parents and teachers, do not recognize ADHD as a disorder; thus, only a tiny fraction of children with ADHD obtain therapy through individual meetings with clinicians (Hong, 2008). Moreover, all key stakeholders influence how teachers perceive and manage teaching students with ADHD and other behavioral concerns. Thus, dealing with students with ADHD requires considerable effort and patience on the part of the teacher, and it is therefore important to understand teachers' experiences teaching students with ADHD in Kazakhstan.

This chapter reviewed key scholarly literature on this topic, discussing three main concepts: knowledge, attitudes, and experiences of teachers with students with ADHD. The analysis of existing international literature demonstrated that the experience of teachers with students with ADHD does not fully reflect the whole issue; therefore, exploring Kazakhstani teachers' experience in the suburban area of Aktobe will help to fill the gap and discover the factors that influence their experience in teaching students with ADHD. This analysis of concepts is followed by a description of the theoretical framework applied in this study.

## **2.5 Theoretical Framework**

Bronfenbrenner's Ecological Systems theory (1979) is used in this study to conceptualise and understand teachers' experience dealing with students with ADHD. According to this theory, in

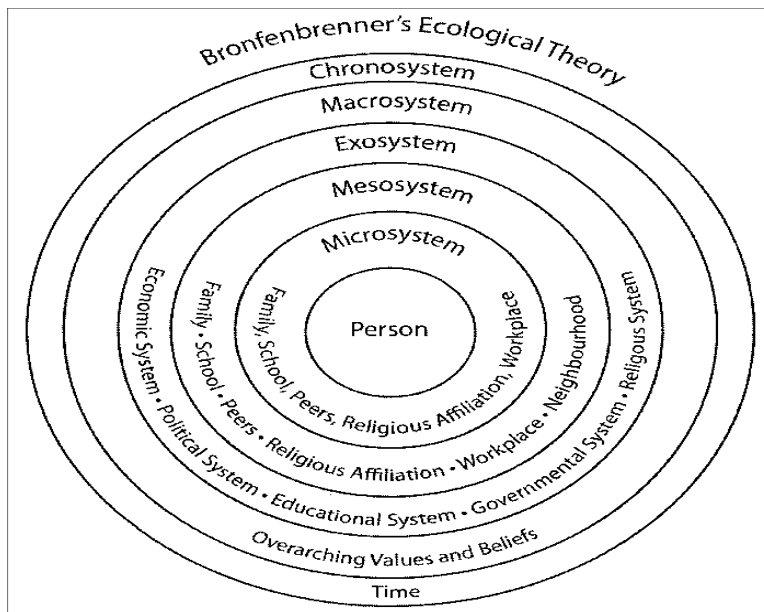
order to understand human development, it is important to investigate multi-person systems of interaction that are not restricted to a single setting and must consider environmental factors outside of the subject's immediate context (Bronfenbrenner, 1979). The ecological environment is a nested collection of concentric structures, one inside the other, described as 'micro-, meso-, exo- , and macrosystems' (Bronfenbrenner, 1979, p. 22).

A microsystem is where individuals can easily interact face to face, such as in a home, daycare facility, playground, and other places (Bronfenbrenner, 1979). The next level is a mesosystem, which considers relationships between two or more settings (Hayes et al., 2017). The next level is the exosystem, which Bronfenbrenner (1979) defines as one or more settings in which events that impact contain the developing person but do not engage the developing person as an active participant. The last level is the macrosystem; research by Neal and Neal (2013) reports that macrosystems, in which exosystems are nested, include significant cultural influences or beliefs that have long-term effects on the centered individual. However, later, a final chronosystem was proposed. This is a system that reflects change or continuity over time and influences the other systems (Neal & Neal, 2013).

Since this study focuses on teachers' knowledge, attitudes, and experience, it is necessary to study the impact of environmental factors on teachers as shown in Figure 1. Therefore, teachers' microsystem includes the closest interactions: family members, colleagues, and students. Microsystem directly impacts the teacher's beliefs, perspectives, and knowledge; for example, within the school context, Kazakh initial teacher education system and personal characters.

**Figure 1**

*Ecological Model to Understanding Teachers' Experiences Teaching Students with ADHD*



Since a mesosystem involves interaction between two settings, an example might be an interaction between a colleague and a student regarding academic performance or behavior at school. Since exosystem does not involve active participation of the individual with the settings, teachers' exosystem might be school policies. The types of schools in various countries differ; some schools have a hierarchically structured policy-making capacity, where the school administration's attitudes can considerably impact policy (Slegers, 1991, as cited in Jongmans et al., 1998). In that case, teachers do not take part in creating school policies, such as those related to inclusive education, and merely follow its instructions. Consequently, school regulations influence teachers' perceptions of inclusive education.

Another system that culturally affects teachers' knowledge and beliefs is the macrosystem. Vélez-Agosto et al. (2017) suggest that culture is not a distinct system acting at the macro level but is embedded in daily action (activities, routines, practices) and part of communities of practice via a language-mediated meaning-making system. Therefore, studying inclusive education and attitudes towards ADHD at a cultural level is essential. A widespread cultural stigma leads to the prevalent

tacit mandate to segregate persons with intellectual disabilities in sizeable residential care institutions (Gevorgianiene & Sumskiene, 2017). This labeling process excludes people with disabilities from all aspects of social life (Brisenden, 2007). Analyzing the country's cultural background helps to understand people's attitudes towards inclusive education. To view the whole picture, it is significant to explore the country's historical background. Thus, in Kazakhstani schools, understanding of the concept of inclusive education appears to be heavily influenced by past educational practices in the former USSR, where it was believed that children with disabilities would be better educated in separate and specialized pedagogical settings referred to as 'correctional' (Makoelle, 2020b, p. 2). In addition, Kazakhstan's special education system arose from the Soviet medical paradigm, with the Psychological Medical and Pedagogical Commission (PMPC) serving as the beginning point for diagnosing kids for placement in schools (Makoelle, 2020b). Consequently, looking at the historical and cultural background of the country will help us to comprehend the issue.

Thus, by using Bronfenbrenner's Ecological Systems theory, starting from the closest layers of individuals' interaction to the country's historical experience, it can be seen how the teachers' perceptions and knowledge were gradually formed.

## **2.6 Conclusion**

This chapter analyzed literature across the globe regarding three main concepts of the study: teachers' knowledge, attitude, and experience with students with ADHD. It demonstrated factors that influence the understanding, perceptions, and experience of teachers who deal with students with ADHD. Moreover, to comprehend the issue of exploring the experience of teachers with students with ADHD, the theoretical framework was presented.

Due to the limited number of studies undertaken in the Kazakhstani context, specifically studying ADHD, the issue of teachers' knowledge, attitudes, and experience with the disorder needs more attention and further investigation. The next chapter is focused on the methodology of the

study with details regarding methodological procedures, particularly research design, research site, data collection, data analysis, and ethical considerations.

## **Chapter 3. Methodology**

### **3.1 Introduction**

This chapter focuses on the study's methodological components. The chapter consists of five sections. The first section is devoted to an overview of the research design, the second section covers the research site, and the third section presents data collection. The fourth section explains the process of data analysis. Each section discusses why a specific tool or methodology was chosen for the current study. Eventually, the chapter concludes with ethical considerations that describe the main ethical issues that were considered.

### **3.2 Research Design**

This study aimed to explore teachers' experiences teaching students with ADHD in primary schools in a suburban area of Aktobe. A qualitative research design was adopted for this study based on the study's goal and research questions. According to Creswell and Poth (2018), the need to explore a problem or a comprehensive understanding of the issue is best fulfilled by qualitative research. Since the study examined teachers' experiences, qualitative research design was the most appropriate, as researchers are interested in learning how people construct their worlds, interpret their experiences, and give those experiences meaning (Merriam & Tisdell, 2016). Moreover, for numerous qualitative researchers, immersing in the culture or organization being studied and experiencing what it is like to be a part of it is the most significant approach to comprehending what is happening (Krauss, 2005). Consequently, for a better understanding of the issue, it was imperative to dive deeper into the problem and explore the experience of teachers by studying their culture and organization. In addition, qualitative methodology was appropriate for the current study because, as Leavy (2017) reports, researchers can gain an in-depth understanding of a subject by using qualitative research methods to explore the meanings individuals attribute to their actions, circumstances, situations, people, and objects.

Scholars define basic qualitative study in different ways, such as an ‘interpretive description’, a ‘noncategorical’ research approach (Thorne et al., 1997, p. 169), a ‘basic or fundamental qualitative description’ (Sandelowski, 2000, p. 335), that ‘is not guided by an explicit or established set of philosophic assumptions in the form of one of the known qualitative methodologies’ (Caelli et al., 2003, p. 2). Thus, the issue of teachers' experience in dealing with students with ADHD in a suburban area of Aktobe was explored using a basic qualitative study.

Qualitative research enabled a more in-depth comprehension of various challenges teachers encounter and the methods they employ to assist children with ADHD. Researchers can learn more about the experiences and feelings of teachers by applying qualitative research methods. Moreover, gathered knowledge can assist teachers in providing better support for students with ADHD and enhancing their academic performance.

### **3.3 Research Site**

The study was conducted at three mainstream schools in the suburban area of Aktobe. The first two schools had a Kazak-Russian medium of instruction school, with 551 students and 481 students, respectively. The third had Kazakh as the language of instruction, with 382 students. These research sites were chosen for a variety of reasons. At first, the suburban area of Aktobe was selected pragmatically in terms of logistics and the place of the researcher’s living. The primary reason was that there is a lack of studies in suburban and rural areas of Kazakhstan, as is evident in the research gap, particularly in relation to teaching students with ADHD. Another factor for selecting the two schools with different languages of instruction was to get a broader spectrum of results.

As a result, this study gave perspectives on teachers' experiences working in three primary suburban schools of Aktobe. The names of the schools are anonymized for ethical reasons.

Taking into consideration Magnusson and Marecek’s (2015) viewpoint that the ideal or fixed number of participants for interpretative studies is not predetermined, the optimal number of

participants for this study was 10; four participants were interviewed at school A, five participants at school B, and one participant was interviewed at school C.

### **3.4 Data Collection Instruments**

In this qualitative study, the data was collected using semi-structured interviews. Generally, there are different styles of interviews that range from highly organized, questionnaire-driven interviews to unstructured, semi-structured conversational formats, and their choice depends on how much structure is essential in the interview (Merriam & Tisdell, 2016). The current study used semi-structured interviews as the data collection instrument because, from all types of interviews, this type best corresponded with the aim and research questions of the study. Furthermore, a semi-structured interview was selected for a variety of reasons. Firstly, the main characteristics of semi-structured interview are the interviewer's limited direction or control and the interviewee's freedom to share his personal views in any way they want or feel capable (Cohen et al., 2007). Secondly, the flexible nature of the interview is ideal, as in this kind of interview, where all the questions can be phrased with greater flexibility but can also be more and less structured. Lastly, with this type of interview, the researcher is able to adapt to the current circumstance, the respondent's developing perspective, and fresh insights into the subject (Merriam & Tisdell, 2016).

Individual interviews were conducted with primary school teachers as one-on-one interviews gives the interviewer the chance to delve into the relevant issues in greater depth (DiCicco-Bloom & Crabtree, 2006). Additionally, open-ended questions were used in interviewing primary school teachers because open-ended questions have a number of benefits, including flexibility, the ability to probe for more information if desired or to clarify any misunderstandings and the ability to foster cooperation and rapport (Cohen et al., 2007). The time taken for the interviewing of participants was about from 40 minutes to one hour, and as DiCicco-Bloom and Crabtree (2006) reported interviews are often conducted just once for a person or group and can last upwards of 30 minutes.

### 3.5 Data Analysis Procedures

This section will explain the data analysis procedures. According to Creswell and Poth (2018) data analysis entails arranging the data, skimming the database, classifying and grouping topics, presenting the data, and developing an interpretation of them.

Data analysis involved several stages, and the first stage was the transcription of data into a usable format in order to find meaningful answers to the research questions (Castleberry & Nolen, 2018). Thus, in the current study, data transcription was ongoing because collecting and analyzing data is a continuous process that never ends (Merriam & Tisdell, 2016). Moreover, ongoing transcription has more advantages over one-time transcription for several reasons. To begin with, it helps the researcher manage time because the collected data can be transcribed in stages which greatly simplifies the process. Then, ongoing transcription can help to find gaps in the data as they are being collected so that these can be addressed in further interviews—a flexibility that is offered in the semi-structured type of interviews. Another reason is to avoid data redundancy whereby interview questions could be modified to get a new set of information.

The next stage in data analysis was coding. Saldana (2016) defines code as a word or brief phrase that symbolically gives a summative, prominent, essence-capturing, and/or evocative feature to a segment of language-based or visual data. As Hoover and Koerber (2011) state, the efficient management of massive data sets is one of the fundamentals of valid qualitative analysis. Even though the study by Hoover and Koerber (2011) claims that using software such as NVivo to code and retrieve data is far more effective than manual processes using paper and highlighters, in the present study, the data was coded manually for two reasons. The main reason was a limited amount of time because learning how to manage the Nvivo software would take more time therefore, it was preferable to code the data manually.

In the last step, the data was presented in text and tabular (Creswell & Poth, 2018) in the Findings chapter.

### 3.6 Ethical Considerations

This section describes the ethical issues that were considered in this proposed study. The following steps were taken to adhere to procedural ethics. The first step in the research process was to request approval from the NUGSE Research Committee, after which the process of collecting data began; where participants got acquainted with the study by reading the information sheet with information about the study, including its aim, significance, potential benefits, and threats.

The next step was for interested participants to confirm their participation by signing an informed consent form, proving their voluntary participation and agreement for digital recording. Interviews have an ethical component as they involve interpersonal interaction and generate information about the human experience (Cohen et al., 2007).

Thus, the other step was ensuring privacy and confidentiality by conducting each interview individually in a separate room at school. All personal identifiers, including real names, were omitted from the records to ensure anonymity. Furthermore, the schools' names, history, and profile were omitted. The interview records were securely stored on a personal computer safeguarded by a complex password.

Another step was to identify and highlight any potential risks of the research. One of the potential risks was emotional discomfort due to the personal nature of the questions. Thus, during the interview, the participants were reminded that their participation is voluntary, and that they are free not to answer if they feel uncomfortable or the questions are sensitive. In addition, since I am not an expert in psychology and have no experience in managing stressful situations, I was prepared to refer distressed participants to a local psychological center. Furthermore, the interviews were conducted in a neutral place for safety reasons and to avoid any risks.

The last step was to consider the research's benefits. Although there are no direct benefits for the participants, this study is extremely helpful in improving education practices and contributing to the development of inclusive education in Kazakhstan by raising awareness of teaching

experiences with students with ADHD. Furthermore, as a token of appreciation for the participants' time, they were given a notebook.

### **3.7 Conclusion**

This chapter presented an extensive overview of the methodologies applied in this study along with a justification of the selected research design. Additionally, data collection tools and data analysis were represented. Furthermore, ethical considerations were discussed in detail, including anonymity and confidentiality procedures, risks of the research, and benefits of the research. The following chapter discusses the research findings.

## **Chapter 4. Findings**

### **4.1 Introduction**

This chapter presents the research findings. The aim of the study was to explore teachers' experiences when they are teaching and engaging with students with ADHD in primary schools in a suburban area of Aktobe. The findings are based on the analysis of 10 in-depth interviews conducted with teachers at three primary schools. Five themes were generated after analyzing the data using thematic analysis. In this chapter, I present findings based on these themes. The chapter consists of seven main sections, arranged as follows: participants' profiles, participants' understanding and perceptions of inclusive education, participants' understanding of ADHD, strategies used by participants in teaching and engaging students with ADHD, the role of teachers' training in their experiences teaching students with ADHD, the role of the school community in influencing teachers' perceptions regarding ADHD, and teachers' recommendations.

### **4.2 Participants' Profiles**

Ten teachers participated in the in-depth face-to-face interviews. All participants were women because only women work as primary school teachers at these schools in a suburban area of Aktobe. The number of teaching years' ranges from 8 to 38 years. Participants 1, 2, 3, and 4 were from school A, and Participants 5, 6, 7, 8, and 9 were from school B. Participant 10 was from school C.

**Table 1***Participants' Profiles*

<b>Pseudonym</b>	<b>Gender</b>	<b>Number of years teaching</b>	<b>School</b>
<i>Participant 1</i>	Woman	14 years	School A (Kazakh-Russian school)
<i>Participant 2</i>	Woman	28 years	School A (Kazakh-Russian school)
<i>Participant 3</i>	Woman	24 years	School A (Kazakh-Russian school)
<i>Participant 4</i>	Woman	30 years	School A (Kazakh-Russian school)
<i>Participant 5</i>	Woman	22 years	School B (Kazakh-Russian school)
<i>Participant 6</i>	Woman	19 years	School B (Kazakh-Russian school)
<i>Participant 7</i>	Woman	8 years	School B (Kazakh-Russian school)
<i>Participant 8</i>	Woman	38 years	School B (Kazakh-Russian school)
<i>Participant 9</i>	Woman	21 years	School B (Kazakh-Russian school)
<i>Participant 10</i>	Woman	22 years	School C (Kazakh school)

### 4.3 Participants' Understanding and Perceptions of Inclusive Education

To get a more detailed picture of participants' responses on their understanding of ADHD, it was essential to consider their understanding of inclusive education and their attitudes toward it.

Findings revealed that participants understand the term 'inclusive education' differently. Among this group, five teachers perceived inclusive education as education for students with special needs, health problems, and medical diagnoses in mainstream schools. For instance, *Participant 2* defines inclusive education as,

*I think that they are trying to introduce inclusive education into school life, into the schooling of children with some kind of abnormalities in health and mental development so that they enter into the life and communicate with other children.*

Additionally, **Participant 4** comprehends inclusive education along the same lines, “*In my own opinion, inclusive education is education for children who have medical diagnoses*”. **Participant 3** has also a limited understanding of inclusive education, “*From my own understanding, inclusive education is education for children with special needs who need some help, a certain approach in learning and society.*”

In contrast, **Participant 1** defines inclusive education differently,

*It seems to me that inclusive education is our whole environment since inclusion implies all children with their own characteristics and all children are different. When we talk about inclusive education, it is not necessarily children who have medical diagnoses. Inclusive education is our whole education because, for example, children of different levels and abilities are sitting in the classroom. For example, gifted children who are intellectually developed belong to inclusive education, and teachers adapt to their needs and work with them separately, that is, gifted children also belong to inclusion because they are special in intellectual development. Other children, for example, are developed in sports, this is also a kind of inclusion, that is, they have a peculiarity in sports. Another category is children who have physical disabilities; they have their own needs. Then, we adapt to teach children with physical disabilities in different ways. Furthermore, children who have intellectual disabilities that is, children with special educational needs. They also make up inclusive education.*

In addition to the mentioned perceptions, **Participant 8** noted that inclusive education also includes gifted students, “*teaching gifted children and with children with special educational needs*”.

#### 4.4 Attitudes Towards Inclusive Education

Data also reveals these teachers' attitudes toward inclusive education. Five participants have positive attitudes towards inclusive education. Below are a few examples that highlight this:

*I would be more in favor of the child with a disability studying in a mainstream school than in a special school. We should not deprive children with disabilities of the opportunities to get an education in mainstream schools. When I did my internship, I did not like it when children with disabilities studied in special correctional classes; our Kazakh society separates children with disabilities. (Participant 6)*

*Of course, I support inclusive education, and students with disabilities should study with everyone. I think it's better to study at school than homeschooling; the mood is better at school. (Participant 9)*

*I generally treat children with disabilities very kindly. I have an absolutely positive attitude towards them; we both hug and sit there together. (Participant 3)*

It is also important to mention the opinion of **Participant 5**, who claimed that the type of student's disability may affect her attitude toward inclusive education. To be more specific, **Participant 5** said that,

*I welcome students with mild impairments because these students are typical and they can reason, think, and talk, but in my experience, I have students with intellectual disabilities, and it is very challenging to work with these students because I don't know how to educate them.*

However, the other five participants demonstrated negative attitudes toward inclusive education. For example, **Participant 4** said that,

*It seems to me that children with disabilities should either be home-schooled or be placed in a special school because it's hard with them in mainstream schools. Because the student with mild mental retardation is sitting in the class, I can't pay as much attention to him as to everyone in the class and work with him and the others at the same time. Or, if it is a mainstream school, then it may be necessary to create a correctional class.*

One of the reasons why some participants have sentiments like **Participant 4** can be extrapolated from **Participant 2**'s narrative regarding a student with disruptive behavior,

*When a child with disruptive behavior disrupts my lesson, of course, it is negative. I try not to pay attention to the child during the lessons, but sometimes, I don't have enough patience to do it. Another child with disruptive behavior was ill and absent for two days. Other children were happy, and I did not express my joy; I was also glad that the child was absent, that there was silence in the lessons, that no one screamed, that no one said for half an hour, "Can I go out?" But at other times, when I chat with this child, he has such a difficult family situation; his mother is alone, and she drinks, and I feel sorry for him. But in the lesson, of course, with his behavior, all this is forgotten.*

It is worth mentioning that **Participant 5** reported that there are cases when teachers are the first to notice some signs of untypical behavior, "*For example, when some children come from kindergarten, they do not have a diagnosis. We are starting to identify diagnoses already at school when students begin to show untypical behavior*".

#### **4.5 Participants' Understanding of ADHD**

Participants also shared their understanding of ADHD. Most participants (seven) demonstrated a lack of knowledge of ADHD. Below are some excerpts showing this: **Participant 6** heard about the existence of Attention Deficit Hyperactivity Disorder but didn't know about the abbreviation ADHD, "*Of course, I have heard about this diagnosis, but somehow I did not associate*

*ADHD with such an abbreviation, but naturally, I have heard about the child's attention deficit about this syndrome."*

In a similar vein, **Participant 2** reported, "*Honestly, I don't know anything,*" but after transcribing the abbreviation ADHD, she started to think of possible characteristics, "*If I think logically, if there is an attention deficit, then he is trying to draw attention to himself, then he must have some kind of defiant behavior to be noticed. But I don't really know how.*"

When asked the same question, **Participant 3** said that she had never heard of ADHD, "*This is the first time I've ever heard this from you, so I haven't read this information anywhere yet*".

It is worth noting that **Participant 3** thinks that ADHD in children might be caused by using phones and other electronic devices,

*It seems to me that this is no longer a syndrome of some kind. Still, maybe the physiology of even the child himself, especially in our time, children are mostly with phones, with gadgets and, probably, this somehow affects them all. Therefore, many will probably become like this.*

Only three teachers at least demonstrated some knowledge of ADHD by describing some common symptoms of ADHD:

*There are two types of students with ADHD, the first type involves hyperactive students, and the second type involves students with poor concentration...These children cannot sit, they scream, they interfere with those around them. If they see an interesting thing, they will want to take it. They can't sit and start walking during the lesson, they don't have the patience to sit longer. (Participant 10)*

Similarly, **Participant 9** named symptoms of a student with ADHD in her practice,

*The student cannot work longer than 15-20 minutes; he doesn't want to do any tasks. He gets lazy if I give a lot of tasks; if I give little, he does it quickly. I need to look only at him; he constantly requires attention. When he finishes the task, he starts interfering with the others and looks around in class during the lesson. He is very hyperactive; it is impossible to sit him down...I sat with him in English and computer science because he could pull out the keys and put the electronic device in his mouth. He always tears up and steals books. He can go into the classroom, drop a flower, or throw the office keys into the toilet.*

Meanwhile, **Participant 8** describes students with ADHD as behaving in the following manner,

*They go to the blackboard, solve examples in math class, and don't just go back but jump like hares. They can't regulate, even though you tell them to. That's also the kind of behavior the student had. Hyperactive. It affected the way he wrote and the way he spoke. It's just that this hyperactivity somehow comes from within them.*

A noteworthy finding is that **Participant 10** and **Participant 8** mentioned that students' behavior with ADHD can change over time. Thus, **Participant 10** stated, "As students with ADHD get older, their behavior improves. In higher grades, children calm down a little" and **Participant 8** reported, "It is said that hyperactivity goes away by the fifth grade".

Most participants in this study have a limited understanding of inclusive education and ADHD. Only a few participants are aware of some symptoms of ADHD.

#### **4.6 Strategies Used for Teaching Students Who Might Have ADHD**

To answer the second research question, participants were asked about strategies they use to teach students with ADHD. Thus, participants related their ways of teaching students ADHD. To be more specific, a few participants (three) suggested giving additional tasks to students with ADHD who show hyperactive behavior,

*There are children who look around and interfere with others; they need to do only additional tasks. When the child with hyperactive behavior is busy, he continues to work. (Participant 10)*

*During the lessons, this child needs to be kept in attention all the time and loaded with work. If the child is loaded, he does not have time for other frolics. (Participant 8)*

**Participant 10** and **Participant 9** also described their strategies for teaching students with ADHD with attention difficulties and the strategies they employ when dealing with disruptive students,

*To begin with, to improve attentiveness, everyone is given the same tasks, then with a student with attention difficulties, you need to deal individually, explain in simple words. Prepare interesting tasks. .... An individual approach is manifested even when a child interferes with others, you call him to your desk so that he looks at others as a leader, how children work quietly, and then ask him to do the same. (Participant 10)*

*To do individual work with him only by cunning. You need to sit next to him and watch. You won't be able to do any other work with this child... "He likes to draw; he likes to make something out of plasticine. Basically, such work was given. (Participant 9)*

Another strategy used by participants is working in pairs and groups. **Participant 3** reported the advantages of working in pairs, "*Basically, when children work in pairs in the classroom, I try to put the children in so that they help each other and teach each other. I like working in pairs more*".

**Participant 10** described a case with a student with attention difficulties,

*In group work, a child with increased attentiveness will take all the tasks on himself, then I say that he is the captain and he must explain to everyone in the group. If a child with poor*

*attention is in group work, then he lags behind group work because the leaders take away the work, then I try to include him in the work.*

In addition, **Participant 10** shared that a student with ADHD should be involved in all group activities whenever possible, “*We try to send the student to Olympiads and competitions more often. Let him show himself. When students are rewarded, they rejoice*”.

#### **4.7 Teacher Training Related to Teaching Students with ADHD**

Understanding the situation fully requires considering the training teachers receive at pedagogical universities and at their workplaces as part of their professional development for teaching students with ADHD and in inclusive education practices. The findings revealed two distinct categories of participants: those who received some training and those who didn't.

Among all the participants taking part in the interviews, only one shared a narrative about her experience at pedagogical universities. **Participant 1** described her experience at studying at the university,

*At the pedagogical university, I studied the basics of defectology as part of the program. We studied different diagnoses, and based on this, we went to school D. School D is a correctional school, so we could look at the behavior of children with special needs and their education. After visiting school D, we were shocked because we don't see children with disabilities every day. We talked with the teachers who work at school D about how to help these children and how they can be taught something. The teachers of school D said that they get to know each other in a new way every time, and they learn the same numbers every time, the same letters for children as they did the first time. It even became a little scary to me that there are such children with special needs in our lives, they are now at school, and then how will they find themselves in this society?*

Among those who received professional development training, some had positive experiences, and others had negative experiences.

Six participants shared their negative experiences in obtaining training regarding inclusive education and ADHD. Thus, **Participant 2** attended courses offered by the school on inclusive education and shared her opinion,

*To be honest, the courses in the version that we are currently taking do not give anything. Basically, they give us a theory that does not provide us with anything; instead, we need practice. I am more engaged in self-education.*

In addition, **Participant 5** took a compulsory Cambridge level-based course offered by the school in 2013, aiming for professional development,

*In general, the Cambridge level-based course is composed of three levels: third (basic), second (fundamental), and first (advanced). I studied only a third level. I studied classroom learning guidance. The Cambridge course lasted for three months and included three phases: the first was theoretically based, the second was practically based at school, and the third involved a final examination. Also, in order to receive a salary supplement, it was necessary to successfully pass the exam.... they explained inclusive education to us. Well, I don't understand a lot because they presented us with a child without a leg; how to treat him well, that's okay; he's a normal child who reasons, thinks and talks. But what about a child who has a speech delay, mild mental retardation, and challenging behavior.*

In a similar vein, **Participant 3** expressed the inadequacy of the online course Orleu, which she voluntarily took in 2020, “*We take courses online; these are the ones Orleu provides, but we are always provided with some kind of theoretical information. We would always like to learn more from practice*”.

**Participant 3** shared her thoughts about support of inclusive education from the government,

*I see the republic supports inclusive education. However, so many years have passed, and we live in such a modern world, but here is the website 'special-edu.kz' we use for inclusive education is so outdated there. It's still 2017, as they created it. What was old all remained raw at that level, and now we are visiting this site with no new information, although it would be possible to create something new. There are textbooks and some workbooks on the site. We use them, but there is still little information for us. I would like to have collections of fresh didactic materials on the site, for example.*

Only two participants described their positive experiences and said that they received adequate. Thus, **Participant 8** mentioned that she also attended a Cambridge-level-based course offered by the school in 2015,

*The courses lasted for three months. I had the first level. The program course included modules such as leadership at school and between schools, new approaches in teaching and learning, teaching according to the age characteristics of the students, teaching talented and gifted students and students, etc. The module on talented and gifted children included the study of inclusive education. In general, all modules are interconnected. These courses changed my thinking and worldview. These courses have brought more benefits than the rest...The seminar gave us a lot in terms of documentation. Experienced teachers of practice spoke there and shared their experiences, which was a great experience for us. Then, we created a network community group and exchanged our best practices, which helped a lot in our work. Of course, the school sent us, and we are very happy about this.*

**Participant 1** also reported the significance of the course that she voluntarily took in 2021 offered by a school that covered modern technologies of education for children with special educational needs,

*In the courses, we were told what methods and approaches should be used in inclusive education. More in terms of preparing for lessons, how to design it, how to write it all down, how to present it, and when to work with these children. There was some help in this regard.*

Meanwhile, **Participant 8** also emphasized the importance of self-education,

*I have read a lot of literature, especially in working with hyperactive children, with children who show aggression. I have read a lot of things precisely for the purpose of self-education. Because sometimes you face it and you don't know how to work, you have to resort to theory, and then apply it in practice, whether it works or not. It is not so much theory as practice that is probably decisive in this matter. No matter how much you study theory, practically children are not the same, each with their own characteristics.*

**Participant 3** mentioned that she uses social media as a source of information and self-education, *“I'm always trying to find new and interesting information. I watch educational videos on social networks such as Instagram and TikTok, and I subscribe to our Republican teachers on social networks”*.

Two participants didn't attend any training sessions or courses. Thus, **Participant 6** stated that she devotes time to self-education, *“I didn't attend any inclusive education courses. I don't have a certificate related to inclusive education yet. But I read a lot and do self-education”*. In addition, **Participant 6** reported that she didn't receive training at a pedagogical university.

**Participant 4** mentioned that she didn't take any courses on inclusion education because the courses were fee-payable. Also, **Participant 4** said that she didn't take a lot from her pedagogical university, *“I had distant learning at the university, and we only studied special pedagogy. We went through only the main title and did not delve into the essence of special pedagogy”*.

This theme demonstrates that some participants showed their dissatisfaction with the training that their schools provided them. Only two participants highlighted the positive sides of the training that they attended.

#### **4.8 The School Community in Influencing Teachers' Perceptions Regarding ADHD**

Since the research uses Bronfenbrenner's Ecological Systems theory, it is essential to look at the school community's role in influencing teachers' perceptions regarding ADHD and their experiences teaching students with ADHD. Consequently, to have a deeper comprehension of the topic, it is crucial to study the influence of environmental factors on teachers. The school community is composed of several layers: teachers' colleagues, assistants, psychologists, school administration, and parents. The school community plays a vital role in the teachers' work and life; therefore, it was essential to interview participants about the role of the school society.

##### **4.8.1 Participants' Perceptions and Experience Working with Colleagues**

Participants of the study reported about their perceptions and experiences working with colleagues at school. Some participants (four) mentioned the importance of mutual support and help at work. *Participant 3* highlighted the significance of the systematic work with the aim of finding relevant information to teach students with special needs,

*We are working together with a colleague, trying to find something new, something interesting somewhere. It seems that progress is still visible when we work in the system. Somewhere in terms of behavior, somewhere in educational activities, of course, it is visible.*

Similarly, *Participant 1* emphasized the role of colleagues in collaborative work, “*My colleagues and I, who have children with disabilities, share our experience with each other that we have figured out how to do something. It helps, too*”.

Two participants reported challenges working with colleagues. **Participant 9** said about her colleagues, “*How will they help; they didn't do anything. Because they don't know much. Basically, I was called into other lessons by teachers from other subjects. I sat with a student with disabilities because teachers can't work with him*”.

**Participant 7** stated,

*Colleagues do not play a strong role in our work; we do not have collaborations and some kind of support from each other. Everyone works for himself; there is no such support. Well, sometimes it happens at our meeting when we go to the meeting, everyone talks about their child, everyone literally fights as best they can, studies.*

#### 4.8.2 Participants' Perceptions and Experience Working with Assistants

Participants were also asked about their perceptions and experience working with assistants. Three participants supported the idea of having an assistant in the class, four were against it, and three shared information about the lack of assistants at the school. **Participant 3** emphasized the importance of assistance in the class,

*This is a great help, of course. When the assistant came, it was much easier for me in the class. In the sense that she helps the student, she explains the tasks that I give; if the student makes a lot of noise, they come out, and she distracts him a little. Then he calms down; they come back in, work, so it's easier here, of course, that at least I'm not distracted by it anymore.*

**Participant 9** wasn't aware of the existence of an assistant and an opportunity to work together with the assistant,

*I didn't ask the assistant. Is there such a thing? In our school, such a thing as an assistant is not even considered. We only have a psychologist. In many cases, when a student does not*

*obey at all, I just take him to a psychologist, and that's it. Because I need to explain the lesson, I still need to work with the other 23 students.*

However, the other four participants had the opposite opinion. Findings demonstrated that **Participant 5** and **Participant 4** perceived the assistant as a stranger in the class. Below are a few examples highlighting this:

*What will that assistant do if they give me an assistant now? Judging by the way our assistant walks at school, between you and me, she just follows this student with disability in class. Yes, that's why I think, well, why would I need a stranger in the classroom who would just follow this child? (**Participant 5**)*

*Why would I need a stranger in my class? I don't really need him. I don't know, it's inconvenient. Either I have to be alone, or someone else is in the classroom. Stranger. (**Participant 4**)*

In addition, **Participant 6** voluntarily refused to have an assistant,

*The student has a peculiarity in behavior, but it is not so difficult that I could not cope with it. At the moment, I believe that I can work with this student. The methods that I use have a positive dynamic, albeit insignificant. If I feel that there is no development, no forward movement, then maybe I will ask for an assistant.*

#### **4.8.3 Participants' Perceptions and Experience Working with Psychologists**

Participants also discussed their perceptions and experience working with psychologists during the interview. The findings showed that three participants reported positive aspects of working with the psychologist, three expressed negative experiences, and one took a neutral position. The other three participants' students didn't work with the psychologist.

Based on the opinion of **Participant 10**, working with the psychologist is fruitful and brings some results, “*The psychologist works every quarter and says good results about work with a student*”. **Participant 6** said,

*We've noticed progress in work with the psychologist because I used to give a student coloring books all the time and send them home. He always used the same color, but now he has already begun to depict brighter drawings. I think this is progress. He became more diligent.*

**Participant 8** also shared a positive comment,

*We have a good and experienced psychologist. She's young, but she's interested in everything. Thus, when the student came after the holidays and couldn't get into this working rhythm in any way. The psychologist helped us. She worked with the student and conducted educational conversations.*

Although there were some cases when the student's parents were against psychological help,

*Some students have parents who disagree. They tell us we don't need a psychologist. Parents say: 'You work by yourself, so work by yourself. Stay in touch with me, but I do not allow you to work with a 'psychologist'. Now, parents think that if a child works with a psychologist, then it means there is something wrong with the child; they perceive it from the bad side. (Participant 10)*

Moreover, the findings demonstrated that some teachers use psychologists as a place to send the student and get rid of the noise that the student is making. To be more specific,

*In many cases, when a student does not obey, I just take him to a psychologist. Because I need to explain the lesson to other children, I must work with 23 students. At this time, I take*

*the student to a psychologist, ask the psychologist to work with him, and ask questions.*

**(Participant 9)**

*For example, in the fifth grade, until you approach a student, he may not write anything. He can come, lie down on the desk, and say, 'I have a headache; I won't write anything'. He will lie down and lie like that. I sometimes send a student to a psychologist because why would a student just sit? Although sometimes I give him the opportunity to lie down, then I give him another task, exactly the one that suits him. (Participant 8)*

However, **Participant 5**, **Participant 3**, and **Participant 2** weren't satisfied with the work of psychologists at their schools.

*The psychologist takes him for a whole lesson, brings him, and that's it. The psychologist comes and constantly picks him up. What are they doing there? Maybe they're torturing him, I don't know. But they're doing something. Well, they probably have some kind of correctional classes there; they are doing something. I have nothing to do with it. The main thing for me is that he comes and works in the classroom. What I give him, he does.*

**(Participant 5)**

*The student is working with a psychologist, but it seems to me that our psychologists do not have enough practical knowledge to work with such children. we still don't have a base as such in working with such children because that's just the third year that the school has been working with inclusive children. (Participant 3)*

*The psychologist was sitting in our class. The psychologist is a very interesting person. He sat in class once, left, and didn't say anything, but honestly, I didn't go to him. I don't think he will give me good advice; last year I went to him for advice. He told me to love the student, call him by name and that's it. I always call him by name; I don't know how to love him. Working with the mother is necessary; it's still from the family. So the parents didn't give*

*enough love to the child. This has been happening for the second year, and there has been no result. (Participant 2)*

#### **4.8.4 Participants' Perceptions and Experience Working with the School Administration**

Participants were also asked about the school administration. The results demonstrated that some teachers (five) don't get much support or help from the school's administration. Below are a few examples highlighting this:

*I can't say that they provide any great support. They provide assistance only if the child is aggressive. The child is sent to a psychologist; they do not provide support from the other side. The administration does not give me an assistant because there is no assistant. (Participant 9)*

*We ask our colleagues for help, but we cannot go to the administration. If you come to work, then you need to work. They only demand results from us, the quality of education, and work performance. And then they evaluate us in which direction we are working. Maybe if you go to them, they'll help. But I think an administration is an administration. I asked my colleagues for help and engaged in self-education. (Participant 10)*

In addition, **Participant 10** shared her story when she needed an assistant for individual work with the students, but there were no assistants at schools,

*I need an assistant, but there are no assistants. I think that the school's management will most likely tell me to keep working on my own because there are no assistants. School management will say: 'You're a teacher, so work'. But if there is a child in the classroom with low attention, inclusive, and still hyperactive, it is very difficult for teachers. It will be right to deal with such children individually.*

Similarly, *Participant 3* and *Participant 2* described the role of administration at their schools:

*To be honest, between us, no one supports. It seems to me, on the contrary, it's even worse, they put pressure on us to work, to show our work in this regard; it's hard here. There is no such strong support. (Participant 3)*

*If it were written on a piece of paper that the student has a diagnosis, then he is sick and individual education with the assistant should be provided to him. And when I just thought so... Here I foresee the director, he is always with us: "Where is the piece of paper confirming the diagnosis?", "What difference does it make what you thought there?" we cannot do without a piece of paper. It will be purely my initiative. The director likes it when we solve our problems ourselves. He especially does not like us to approach him with unresolved problems. He likes us to turn to head teachers and psychologists. The last stage is to the director; when we have passed all the instances of the school, he will already be the last one that we turn to him. (Participant 2)*

Two participants reported receiving assistance from the school. *Participant 6* stated,

*It was especially hard for me in the first days. I asked for help, the psychologist came, and the school administration supported me. Both the main head teacher and the head teacher immediately gave recommendations for methodological work. Help is being provided.*

In a similar vein, *Participant 4* highlighted the role of administration in her school, "They will always support you if you apply. If not by deed, then they will advise on what can be done, how best, or where to look at it and read about it".

#### 4.8.5 Participants' Perceptions and Experience Working with Parents

Participants also reported essential factors such as the role of the parents in their child's life. The findings demonstrated that all cases are different, but most students with ADHD had complicated relationships with their parents. Thus, **Participant 10** described the importance of parents spending time with their children and emphasized that teacher's work also includes educating students' parents,

*All parents and children are different. There are some parents who agree to work together to show some kind of result. We are always in touch throughout the year. And some parents say they don't have time at all. The parents of the first child simply say there is no time when you need to spend at least 15 minutes in the evening with the child, ask how he is doing, how was the day. If a parent does not devote time to a child, I consider it a mistake. I not only work with children but there have been cases when I worked with my parents and educated them.*

Another narrative by **Participant 9** involved complicated relationships between mother and son,

*Of the parents, the child has only a mother, and the mother does not look after the child. Basically, the child is raised by his grandmother. Mom gets married endlessly. The family is complicated. Several times, I, the social pedagogue, and the director visited the child's home. There is no need to blame the child; everything is connected with the family.*

The next case by **Participant 8** included the family situation of the student with disruptive behavior,

*The child lost his mother at the age of five. His father, grandmother, and grandfather raised him. The child's father tried to make an effort, but his grandmother was more involved in his upbringing. often, I didn't even tell him about the problems in the classroom. Most often I*

*turned to the child's grandmother because the father is very aggressive. The father punished the child.*

Just a note to say it is just assumed to be ADHD.

Thus, **Participant 8** described a situation when a student with disruptive behavior needed an assistant, but the student's father was against it, *"I tried to get an assistant in the second grade, but we couldn't persuade the father to take the child to the psychological and pedagogical commission. He does not have a PMPC certificate yet. The child still needs an assistant"*.

One more story presented by **Participant 2** described a family issue of the student with disruptive behavior and his mother, *"Mom says that she can't handle him. She most often starts hitting him, so I less often inform her of her child's behavior"*.

#### **4.9 Teachers' Recommendations**

Toward the end of the interview, all participants were asked about their personal recommendations regarding improving inclusive education in a suburban area of Aktobe. Most of the participants (eight) recommended creating courses on a school basis, emphasizing the practical side rather than theoretical aspects. Below are a few examples that support this:

*Every school teacher needs courses, retraining, and preparation. We are given more theory; it does not overlap with practice. The theory doesn't stay in our heads like practical exercises. (Participant 6)*

*I would like to be told about ADHD, but not just as a theory. So that it is connected with the practice of some examples. We are teachers of practice; we need to be shown how to work with them. (Participant 2)*

*Maybe it would be possible to organize seminars, master classes, and workshops to show and demonstrate which tasks to select. Maybe there are some nuances that we don't know*

*yet. Let's say there are such children, but everyone works with them in their own way; how can they work because no one taught us this. Maybe the coach will be able to share some information in some master class on how to organize work in the lesson. We know how, but perhaps we could apply someone else's experience and take some techniques/methods for ourselves. It will never be superfluous to replenish your knowledge base. (Participant 1)*

*Participant 4* wanted to learn work with documentation, “*How to work with these diagnoses in general in terms of documentation*”. In addition, *Participant 6* and *Participant 3* asked for methodological support, “*We need collections of didactic materials; there is very little information that is offered to us*”; “*Methodological assistance that is required by all teachers who work with such children*”.

Another important recommendation by *Participant 8* was to ask for students' characteristics from kindergarten and decrease the number of students in the classroom,

*We need to look, and in general, before the first grade, we need to find out what kind of children they are before forming a class. From kindergarten, ask them for the characteristics of the children in order to distribute them approximately correctly because there definitely shouldn't be so many hyperactive students in one class.*

*If there are 3-5 people in a class of hyperactive children like mine, then you need to reduce the number of children. There should be 15 people in total; 20 is even a lot. Because everyone needs an individual approach. This is my opinion.*

No less essential recommendations by *Participant 6* and *Participant 3* are to create rooms where typical students and students with special needs can play and relax,

*More room to maintain physical activity. A room where they can relax so that it is equipped with all the facilities. (Participant 6)*

*The only thing that schools should create is if there is such a child in the classroom, his fatigue is faster than others. Creating recreation, reflective corners, and playrooms for these children is necessary. We have a correction room, but it's still poorly equipped. More educational games are needed. (Participant 3)*

#### **4.10 Conclusion**

This chapter explores participants' experiences with ADHD students in Aktobe's suburban primary schools, focusing on their understanding, teaching strategies, and challenges. The analysis of 10 in-depth interviews with primary school teachers served as the basis for the results. The findings demonstrate that most participants define inclusive education from a special education orientation – the education of students with medical diagnoses, special needs, and health issues in mainstream schools. Additionally, results show that most participants are not aware of ADHD. Furthermore, participants shared strategies they use in the classrooms when they engage and work with students with ADHD related symptoms, such as additional tasks, individual work, and pair or group work. Moreover, the results indicate that the majority of participants did not get formal education regarding inclusive education or covering ADHD. However, some received training as part of staff development, and others took their own individual agency to train themselves. Lastly, the findings show how participants interact with the school community on issues related to inclusive education and teaching students with ADHD related symptoms. The following chapter presents a discussion of these research findings.

## Chapter 5. Discussion

### 5.1 Introduction

This chapter extensively discusses the research findings presented in the previous chapter and provides the responses to the study's main research questions. The following research questions served as the basis for this study: 1. *What are the teachers working with primary school students with ADHD understanding of ADHD?* 2. *What strategies are teachers using in teaching primary school students with ADHD?* 3. *What challenges do teachers face during the educational process with primary school students with ADHD?* 4. *What implications can be drawn from the study findings for policy, practice, and research?* The chapter consists of seven main sections, arranged as follows: participants' profiles, teachers' understanding and perceptions of inclusive education, teachers' understanding of ADHD, strategies teachers use in teaching students who might have ADHD, teacher training related to teaching students with ADHD, the school community in influencing teachers' perceptions regarding ADHD, and conclusion.

### 5.2 Participants' Profiles

Literature suggests that the number of teaching years or age influences attitudes toward inclusive education. To be more specific, the study in Serbia explored the teachers' attitudes toward inclusive education. It revealed that younger teachers and teachers with less work experience have more positive attitudes toward inclusive education compared to more experienced teachers (Galovic et al., 2014). Similarly, the study in the USA that examined factors that influence primary school teachers' attitudes toward inclusive education showed that older educators typically hold less positive views about inclusive education (Vaz et al., 2015). However, this research study shows that how people perceive inclusive education depends on the individual, not on the years of experience or age, whether the experience is 38 or 8 years.

It is also important to note that School A and School B teach in Kazakh and Russian, whereas School C only teaches in Kazakh. Generally, School A and School B are better at supporting and meeting the needs of students with special needs than School C.

### **5.3 Teachers' Understanding and Perceptions of Inclusive Education**

The current study's findings demonstrate that most participants had a poor understanding of inclusive education, which was viewed in a limited manner and focused only on disabilities, a special education orientation. Although a study in Kenya, for example, reports that during the last decade, the approach to disability has shifted from the medical model to a social model and now to a more human rights-focused approach with an emphasis on reducing societal barriers and upholding the rights of everyone (Adoyo & Odeny, 2015), this study's findings highlight that participants still use medical expressions, such as medical diagnoses and health problems, and perceive inclusive education from the medical model. This might be the case as the official documents in Kazakhstan mostly still use medical terms like 'defectology'.

Two participants comprehend inclusive education in broader ways than the rest of the participants. They stated the importance and benefit of their professional development training viewed inclusive education. The most convincing explanation for this is that these two participants had received some training in inclusive education. On the other hand, participants who complained about the quality of the inclusive education training they received as part of their professional development perceived inclusive education in a limited manner, which means that either the courses were not comprehensive enough or participants didn't learn the suggested material.

### **5.4 Attitudes Towards Inclusive Education**

Another important finding is teachers' attitudes toward inclusive education since it can significantly impact their ability to support their students adequately. Half of the participants hold positive attitudes toward inclusive education, and the other half hold negative views. The findings

suggest two things. First, the attitudes toward inclusive education are based on the individual. Second, similar to the findings of a study in Finland on teachers' attitudes toward inclusive education that claims that the type of the student's disability has been determined to have the strongest correlation with teachers' attitudes toward inclusive education (Saloviita, 2020), the current research demonstrated that type of the student's disability can impact on the teachers' perceptions toward inclusion. Thus, teachers are more likely to welcome students with mild impairments into their classes than those with significant intellectual disabilities or disruptive behavior issues (Saloviita, 2020).

### **5.5 Teachers' Understanding of ADHD**

Since teachers are typically the ones who can recognize the early signs of ADHD, it is important to assess the current state of teachers' knowledge of ADHD and determine areas that might use improvement in order to support students with ADHD in primary schools successfully. In addition, it is essential to check teachers' understanding of ADHD because teachers' expertise and knowledge will influence how they interact with and manage ADHD students (Safaan et al., 2017).

The present study demonstrates that an overwhelming majority of participants lack an understanding of ADHD, some of the participants didn't hear about ADHD at all, and a small number of participants were aware of ADHD. The findings of earlier research from Australia investigated the effectiveness of in-service training workshops in enhancing primary school teachers' comprehension of ADHD (Latouche & Gascoigne, 2019) and indicated that although primary school teachers may have an elementary comprehension of ADHD, they often lack the knowledge and skills necessary to identify and support students with ADHD in the classroom which is aligned with the current study. Consistent with other research findings (Akatayeva, 2020; Al-Moghamhsi & Aljohani, 2018; Blotnicky-Gallant et al., 2015), the results of this study showed that primary school teachers were mostly aware of ADHD symptoms and least knowledgeable about the

causes and effects of ADHD. This might be explained by the fact that either the participants didn't attend courses on ADHD or the provided courses didn't cover the material on ADHD.

Comparable results have been determined in the study conducted in Nepal on evaluating school teachers' knowledge of students with ADHD (Bhattarai & Sharma, 2019) that explained the reasons for teachers' insufficient understanding of ADHD by the fact that the majority of teachers received neither in-service education nor training, making it harder to recognize such behavioral issues. So, it is evident that a lack of training immediately impacts teachers' understanding of ADHD, which corresponds with the study in Africa on evaluating how an ADHD training program has affected primary school teachers in Nigeria's understanding of ADHD and their attitudes toward students who have ADHD (Lasisi et al., 2017).

Since there was no diagnosis, assuming that the participants' narratives about symptoms of their students are indeed students with ADHD, they only mention boys with ADHD. These results are in line with the study in the USA claiming that there are about 2.5 boys for every girl with ADHD and about six boys for every girl with ADHD referred to clinics (Berri & Al-Hroub, 2016). This bias arises because boys' symptoms of impulsivity and hyperactivity are more likely to be observed by teachers. In contrast, girls' signs of ADHD are less likely to be reported since they exhibit fewer problems in the classroom (Berri & Al-Hroub, 2016).

Another key finding was that primary school teachers are among the first to notice any signs of untypical behavior after kindergarten because teachers constantly communicate with their students. This finding is consistent with previous research on evaluating the knowledge, attitudes, and behavior strategies of primary school teachers as well as the impact of a structured teaching program on these areas conducted in Egypt (Shehata et al., 2016), which found that primary school teachers play a significant role in identifying disruptive behavior of students and assessing students' academic and behavioral issues as teachers regularly interact with students across a variety of controlled and uncontrolled settings. Similarly, the study exploring primary school teachers'

attitudes toward students with ADHD and the role of pharmacological treatment in England (Moldavsky et al., 2014) highlighted teachers' role in identifying, referring, and managing children and adolescents with ADHD.

### **5.6 Strategies Teachers Use in Teaching Students Who Might Have ADHD**

The current study's findings demonstrated that although primary school teachers in a suburban area of Aktobe didn't get adequate training on ADHD, they are still taking some initiatives in responding to students who might have ADHD or behavior issues. This shows that teachers are willing to help and meet the needs of students who might have ADHD.

The present study revealed that teachers employed different strategies to manage the critical symptoms shown by the students. Thus, teachers practiced student-centered methods, focusing on the individual (Moore et al., 2017). Using this technique, the student engages in learning because the teacher targets his interests. Furthermore, primary school teachers utilize additional tasks or physical activities to manage hyperactivity. The study in the UK demonstrated that allowing motion and movement to hyperactive students is beneficial (Moore et al., 2017). Moreover, the findings demonstrate that primary school teachers also focused on improving relationships with other students by practicing pair and group work.

### **5.7 Teacher Training Related to Teaching Students with ADHD**

This study uses Bronfenbrenner's Ecological Systems theory to conceptualize and understand teachers' experience dealing with students with ADHD. Thus, applying Bronfenbrenner's Ecological Systems theory can help analyze different factors influencing teachers' experiences and perceptions. Using the theory can help frame the issue and understand how training teachers receive throughout their careers and higher education can impact their comprehension of ADHD and inclusive education in general. Therefore, to comprehend the teachers' experience, it is essential to look not only at teachers as individuals but other factors that might influence their

perceptions and experiences, e.g., the training teachers got at their pedagogical universities and job places as part of their professional development. Teachers' training, which seems to fit in Bronfenbrenner's macrosystem, has some cultural influences that have long-term effects on the centered individual (Neal & Neal, 2013). Training at pedagogical universities and job places is considered to be a big part of the cultural philosophy at schools, which is impacted by cultural standards. Therefore, studying teachers' experiences in their training at a cultural level is essential because teachers' training relates to the whole system and is interconnected with other layers, according to Bronfenbrenner's Ecological System theory.

The findings of the presented study demonstrate that, according to the narrative of one of the teachers, she studied defectology during her studies at a pedagogical university. This shows that inclusive education was viewed through the lens of special education, which might affect the teachers' attitudes toward inclusive education and students with ADHD nowadays. Moreover, teachers' attitudes might be influenced by inadequate or absent training. This result is in line with the study conducted in South Africa (Perold et al., 2010) that reports that having little or no training in ADHD and its management in the classroom limits teachers' knowledge of the disorder where some of their information comes from what is depicted about ADHD in media reporting, which is frequently erroneous and not based on scientific study.

The present study also reveals that most participants are unsatisfied with the quality of suggested courses or training where the study (Sokal & Sharma, 2013) in Canada investigating concerns, efficacy, and attitudes of teachers about inclusive education reported that teachers' top concerns were inadequate preparation for teaching in inclusive classrooms, excessive workloads, and a lack of resources where some of these problems were thought to be resolved by professional development through in-service training. However, unlike in a Canadian study (Sokal & Sharma, 2013), this research shows that professional development didn't help most participants in their teaching practice in inclusive classrooms. A possible explanation for this study's results is the

prevalence of the theoretical component in the courses they attended. Teachers complained about the lack of practical information they could apply during their lessons. This finding is consistent with previous research examining the attitudes of preschool teachers toward inclusive education in Hong Kong (Lee et al., 2015), which found that even though teacher training programs provided teachers with some rudimentary awareness regarding special needs, they typically have pessimistic opinions on kids with special needs because training's lacked practical teaching techniques. Thus, after the courses provide theoretical knowledge, teachers need to face reality at schools. On the other hand, in general, there is a positive side that their schools somehow support teachers and promote professional development so that teachers can get some training on inclusive education.

Another important finding of this research is that participants also obtain new knowledge through self-education despite the professional development they get, which underlines that teachers are taking the initiative and pursuing the concept of lifelong learning. However, the findings indicate that one of the participants mentioned social media as a source for obtaining new information, which can be inaccurate and not supported by scientific research. A study in India about evaluating teachers' knowledge and misperceptions about ADHD (Shroff et al., 2017) highlights the importance of training sessions for teachers where they can get scientifically based and credible information regarding ADHD because teachers' understanding of the characteristics of ADHD can influence how they deal with students with inattentiveness and hyperactivity in their classrooms.

### **5.8 The School Community in Influencing Teachers' Perceptions Regarding ADHD**

To understand the issue more deeply, it is essential to research how external factors such as teachers' colleagues, assistants, psychologists, school administration, and parents affect teachers.

The study showed that these primary school teachers' experiences working with their colleagues in a suburban area of Aktobe are divided into two categories. The first category is teachers willing to collaborate and support each other. The second category is teachers who reported difficulties in working with their colleagues. One of the possible explanations for the second

category is a lack of teachers' knowledge or professional unpreparedness. The findings of research in Ireland on investigating how professional development related to the individual education plan process affects teachers' perceptions and behaviors (Bhroin & King, 2019) align with the current study, which states that insufficient professional preparation, incompatible personalities, or instructional philosophies, a lack of devoted time, and the pressure of responsibility and standardization are some of the obstacles to collaboration that educators identify. In contrast to the previous finding, the study conducted in Ireland (Bhroin & King, 2019) also reports that effective implementation of new, student-centered, and collaborative learning techniques is facilitated by teacher collaboration. Thus, it seems that fresh and student-oriented methodologies can be created when teachers are professionally prepared and collaboratively work with their colleagues.

The findings also demonstrate that most participants either misunderstood the role of assistants or perceived them as strangers in the classroom. However, some teachers like the idea of having an assistant in the classroom, which is supported by Chambers's (2015) study published in the UK exploring how staff members can collaborate with teaching assistants and other support personnel in the classroom to adopt inclusive teaching methods successfully, indicated that educators identified the recruitment of teaching assistants as a crucial type of assistance required in a typical classroom to guarantee that the integration of students with disabilities was optimized for everybody involved. Chambers' (2015) study also specifies how to ensure collaboration between teachers and assistants. These elements include the school's appreciation of the assistants' work, participation in the planning and review process, the chance to participate in frequent meetings, their ability to collaborate, and the offer of high-quality professional learning. Thus, it demonstrates that the school's support and active participation of assistants are essential to avoid the concept of strangers in the classroom.

Another key finding of this research worth discussing is how participants perceive and work with the psychologists. The findings of this study show that some teachers are unsatisfied with the

work of the psychologists, some use psychologists as a source of distraction from noises, and some notice signs of progress in work with the psychologist. Chambers (2015) describes the factors that contribute to the lack of involvement of psychologists in working with teachers, such as school psychologists' lack of initiative in educating and training teachers and teachers' ignorance of the psychologists' possible support options. In our case, the reason might be that teachers are unaware of the possible ways of assistance the psychologists may offer. It's been reported that the educational psychologist's role has evolved from direct contact with students in the classroom to consultation and advice. In this capacity, the psychologist communicates with teachers about the needs of students who require support, conducts assessments of the students, and assists in creating learning experiences that are appropriate for the students (Chambers, 2015).

The study also explored primary school teachers' perceptions and experience working with the school administration. The findings demonstrated that one of the critical issues in a suburban area of Aktobe is the lack of specialists such as assistants and psychologists. Additionally, the teachers' narratives showed that school administration, specifically school principals, practiced a top-down approach to the school staff, demonstrating a hierarchical position. In our case, it can be seen that a top-down approach created a division between staff who hold higher positions and a lower one, which can lead to the fear of communicating school staff with the administration. Moreover, in a top-down approach, teachers are deprived of the opportunity to take action. A study in Germany examining the effect of school leadership on implementing inclusive education (Lambrecht et al., 2020) claimed that school leaders must enhance their staff's enthusiasm, abilities, and working circumstances to promote the finest education possible for all students, especially underprivileged ones. Research revealed that inclusive school development required collaboration not just between educators and pedagogic staff but also in terms of decision-making processes. Unlike the study in Germany, the present study demonstrated some gaps between school administration and school teachers, where teachers cannot share their problems and participate in

decision-making. One of the potential explanations is that school leaders might not have gotten an appropriate education on how to manage an inclusive school system because the roles and responsibilities of school principals may shift when an increasing number of students with disabilities are integrated into general education classrooms (Sun & Xin, 2019).

The current study also examined participants' perceptions and experience working with parents. The study demonstrated that parents' role in a child's education is significant, especially parents' support. Good relationships with teachers are important because making contact and building trusting relationships is challenging. This finding aligns with Afolabi et al. (2013) critical review of literature that states that parent participation improves teacher morale, fosters a supportive school environment for inclusive practices, and strengthens the teacher-parent relationship. Furthermore, Afolabi et al. (2013) also mentioned the recommendation that schools should prioritize developing positive relationships with all parties involved, including cooperation with teachers, families, and other community members because the research indicated that children perform significantly better academically and spend more time studying when there is a strong collaboration and partnership between schools and families.

## **5.9 Conclusion**

This chapter discusses the key findings of the present study. The study's results discovered that participants lack an understanding of inclusive education because they view it narrowly and concentrate only on students with disabilities. The results also showed that most of the participants had a poor understanding of ADHD. Some had never heard about ADHD, and only a small number knew some symptoms of ADHD. The research also discovered that the training teachers received at pedagogical universities and job places theoretically covered inclusive education and didn't cover ADHD, which caused most of the teachers' dissatisfaction with the provided courses. Furthermore, the study looked at the role of the school community, which includes colleagues, assistants, psychologists, school administration, and parents, in influencing teachers' perceptions regarding

ADHD. Applying the theoretical framework together, they make up a whole system that may influence teachers' perceptions and experiences toward teaching students with ADHD and inclusive education, therefore, support and assistance of each layer of the school community is essential. The following chapter presents the conclusion.

## Chapter 6. Conclusion

### 6.1 Introduction

The previous chapter outlined the discussion of key results of the study, and this chapter presents the summary of the research study. The chapter consists of four main sections. The first section covers implications for policy, and the second section explains implications for practice. The third section discusses the implications for research, and the fourth section concludes the whole research study. This study aimed to explore teachers' experiences teaching and engaging with students with ADHD in primary schools in the suburban area of Aktobe. The following research questions guided this study: 1. *What are the teachers working with primary school students with ADHD understanding of ADHD?* 2. *What strategies are teachers using in teaching primary school students with ADHD?* 3. *What challenges do teachers face during the educational process with primary school students with ADHD?* 4. *What implications can be drawn from the study findings for policy, practice, and research?*

Since teachers are crucial to the educational process, understanding the primary issues they face could improve education practices in Kazakhstan and increase understanding of inclusive education and ADHD in the suburban area of Aktobe. Therefore, this study had four key findings. The first crucial finding is that most participants had limited comprehension of inclusive education, which was limited to the special education orientation of focusing solely on disabilities. The second important result is that most of the participants had little knowledge about ADHD, and others had never heard of the disorder at all, whereas only a small number of participants were aware of the ADHD symptoms. The third key finding is that with regard to training, most participants didn't get any training on ADHD and are dissatisfied with the suggested course options available to them in Aktobe. However, despite lacking proper training on ADHD, some participants are using their agency - devising ways to help students who may be experiencing behavior problems or ADHD. The last important finding is that the study explored the role of additional factors on teachers, such

as assistants, psychologists, school administration, and parents, and discovered that using the theoretical framework, all of the major stakeholders in the system may have an impact on how teachers view and approach teaching students with ADHD and inclusive education; for this reason, it is crucial to have the support and cooperation of all school community layers. In the next section, I look at the implications of these findings for policy, practice, and research.

## **6.2 Limitations**

The present study has one limitation. The limitation is that during the analysis of the collected data, there was an inherent danger that some rich data may have been lost during the translation process because many Russian and Kazakh concepts and terms do not have exact English equivalents, which can lead to nuanced meanings being lost in translation. However, to reduce the loss of some data to a minimum, I translated the information from Russian or Kazakh to English and then back from English to Russian or Kazakh to check the correctness of the translation.

Despite this limitation, the study is significant because primary school teachers' voices in the suburban area of Aktobe were heard, and their experiences in inclusive education and teaching students with ADHD were explored.

Considering the study results it is suggested to conduct more studies to explore other stakeholders' perceptions and experiences in working with students with ADHD. Another potential area for research is to examine the efficacy of adopted interventions and strategies toward students with ADHD in Kazakhstan.

## **6.3 Implications and Recommendations for Policy**

Policymaking requires a deep understanding of the challenges that teachers face in inclusive education, particularly in teaching students with ADHD. The findings of this study are important as they provide insights that could influence existing laws, regulations, and the allocation of resources at various levels. This is especially pertinent in Kazakhstan, where the exploration of these issues in

rural areas or at the suburban level has revealed significant obstacles that teachers encounter in supporting inclusive practices at schools. In particular, teachers in the suburban areas of Aktobe require considerable support, suggesting a need for a revision of current educational policies. These changes could facilitate the development of training programs and initiatives that are tailored to the local demands of inclusive education.

Moreover, the research highlights a critical gap in the current initial teacher education programs in Kazakhstan. There is a clear deficiency in skills and knowledge among teachers regarding inclusive practices and specific strategies for supporting students with ADHD. This necessitates a comprehensive redesign of the initial teacher training curriculum to include detailed theoretical and practical components aimed at addressing the needs of students with ADHD. Additionally, the findings underscore an urgent need for the allocation of resources. Schools in the suburban area of Aktobe are notably lacking in specialists such as teaching assistants and psychologists, which are essential for the full support of students with special needs.

The implications of this study are not confined to the local level; they have the potential to influence decision-making on a global scale. The experiences of the participating teachers from Aktobe contribute to broader global educational practices and policies. By addressing these issues, stakeholders can ensure that inclusive education strategies are both effective and comprehensive, meeting the diverse needs of students with ADHD and enhancing educational outcomes worldwide.

#### **6.4 Implications and Recommendations for Practice**

Abai Kunanbayev's (2005) philosophical insights in his 'Book of Words' significantly impact teacher education and the inclusion of students with ADHD. His advocacy for commitment to a child's education and a non-competitive educational paradigm underlines the importance of creating learning environments tailored to individual needs, particularly beneficial for students with ADHD. These principles suggest that teacher preparation programs must integrate approaches that prioritize intrinsic growth over competitive achievements.

The experiences of participants further reveal a critical need for specialized training. To address these issues, it is recommended that teacher education programs revise their curricula to include training that fosters individualized learning environments. Schools should also offer professional development workshops providing practical strategies for supporting students with ADHD, thus enhancing classroom environments to be more welcoming and empathetic. Additionally, reevaluating school hierarchical structures to involve more teacher participation in decision-making and ensuring that school leaders receive ongoing training are crucial for effectively managing inclusive educational practices. These recommendations aim to bridge the gap between current teaching practices and the inclusive, individual-focused education advocated by Abai, enhancing overall educational outcomes for students with ADHD.

### **6.5 Implications and Recommendations for Research**

This section outlines the implications for research from the study, which holds significant value for advancing inclusive education in Kazakhstan and other similar contexts. The study reveals challenges faced by primary school teachers in suburban Aktobe in teaching students with ADHD, indicating areas where educational practices can be improved. Utilizing Bronfenbrenner's Ecological Systems Theory provided a robust framework for understanding how various stakeholder relationships impact teachers' experiences and perceptions. Future research should explore the application of this theory in other geographically isolated settings to verify its usefulness and potentially refine its use in educational research. Additionally, research could investigate specific interventions that address the identified challenges, assessing their impact on teaching practices and student outcomes. By focusing on these areas, subsequent studies can contribute to the development of practical, theory-based solutions that enhance support for students with ADHD and improve educational inclusivity.

## **6.6 Conclusion**

This study fulfilled its aim by exploring the teachers' experiences in dealing with students with ADHD in primary schools in Kazakhstan. It facilitated significant personal and professional growth, particularly in developing analytical skills. Regardless of the minor limitations highlighted earlier, the study comprehensively addressed the four research questions, as detailed in the discussion section. The findings contribute rich insights that not only help to enhance teaching practices in Kazakhstan but also inform inclusive educational policies, offering valuable recommendations for various stakeholders.

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## Appendices

### Appendix A



**Thesis Title:** Primary School Teachers' Experience of Teaching Students with Attention Deficit Hyperactivity Disorder in the Suburban Area of Antioch

#### Appendix A – Declaration of the Use of Generative AI

I hereby declare that I have read and understood NUGSE's policy concerning appropriate use of AI and composed this work independently (please check one):

- with the use of artificial intelligence tools, or  
 without the use of artificial intelligence tools.

(If you have used AI tools as defined in the GSE policy document, please complete the rest of this form.)

During the preparation of this thesis/examination, I used Quillbot and Grammarly [NAME of TOOL] to paraphrase and edit the data [REASON]<sup>1</sup>.

I also declare that I

- am aware of the capabilities and limitations of AI tool(s),  
 have verified that the content generated by AI systems and adopted by me is factually correct,  
 am aware that as the author of this thesis I bear full responsibility for the statements and assertions made in it,  
 have submitted complete and accurate information about my use of AI tools in this work, and  
 acknowledge that there may be disciplinary consequences if I have not followed NUGSE's guidelines regarding AI appropriate use.

Name: Melchior Sactrulora

Signature: Cecilia

Date: 22.04.2024

## Appendix B

### Consent Form

#### CONSENT FORM

##### Primary school teachers' experience of teaching students with ADHD in the suburban area of Aktobe

I hereby agree to participate in research on primary school teachers' experience of teaching students with ADHD in the suburban area of Aktobe. I understand that I am participating freely and without being forced in any way to do so. I also understand that I can stop participating at any point should I not want to continue and that this decision will not in any way affect me negatively. I understand that this is a research project whose purpose is not necessarily to benefit me personally in the immediate or short term. I understand that my participation will remain confidential. I also agree to the audio recording of my participation. I understand that I might be requested to be interviewed again during the last round of the data collection process. I understand that the information that I provide will be stored electronically and will be used for research purposes now or at a later stage.

Name: .....

.....

Signature of participant

Date:.....

#### ФОРМА СОГЛАСИЯ

##### Опыт учителей начальных классов по обучению учащихся с СДВГ в пригородном районе Актобе

Настоящим я даю согласие на участие в исследовании опыта учителей начальных классов по обучению учащихся с СДВГ в пригороде Актобе. Я понимаю, что участвую свободно и никоим образом не принуждаюсь к этому. Я также понимаю, что могу прекратить участие в любой момент, если не захочу продолжать, и что это решение никоим образом не повлияет на меня негативно. Я понимаю, что это исследовательский проект, целью которого не обязательно является получение выгоды лично для меня в ближайшей или краткосрочной перспективе. Я понимаю, что мое участие останется конфиденциальным. Я также согласен на аудиозапись моего участия. Я понимаю, что меня могут попросить пройти повторное собеседование во время последнего этапа процесса сбора данных. Я понимаю, что информация, которую я предоставляю, будет храниться в электронном виде и будет использована в исследовательских целях сейчас или на более позднем этапе.

Имя: .....

.....

Подпись участника

Дата:.....

## Appendix C

### Interview Schedule

**Name:** Moldir Seitkulova

**Study:** Primary school teachers' experience of teaching students with ADHD in the suburban area of Aktobe

**Program:** M.Sc. Ed. Leadership in Inclusive Education

The questions listed below will serve as a guide for my interviews. It's important to note that the sequence and exact wording of these questions may vary across different interviews, in line with the fluid nature of qualitative research.

#### **1. What are the teachers' experiences working with primary school students with ADHD?**

*How many years have you been teaching in primary school?*

*How did you learn about ADHD? (Depending on the initial responses, some probing questions will use the Ecological Theory.)*

*What do you know about ADHD? (Some probing questions will come depending on the initial responses.)*

*Have you been trained to teach students with ADHD? (Some probing questions will come depending on the initial responses.)*

**2. What strategies are used by teachers in teaching primary school students with ADHD?**

*What strategies do you use in teaching primary school students with ADHD?*

*What kind of strategies are successful in teaching these students?*

*Which strategies are difficult in your experience teaching students with ADHD?*

**3. What challenges do teachers face during the educational process with primary school students with ADHD?**

*What challenges have you faced during the educational process with primary school students with ADHD? (Some probing questions will come depending on the initial responses.)*

*How have you solved/ are you solving these challenges?*

*Did you receive training to solve these problems?*

*Who participated in solving these problems? (Some probing questions will come depending on the initial responses.) – the role of other teachers, school administration, and parents.*

**4. Recommendations and suggestions**

*What would you recommend or suggest for teachers to be prepared enough to support students with ADHD in Kazakhstan?*



<p>the 2nd grade in 2018. We studied with him <b>individually</b>, gave him <b>additional tasks</b>, and invited him to <b>additional lessons</b>. Now, this child has moved to the 8th grade. He's doing well now. But unlike primary school, students in high school change. <b>This hyperactive behavior occurs in a child up to about 9 years old.</b></p> <p>Did you study inclusive education during your education?</p> <p>- I <b>took Orleu courses once</b> to get a certificate. I <b>studied online</b> and <b>took little from the courses</b>. But it <b>might have been different if the courses had explained the information offline</b>. I <b>work based on my experience and self-education</b>. I <b>did not receive any other additional education on inclusive education</b>.</p> <p>Have you received training in working with children with ADHD?</p> <p>- I <b>have not received training in working with children with ADHD</b>. I <b>searched for all the necessary information myself</b>.</p> <p>How do you feel about children with ADHD?</p> <p>- To be honest, sometimes when <b>working with children with ADHD</b> I get tired and</p>	<p>Individual, additional tasks. Additional lessons.</p> <p>This hyperactive behavior occurs in a child up to about 9 years old.</p> <p>Took Orleu courses once.</p> <p>Studied online Took little from the courses.</p> <p>Work based on my experience and self-education.</p> <p>Might have been different if the courses had explained the information offline.</p> <p>Did not receive any other additional education on inclusive education.</p> <p>Have not received training in working with children with ADHD.</p> <p>Searched for all the necessary information myself.</p>	<p>Teacher training</p> <p>Recommendations</p>
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<p>sometimes I get angry. If there are 23 students in a class, it is very difficult for me to do additional work because they cannot all be as one. Nowadays, all children are different, and they have their own rights, so I accept them regardless of the circumstances.</p> <p>What strategies do you use when working with children with ADHD?</p> <p>- At the beginning, I give all students the same tasks to improve attentiveness. Then, I work individually with students who have reduced attentiveness.</p> <p>What strategies have not been successful when working with children with ADHD?</p> <p>- At the beginning, I didn't know what to do, I asked my colleagues for help. Colleagues gave their advice. I think the most important thing here is patience.</p> <p>What role does the school administration play?</p> <p>- We ask our colleagues for help, but we cannot go to the administration. If you come to work, then you need to work. They only demand results from us, the quality of</p>	<p>Working with children with ADHD, I get tired, and sometimes I get angry.</p> <p>All children are different, and they have their own rights, so I accept them regardless of the circumstances.</p> <p>I work individually with students who have reduced attentiveness.</p> <p>I asked my colleagues for help. Colleagues gave their advice.</p>	<p>Teachers' attitudes toward inclusive education</p> <p>Role of colleagues</p> <p>Lack of help from school</p>
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<p>education, and work performance. And then they evaluate us in which direction we are working. Maybe if you go to them, they'll help. But I think an administration is an administration. I asked my colleagues for help and engaged in self-education.</p> <p>Does a psychologist work with children with ADHD?</p> <p>- A psychologist works every quarter and reports the results. Some students have parents who disagree. They tell us we don't need a psychologist. Parents say: 'You work by yourself, so work by yourself. Stay in touch with me, but I do not allow you to work with a 'psychologist'. Now, parents think that if a child works with a psychologist, then it means there is something wrong with the child; they perceive it from the bad side.</p> <p>What role do parents play in the lives of children?</p> <p>- All parents and children are different. There are some parents who agree to work together to show some kind of result. We are always in touch throughout the year. And some parents say they don't have time at all. The parents of the first child simply say there is no time when you</p>	<p>Can't go to school administration for help.</p> <p>Psychologist works every quarter and reports the results.</p> <p>Now, parents think that if a child works with a psychologist, then it means there is something wrong with the child; they perceive it from the bad side.</p> <p>There are some parents who agree to work together to show some kind of result.</p>	<p>administration</p> <p>Role of psychologists</p> <p>Role of parents</p>
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<p>need to spend at least 15 minutes in the evening with the child, ask how he is doing, how was the day. If a parent does not devote time to a child, I consider it a mistake. I not only work with children, but there have been cases when I worked with my parents and educated them.</p> <p>What recommendations can you give for the development of inclusive education?</p> <p>- The most important thing is patience, search, and creativity. Find the key to a child's heart. It seems to me that hyperactive children with reduced attentiveness need the assistant; working every day with an assistant at the end of the quarter can show results. Without an assistant, working with the whole class can be difficult because you need to pay attention to everyone.</p> <p>How do you think they would give you an assistant if you asked the school administration?</p> <p>- I need an assistant, but there are no assistants. I think that the school's management will most likely tell me to keep working on my own because there are no assistants. School management will say: 'You're a teacher, so work'. But if</p>	<p>Some parents say they don't have time at all.</p> <p>I not only work with children but there have been cases when I worked with my parents and educated them.</p> <p>Hyperactive children with reduced attentiveness need the assistant.</p> <p>Without an assistant, working with the whole class can be difficult because you need to pay attention to everyone.</p> <p>I need an assistant, but there are no assistants.</p>	<p>Role of assistant</p>
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<p>there is a child in the classroom with low attention, inclusive, and still hyperactive, it is very difficult for teachers. It will be right to deal with such children individually.</p> <p>How do students show their hyperactivity?</p> <p>- These children cannot sit, they scream, they interfere with those around them. If they see an interesting thing, they will want to take it. They can't sit and start walking during the lesson, they don't have the patience to sit longer.</p>	<p>I think that the school's management will most likely tell me to keep working on my own because there are no assistants.</p> <p>If there is a child in the classroom with low attention, inclusive, and still hyperactive, it is very difficult for teachers.</p> <p>These children cannot sit, they scream, they interfere with those around them. If they see an interesting thing, they will want to take it. They can't sit and start walking during the lesson, they don't have the patience to sit longer.</p>	
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