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**Linguistic Development Among Children With Electronic Screen
Syndrome :Case of Tlemcen City**

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Dedications

To the cherished love of my life, my mother, whose unwavering support and trust have been the cornerstone of my success.

To my beloved father, whose guidance and presence have sculpted the person I am today. I owe all my successes.

To my dear brother, who has always been there to support me.

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Abstract

Childhood is universally recognized as a critical developmental stage for children worldwide. However, the pervasive integration of modern digital technology particularly electronic screens has introduced significant challenges to the child's development. Electronic screen syndrome is one of the newly identified disorders that have spread in this era. Along this line of thought, the present investigation aims at exploring the linguistic development among children with electronic screen syndrome and the challenges that were encountered by them. To reach this end, a case study research was conducted in Dr. Tidjani Damerrdji university hospital center, Kiffan center and a private speech therapy clinic (Tlemcen), relying on a number of sources and research instruments for data collection. Both psychologists and speech therapists were asked to answer two different questionnaires and structured interviews. The data collected from these research instruments were analyzed quantitatively and qualitatively. The triangulation of results revealed that children with electronic screen syndrome faced challenges in language development, delayed in speech and linguistic deficits. On the other hand, the social communication patterns of these children were affected by repetitive behaviors and decreased in non verbal communication, however, early intervention programs play crucial role in supporting the linguistic needs of these children. This work aims at providing comprehensive insights into the pivotal interplay between digital technology and early childhood development. It provides a detailed description of the linguistic challenges encountered by children with electronic screen syndrome.

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List of Acronyms and Abbreviations

LAD: Language Acquisition Device

ASD: Autistic Syndrome Disorder

ESS: Electronic Screen Syndrome

SLT: Speech Language Therapist

GENERAL INTRODUCTION

General Introduction

Childhood is the wonderful period of life. The child grows and discovers the world. In fact, healthcare professionals have worked to preserve this pivotal stage. However, in recent years, the world has witnessed the prevalent emergence of a new disorder, dysregulation condition affecting social communication, interaction, behavior and language. In this respect, many researchers have contributed to understand the nature of this phenomenon. One of the most significant reasons is the expose of children aged six months to more to television screen, smart phones, tablet and other electronic devices for long hours coupled with parental inattentiveness, this factors stand out as pivotal contributor to the rise of this disorder. The latter is known as Electronic Screen Syndrome, also known as ESS.

Within this context, Algeria is one of the countries where these unique case of children have become a subject of interest for both psychologists and speech language therapists. As a matter of fact, the behaviors of this syndrome have a substantial impact on children's language development and social communication crucial aspects during the sensitive stage of child development. Thus, understanding these conditions and recognizing that the discovery of the syndrome leads to the discovery of the cure is important for identifying the appropriate remedy.

Thus, this research is an attempt to explore and describe the extent to which specialists meet the linguistic development of children with electronic screen syndrome. In other words, this work could contribute to the current special pedagogical reform by setting three goals. First; it aims to investigate the linguistic challenges encountered by children with electronic screen syndrome. In addition, it seeks to explore how the communication patterns are affected within this specific group. On the basis of that investigation, the study intends to discern valuable insights into the effective strategies by psychologists and speech therapists for supporting the linguistic development of these children.

Consequently, it strives to answer the following questions:

1. What are the linguistic challenges among children with electronic screen syndrome?
2. How are the social communication patterns among children with electronic screen syndrome affected?
3. How is the role of speech therapists and psychologists in supporting the linguistic development of children with electronic screen syndrome?

The above mentioned questions led to formulate three hypotheses:

H1: Children with electronic screen syndrome face delays in language development such as, challenges in vocabulary expansion and constructing grammatically correct sentences.

H2: The social communication patterns among children with electronic screen syndrome are affected by repetitive behaviors and decreased in non verbal communication.

H3: Early intervention programs adress the linguistic challenges of electronic screen syndrome's children.It aims at enhancing their communication skills and linguistic development.

In fact ,for the sake of verifying the hypotheses mentioned above ,the researcher designed an exploratory descriptive case study research dealing with multiple locations in Tlemcen (Dr. Tidjani Damerrdji hospital center,Kiffane center and a private speech language therapy clinic in Rhiba).This case study will collect qualitative and quantitative data from different sources relying on a set of research instruments ,a questionnaire for speech language therapists ,a second one for psychologists ,and a structured interview for psychologists ,another one for speech language therapists .

Results are analyzed and triangulated on the basis of mixed approach combining qualitative and quantitative methods.

The present work is purposefully divided into two chapters .The first one reviews a relevant literature on normal and electronic screen syndrome linguistic development in children providing theories and definitions .

Whereas, the second chapter is concerned with the practical part of the conducted research. It deals with the research design and methodology through a detailed description of data collection ,the setting ,the sample and the research instruments ,In addition to the analysis and the discussion of the collected data .Furthermore ,it seeks to answer the research questions by confirming or disconfirming the research hypotheses ,and then conclude with the research results. Finally, some suggestions and recommendations to promote the linguistic development among children with electronic screen syndrome are provided.

Chapter One: Literature Review

1.1 Introduction

This chapter represents a theoretical framework of the study. First, it will introduce the concept of language by providing definitions. Then, it will shed light on different theories on language development among normal children. After that, a brief overview about Autism including its definitions and characteristics will be provided. Moreover, it will discuss the concept of electronic screen syndrome through definitions, characteristics and linguistic behaviors.

1.2 Language

Language is one of the fascinating elements of the human kind. In fact, throughout history, language has remained a subject of interest among many philosophers and linguists. Each has their one view but they all agree on the basic meaning.

In this regard, Sapir (1921) defines language as “a purely human and non instinctive method of communicating ideas, emotions and desires by means of voluntarily produce symbols” (cited in Lyons, 1981, p.3). Similarly, Bloch and Trager (1942, as cited in Lyons, 1981) define language as “a system of arbitrary vocal symbols by means of which a social group operates” (p.4). Meanwhile, Hall (1968) states “language is the institution whereby humans communicate and interact with each other by means of habitually used oral auditory symbols”. (cited in Lyons, 1981, p.4).

To sum up, according to the aforementioned definitions, Language is unique to human beings through which they can communicate and share their thoughts, feelings and desires.

1.3 Language Development Among Normal Children

Language development is one of the most important stages in human's life. It is the process through which a child acquires language, engages in communication and fosters interaction despite of its inherent complexities.

1.3.1 Stages of Language Development

Language acquisition is a critical aspect of every child's life, involving six stages: pre-talking stage/cooing, the babbling stage, the holophrastic stage, the telegraphic stage, and multi word stage.

1.3.1.2 Pre –Talking Stage /Cooing

This is the first stage of development. From birth to approximately six months. According to Bolinger (2002, as cited in Hatauruk, 2015) pre-talking stage or cooing is:

“The vowel-like sound responding to human sounds more definitely turns Head, eyes seem to search for speaker occasionally some chuckling sounds. For example, Miles (at the age of 4 months) demonstrating the cooing stage of language acquisition. He is producing vowel-like sounds (especially, the back vowels u and o in the sounds of “oh “,”uh”, and “ah’ typical of “cooing”. He still finds difficulties in producing the vowel sound i except when he is screaming in “hiii”. Moreover in producing the consonant sounds like b, p or m, she is not able to produce them yet”. (p.54).

1.3.1.3 Babbling Stage

During the second stage of language development children aged from six months to eight months start babbling. According to Steinberg (2003, as cited in Hatauruk, 2015): “babbling is the sounds which are produced by infants but not all the speech sounds are same in language of the world such as ma-ma-ma or da-da-da and ba-ba-ba or na-na-na.” (p.54).

1.3.1.4 Holophrastic Stage

Holophrastic stage is one of the most important stages that a child goes through. In fact ,it occurs from 9 months to 18 months .In this respect,Fromkin(1983) defined holophrastic from holo “complete” or “undivided” plus “ phrase “ or “sentence». So holophrastic is the children’s first single word which represent to a sentence. Children using one word to express particular emotional state. For example, Debby’s mother recorded the words she had pronounced during the 8 months after the appearance of her first word at 9 months(this was adi ,used both for her” daddy”) during the two weeks from 17 months -17 months and a half ,she more than doubled her vocabulary .(cited in hatauruk,2015,p.54).

1.3.1.5 Telegraphic stage

In the telegraphic stage, children aged from 24 months to 30 months start producing and forming new sentences .According to Fromkin (1983, as cited in hatauruk, 2015): “when the child begins to produce utterances that ere longer than two words, these utterances appear to be “sentence-like”, they have hierarchical, constituent structures similar to syntactic structures found in the sentences produced by adult grammar.”(p.55).

1.3.1.6 Multi Word Stage

After the telegraphic stage ,the final stage of language development is multi word stage.According to Bolinger(2002, as cited in hatauruk,2015):”at this stage is fastest increase in vocabulary with many new additions everyday; no babbling at all; utterances have communicative intent.There is a great variation among children, seems to understand everything said within hearing and directed to them.(p.55).

1.3.2. Language And Speech Development Milestones

Table .1.1 Milestones related to speech and language (National Institute Of Health, cited in Standford Medicine Children’s Health,2024).

	Milestones related to speech and language
Birth to 5 months	<ul style="list-style-type: none"> • Reacts to loud sounds • Turns head toward a sound source • Watches your face when you speak • Vocalizes pleasure and displeasure sounds (laughs,giggles,cries,orfusses • Makes noise when talked to
6-11 months	<ul style="list-style-type: none"> • Understands “no-no” • Babbles (says “ba-ba-ba” or ma-ma-ma”) • Tries to communicate by actions or gestures • Tries to repeat your sounds
12-17 months	<ul style="list-style-type: none"> • Attends to a book or toy for about two minutes • Follows simple directions accompanied by gestures • Answers simple questions nonverbally • Points to objects ,pictures, and family members • Says two to three words to label a person or object (pronunciation may not be clear) • Tries to imitate simple words
18-23 months	<ul style="list-style-type: none"> • Enjoys being read to • Follows simple commands without gestures • Points to simple body parts such as “nose” • Understands simple verbs such as “eat», «sleep” • Correctly pronounces most vowels and n,m,p,h especially in the beginning of syllables and short words .Also begins to use other speech sounds • Says8to 10 words (pronunciation may still be unclear) • Asks for common foods by name • Makes animal sounds such as “moo” • Starting to combine words such as “more milk” • Begins to use pronouns such as “mine”
2-3 years	<ul style="list-style-type: none"> • Knows about 50 words at 24 months • Knows some spatial concepts such as “in», «on” • Knows descriptive words such as “big», «happy” • Says around 40 words at 24 months • Speech is becoming more accurate but may still leave off ending sounds • Strangers may not be able to understand much of what is said • Answers simple questions • Begins to use more pronouns such as “you», «I”

	<ul style="list-style-type: none"> • Speaks in two to three word phrases ¹ • Uses question inflection to ask for something (e.g., «My ball?») • Begins use plurals such as “shoes” or “socks” and regular past tense verbs such as “jumped”
3-4 years	<ul style="list-style-type: none"> • Groups objects such as foods, clothes, etc. • Identifies colors • Uses most speech sounds but may distort some of the more difficult sounds such as l, r, s, sh, ch, y, v, z, th. These sounds may not be fully mastered until age 7 or 8 • Uses consonants in the beginning, middle, and ends of words. Some of the more difficult consonants may be distorted, but attempts to say them. • Strangers are able to understand much of what is said • Able to describe the use of objects such as “fork”, “car”, etc. • Has fun with language; enjoys poems and recognizes language absurdities such as, «Is that an elephant on your head?» • Expresses ideas and feelings rather than talking about the world around him or her • Uses verbs that end in “ing” such as “walking”, “talking” • Answers simple questions such as «What do you do when you are hungry?» • Repeats sentences
4-5 years	<ul style="list-style-type: none"> • Understands spatial concepts such as “behind», «next to” • Understands complex questions • Speech is understandable but makes mistakes pronouncing long, difficult, or complex words such as “hippopotamus” • Says about 200-300 different words • Uses some irregular past tense verbs such as “ran, «fell” • Describes how to do things such as painting a picture • Defines words • Lists items that belong in a category such as animals, vehicles, etc. • Answers “why” questions
5 years	<ul style="list-style-type: none"> • Understands more than 2,000 words • Understands time sequences (what happened first, second, third, etc.) • Carries out a series of three directions • Understands rhyming • Engages in conversation • Sentences can be 8 or more words in length • Uses compound and complex sentences • Describes objects • Uses imagination to create stories

¹ Stanford medicine children’s health <http://www.stanfordchildren.org/en/to pic/ default ?id=age-appropriate-speech-and language-milestones-90-p02170>.

1.3.2 Theories of Language Development

Language development has been a subject of interest for many philosophers and linguists and thus lead to the emergence of different schools of thought, among them are; behaviorism ,innateness ,cognitive and sociocultural school of thought .each one has brought and forth new theories.

1.3.3.1 Behaviorism Theory

Behaviorism, also known as behavioral psychology, is one of the most influential theories that emerged in the early 19th century. In fact ,behaviorists such as B.F Skinner and his colleagues believed that acquiring a language is a process of operant conditioning. Simply put , it's about the consequences of repeated actions which they observed in experiences with animals like rats and dogs ,through what they call positive and negative reinforcement, as pointed out in Skinner(1957,p.62):

“Any operant,verbal or otherwise,acquires strength and continues to be maintained in strength when responses are frequently followed by the event called “reinforcement the process of “operant conditioning “is most conspicuous when verbal behavior is first acquired. The parents up a repertoire of responses in the child by reinforcing many instances of a response.”

Indeed, Skinner suggested that a child acquires a language through the process of reinforcement. The latter involves both positive reinforcement where desired behaviors are rewarded by parents,Whereas,negative reinforcement where undesirable behaviors are punished.Hence,parents play a crucial role in shaping a child language development through these mechanisms.

1.3.3.2 Innateness Theory

As a reaction to Skinner's behaviorist theory, Noam Chomsky, one of the prominent American leaders argued that the idea of acquiring a language through imitation and reinforcement is insufficient. Instead ,he said that all human beings have an innate capacity that enable them to acquire a language. The latter called language acquisition device (LAD),In other words, a child is born with this device that enable him to acquire the complexities of language in such a short period of

time. Later on, he developed it to the concept of “universal grammar”(UG),According to JohnQ public(2007 cited in El Ouchdi ,2022):

“Chomsky believes the structure of language is determined by an innate, autonomous formal system of rules ,this formal system of rules .called universal grammar(UG),is inherent within the human brain at birth and is largely devoid of any association with meaning. This UG is also independent of other human cognitive faculties, i, e, it operates on its own within the brain ,independent of any other non –linguistic cognitive process”.(p.88).

1.3.3.3 Cognitive Theory

This theory is regarded as one of the fundamental theories which attributed to the Swiss psychologist Jean Piaget. Indeed ,he believed that the process of language acquisition goes through different stages,Piaget suggested that all children acquisition through the sensorimotor,preoperational and formal operations stages of development(Moreno,2010).Also, he believed that cognitive development is a continuous process and all children ,ever in different environment context and culture diversity around the world ,have the same sequence of cognitive development (Hockenbury&Hockenbury,2011).

1.3.3.4 Sociocultural Theory

In the realm of language acquisition ,Lev Vygotsky is one of the prominent figure known for his Sociocultural theory that emphasizes the role of social interaction as well as culture in language development.Vygotsky(1981,as cited in Foley & Thompson ,2003;Mehrpour&Forutan,2015)summarizes his socio-cultural theory as: “Any theory in the child’s cultural development appears twice or on two planes First, it appears on the social plane, and then on the psychological plane.First,it appears between people as interpsychological category, and then within the Child as an intra psychological category.This is uniformly accurate with Regard to voluntary attention, logical memory, the formation of concepts,andThe development of volition. He believes that language grows completely From social interaction,

and children are only able to develop to an advanced Level of knowledge only via employing a helpful interactive environment.” (p.36).

1.4.Autism

From the early 20th century ,humankind has witnessed several phenomena .Some of them are known since ancient time such as “Cholera”(1).However, there are also others which become widespread in the current era, The latter namely Autism has been and continues to be the subject of extensive study and continuous debate.

1.4.1. Definition¹

According to the American psychological association the term “Autism” was first coined by the Swiss psychiatrist Paul Eugen Bleuler in 1912.Indeed, autism was first described by Leo Kanner(1943) as:”a developmental disease present from birth in which reciprocal social behavior, language and communication are impaired and patients display restricted interests and repetitive behaviors”.(cited in Zimmerman,2008,p.4).

Meanwhile NICHY (2010 cited in IDEA, 2004; Carol&Viki, 2011) defines autism as:

“ A developmental disability significantly affecting verbal and non verbal
Communication and social interaction,generally evident before age three
That adversely affects a child’s educational performance.Other characteristics
Often associated with autism are engagement in repetitive activities and
Stereotyped movements,resistance to environmental change or change
In daily routines,and unusual responses to sensory experience”(p.14).

Simply put ,according to the aforementioned definitions, Autism is a neurodevelopmental disability that occurs within the first three years of life where the child’s social communication and interaction are affected.

¹ Chollera is a bacterial disease usually spread through contaminated water.It causes severe diarrhea and dehydration.

1.4.2 Characteristics of Autism

Table.2.2 Criteria for Diagnosis of Autism (DSM-5).(cited in Joon et al ,2021,p.4).

Social communication and interaction domain	Repetitive and restrictive behavior domain
<p>1.Deficits in social emotional reciprocity Abnormality in social approach Failure in normal back and forth conversation Decreased sharing of interests, emotions ,affect and response Total lack of initiation of social interaction</p> <p>2.Deficits in non verbal communicative behaviors Poorly integrated verbal and non verbal communication Abnormal eye contact and body-language Difficulty in understanding and use of non verbal communication Complete absence of facial expression or gestures</p> <p>3.Deficits in developing and maintaining relationships Difficulty making friends Apparent absence of interest in people Difficulties adjusting behavior to suit different situations</p>	<p>1.Streotyped or repetitive speech, motor movements or use of objects Simple motor stereotypes Echolalia Repetitive use of objects Idiosyncratic phrases</p> <p>2.Excessive adherence to routines, ritualized patterns of behavior Excessive resistance to change such as motor ritual Insistence on same route or food Repetitive questioning or extreme distress at small changes</p> <p>3.Highly limited,fixed interests which are abnormal in intensity or focus Strong attachment to and/or preoccupation with strange objects. Excessively limited or conservative interests</p> <p>4.Hyper-or hypo-reactivity to sensory input Unusual curiosity in sensory aspects of environment Apparent indifference to heat/pain/cold Adverse response to particular sounds or textures. Excessive smelling or touching of objects Fascination with lights or spinning objects</p>

1.5 Electronic Screen Syndrome

One of the worldwide phenomena currently is the widespread use of electronic screens across all ages. In fact, the excessive use of electronic screens has given rise to new syndrome namely Electronic Screen Syndrome or ESS.

1.5.1 Definition

Like many other syndromes, The term 'Electronic Screen Syndrome' or ESS was first introduced by D.R Victoria Dunkley in her book "Reset your child's Brain" in 2015. In this vein, Dunkley (2015) defines electronic screen syndrome as: "ESS is essentially a disorder of dysregulation. Because it's so stimulating, interactive screen-time shifts the nervous system into fight-or-flight mode, which leads to dysregulation and disorganization of various biological systems." (p.16).

Meanwhile, electronic screen syndrome is "the inability to adjust one's mood, attention or degree of arousal due to engaging with screen gadgets over-stimulates the youngster and puts the nervous system into fight-or-flight mode, resulting in electronic screen syndrome (ESS). The response can be more subtle, as in texting repeatedly, or rapid, as in action games" (Hall, 2020).

1.5.2 Characteristics

In this investigation, Dunkley (2015, p.17) notices that the child exhibits symptoms related to mood, anxiety, cognition, behavior, or social interaction due to hyperarousal (an overly aroused nervous system) that cause significant dysfunction in school, at home, or with peers. Typical signs and symptoms mimic chronic stress or sleep deprivation and can include irritable, depressed, or rapidly changing moods, excessive or age-inappropriate tantrums, low frustration tolerance, poor self-regulation, disorganized behavior, oppositional-defiant behaviors, poor sportsmanship, social immaturity, poor eye contact, insomnia/non-restorative sleep, learning difficulties and poor short-term memory. Tics, stuttering, hallucinations, and subtle or overt seizure activity may also occur, irritability and poor executive functioning occur in most cases and are hallmarks of the disorder.

1.5.3 Behaviors

A behavior is any action that a person performs. In fact, children with electronic screen syndrome have different behaviors that distinguish them from the others. First of all, a child with ESS has difficulties in social communication and interaction, in addition to emotional mood dysregulation which is characterized by

“poor frustration tolerance ,tearfulness and mood swings” (Dunkley,2015, p .49) Irritability and attention difficulties ,depression and isolation,Moreover,among the serious behaviors is violent aggression and delinquency ,Obviously, one of the clear consequences of excessive screen time alongside with repetitive behaviors such as” repetitive movements in child’s hands and arms that seemed to have no purpose”.(Dunkley ,2015,p.92).

1.5.4 Linguistic Behaviors

Excessive screen time indeed has a broad impact not only on child’s social communication patterns but also on his language development including language skills , social interaction and verbal communication. In this study, Dunkley(2015) observes that children with electronic screen syndrome express delays in speech which can lead to the increase of other issues such as short term memory and lack of attention. Overtime, these can result delayed in language.Then, excessive screen time affects child’s expressive language skills and thus present poor communication and interaction.Undoubtly, electronic screens impact non verbal aspects of language such as lack of facial expressions, particularly, poor eye contact that plays an important role in understanding and reading the social cues. In this respect, Dunkley (2015, p.85) states that eye contact is “an essential part of the bonding process from birth onward. It reflects our capacity for intimacy, and inability to tolerate sustained eye contact often translates to shallow relationships”.

1.6. Conclusion

To sum up, electronic screen syndrome is one of the new phenomena that emerged recently, particularly, due to the widespread use of modern technologies.This chapter attempted to provide a detailed description about language development among normal children through definitions ,stages ,milestones and theories of child first language acquisition,Then,she delved into the concept of autism by providing definitions and characteristics.Furthermore,the study investigated the newly discovered disorder electronic screen syndrome, where the researcher provided a detailed exploration, of its definition, characteristics and behaviors. Hence, the main

goal of this study is to raise awareness of the significant impact of screen time on children.

**CHAPTER TWO:
DATA
COLLECTION
,ANALYSIS AND
INTERPRETATION
OF THE RESULTS**

2.1 Introduction:

This chapter is divided in two sections, the former provides a detailed description of the research design, the sample population, the setting and the instruments of the study .Then ,the latter involves the results and the discussion of the data obtained from two different tools used. Finally ,some suggestions and recommendations are provided by the researcher to promote.

2.2 Section one: Description of the research design

This section is intended to provide a detailed description of the research design used in this study. Moreover, it describes the sample population, the setting and research instruments that are used to collect and analyze data.

2.2.1 Research Design

The research design is the initial step in conducting any research ,involving meticulous planning .MacMillan and Schumacher(2001:166)define it as” a plan for selecting subjects ,research sites and data collection procedures to address the research questions”. Moreover, in this study an exploratory descriptive case study is designed to gain a better understanding of the research subject .Therefore,it employs a mixed method approach ,combining both qualitative and quantitative data for the purpose of enhancing the comprehensiveness and richness of the research findings.

2.2.2 Sample population

In this investigation, the selection of a good sample is paramount to ensure the validity and generalizability of the research findings. To do so ,the researcher selects a sample at random ,It consists of 34 specialists;20 psychologists .14 speech language therapists for the purpose of enriching the study with diverse perspectives .Purposive sampling is also used.

2.2.3 Setting

The present study takes place at multiple locations namely ;Dr. Tidjani Damerrdji University Hospital Center in Tlemcen. Kiffan Center and a private speech language therapy clinic in Rhiba(Tlemcen) .

2.2.4 Research instruments

To carry out this research effectively and ensure a comprehensive data collection ,two different research tools are used by the researcher. In fact ,two different questionnaires and interviews are designed for psychologists and speech language therapists.

2.2.4. The questionnaire

The questionnaire stands as one of the essential research tools for gathering information from participants .It consists of a set of written questions designed to collect data .It includes three types of questions :close ended ,open ended and multiple choice questions. Close ended questions require respondents to choose between yes or no answers. In contrast ,multiple choice questions ask the respondents to select one or more answers from a list of options .These types of questions provide quantitative data ,are answered quickly and are easy to analyze. On the other hand, open ended questions require respondents to provide detailed answers ,leading to qualitative data .While they offer rich insights ,open ended questions take longer to answer and are more challenging to analyze compared to multiple choice.

2.2.4.1 Questionnaire For Psychologists

This questionnaire is distributed to 20 psychologists from multiple locations in Tlemcen to gather reliable data. It consists of 12 questions organized in a logical order without being divided into sections. The questions include a mix of closed ended, multiple choice and open ended formats for the purpose of collecting both quantitative and qualitative data .Subsequently ,the questionnaire is translated into Arabic to make it more accessible and ensure that the respondents can easily understand and provide clear responses.

2.2.4.2 Questionnaire For Speech Language Therapists

This questionnaire is designed for 14 speech language therapists .It consist of 9 questions structured in a logical and organized order .This questionnaire includes three types of questions ;close ended ,multiple choice and open ended .Furthermore

,the questionnaire has been translated into Arabic to facilitate the process of data collection

2.2.5 Interview:

The interview is one of the crucial data collection techniques .It is defined as a purposeful conversation between an interviewer the researcher and interviewees the participants, structured to elicit information and insights related to a specific research topic .It is a qualitative research method used to gather rich, detailed data by exploring the interviewees experiences ,perspectives and opinions(Kvale,1996).

2.2.5.1 Interview with Psychologists

This interview is a structured interview which consists of nine questions, featuring a combination of closed ended and open ended questions .These questions are structured in a logical order to investigate the experiences of psychologists who work with children with electronic screen syndrome. In addition, the interview is translated to Arabic for the purpose of ensuring accessibility for participants. To put it simply, this interview aims to collect comprehensive insights into the challenges, successes and perspectives of psychologists in this field.

2.2.5.2 Interview with Speech Language Therapists

This interview is administered to speech language therapists ,It consists of eight questions .In fact, these questions are systematically organized in a logical sequence .It includes a mix of opened ended and closed ended questions. Furthermore, the questions have been translated into Arabic to facilitate the process to the participants.

2. 3. Section two: Results' analysis and Interpretation

2 .3 .1 Analysis of Psychologists' Questionnaire

Question 1: How many years have you been working as a psychologist?

Table 2 .1. Psychologists' Experience

Working experience	frequency	percentage
from 1 to 5 years	11	55%
from 5 to 10 years	6	30%
from 10 to 20 years	3	15%
Total	20	100%

As shown in the table above the majority of the respondents' work experience ranging from 1 to 5 years. Then, some of the respondents' work experience is between 5 to 10 years. The rest say that their work experience is between 10 to 20 years.

Question 2: How many children with electronic screen syndrome do you currently work with?

This question aims to have an idea about the number of children with ESS.

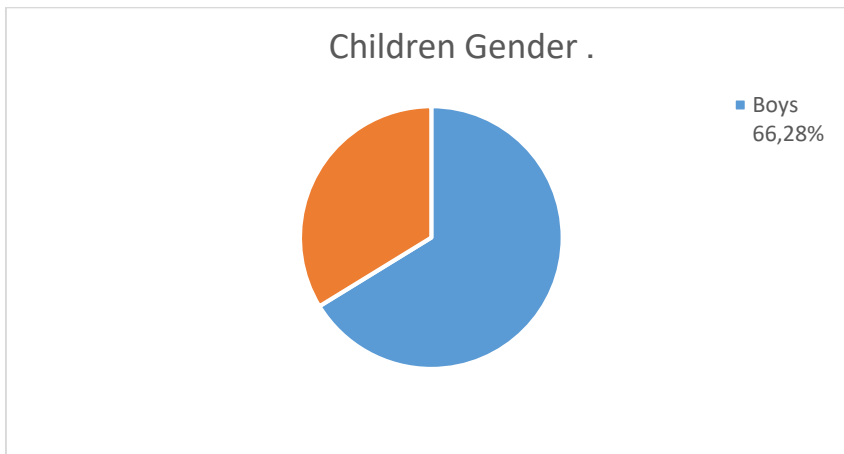
Table 2. 2. The Current Number of Children With ESS

Options	Frequency	Percentage
From 1 to 5 children	10	50%
From 6 to 10 children	4	20%
From 11 to 15 children	3	15%
From 16 to 20 children	3	15%
Total	20	100%

According to the table above, half of the respondents 50% report that they currently work with 1 to 5 children with electronic screen syndrome. Then, some of them 20% indicate that they work with 6 to 10 children with ESS. Interestingly, 15% of the respondents claim that they have 11 to 15 children. The rest state that they work with 16 to 20 ESS children.

Question 3: Can you provide statistics about gender distribution among these children?

The aim of this question is to have an idea about gender.



The results indicate that the dominant gender among children with electronic screen syndrome is boys, representing 66,28% whereas girls represent 33,72 %.

Question 4: When assessing the psychological well being of these children which autistic behaviors that are indicative?

The aim behind this question is to explore the autistic behaviors that are observed among children with ESS

Table 2 .3 .The Common Autistic Behaviors Among children with ESS

Options	Frequency	Percentage
Repetitive Behaviors	13	65%
Change in Sleep patterns	1	5%
Increased irritability	3	15%
All of the above	3	15%
Total	20	100%

The results indicate that 65%of the respondents state that repetitive behaviors are observed .Then, 15 %of the respondents indicate that increased irritability is observed as autistic behaviors among children with ESS.Some of them 15%indicate that all of the above are observed.

Question 5: Can you identify specific behavioral patterns commonly observed among children with electronic screen syndrome?

If yes what are they?

This question aims to gather information about the specific behavioral patterns that may impact their social communication

Table 2 .4. The impact of Behavioral Patterns On Social Communication

Options	Frequency	Percentage
Yes	20	100%
No	0	0%
Total	20	100%

The results show that all the psychologists ‘respond positively.

As a following up question , psychologists who answer with yes are asked to provide examples of these behavioral patterns which are summarized in the following points:

- Communication difficulties.
- Repetitive behaviors
- Sensory sensitivities
- Difficulties in social adaptation and building relationships.
- Sleep patterns and Fear
- Lack of responsiveness to external stimuli.
- Aggression and Isolation.

Question6: Have you noticed specific communication patterns that differentiate children with ESS from those with Autistic Syndrome Disorder (ASD) ?

This question seeks to determine whether psychologists differentiate between autistic children and those with ESS.

Table 2.5. The Specific Communication Patterns That Differentiate Between Autistic Children and Children with ESS

Options	Frequency	Percentage
Yes	17	85%
No	3	15%
Total	20	100%

The results indicate that 85% of the respondents answer with “yes” whereas the rest answer negatively which corresponds to 15%

Question7: How can you describe the social communicative skills of electronic screen syndrome children?

This question aims to gain better understanding of the social communicative skills of these children

Most of the respondents describe ESS’children as having limited social communication skills characterized by challenges in engaging with others and expressing themselves effectively. In addition, some of them mention that these children also demonstrate inclusivity such as improved play skills ,emotional skills and interactions with others. Whereas rest report that they have exceptional social communication skills ,specifically in educational and mathematical activities.

Question 8: To what extent do these children engage in verbal communication?

The aim behind this question is to determine the extent of verbal communication engagement displayed by these children.

Table 2. 6. Verbal Communication Engagement

Options	frequency	percentage
Rarely	10	50%
Occasionally	10	50%
Frequently	0	0%
Total	20	100%

According to the data depicted in the table, half of the respondents 50% reported that children with ESS exhibit rare engagement in verbal communication .Similarly, 50%of them indicate occasional engagement in verbal communication among these children. While no one report frequent engagement.

Question 9: From a psychological perspective, which behaviors do you often observe among children with electronic screen syndrome that may affect their social interactions?

This question aims to identify or know the common behaviors that may affect the social interaction of ESS children.

Table 2.7 .The Common Behaviors That Affect ESS Children’s Social

Interaction

Options	Frequency	Percentage
Difficulty in understanding social cues	6	30%
Emotionalregulation challenges	3	15%
Unusualsensoryresponses	2	10%
All of the above	9	45%
Total	20	100%

The results show that 45% of the psychologists indicate that all the three behaviors may affect the social interaction of ESS children. Then, some of them 30%report difficulty in understanding social cues. Therefore, 15% of the respondents say emotional regulation challenges. Lastly, the rest of psychologists indicate unusual sensory responses.

Question 10: Can you achieve results through your interventions as a psychologist in these cases to develop their social communication skills ?

The aim behind this question is to know the role of interventions in supporting the social communication skills

Table 2 .8.The Role of Interventions to Develop the Social Skills

Options	Frequency	Percentage
Yes	20	100%
No	0	0%
Total	20	100%

According to the findings shown above, all the respondents’ answer yes which corresponds to 100%

Question 11: How do you evaluate your role as a psychologist in the cases of these children?

Table 2 .9. Psychologists ‘Role

Options	frequency	percentage
Significant	14	70%
Moderate	4	20%
Minimal	2	10%
Total	20	100%

As shown in the table above, the majority of the respondents 70% assert significant role .Then,20%of them say moderate .The rest of the respondents 10 %indicate minimal role .

Question 12: Are there specific challenges you commonly face?

If yes, what are they?

The aim behind this question is to explore whether there are challenges faced by psychologists or not in dealing with ESS children

Table 2.10. The Common Challenges Faced by Psychologists

Options	Frequency	Percentage
Yes	20	100 %
No	0	0%
Total	20	100%

The results indicate that all the respondents affirm that they face specific challenges.

As an additional question, psychologists are asked to describe some of the challenges which are summarized in the following points:

- Communication challenges
- Lack of resources and facilities
- Integration into society
- Parent’s awareness and support
- Variability in symptom severity.
- Behavioral difficulties

2 3 2 Analysis of speech language therapists’ Questionnaire

Question 1: How many years have you been working as a speech language therapist ?

Table 2 .11. Speech Language Therapists’ Experience

Working experience	frequency	percentage
from 1 to 5 years	8	58%
from 5 to 10 years	3	21%
from 10 to 20 years	3	21%
Total	14	100%

As shown in the table above .The majority of the respondents’ work experience range from 1 to 5 years.

Question 2: How many children with electronic screen syndrome do you currently work with?

The objective of this question is to have an idea about the number of electronic screen syndrome’s children that SLT have worked with.

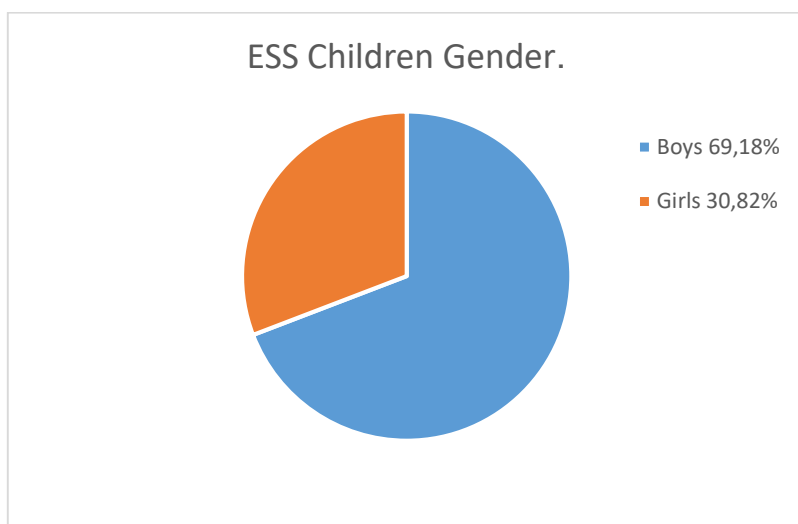
Table 2 .12 .The Current Number of Children With ESS

Options	Frequency	Percentage
From 1 to 5 children	6	42,86%
From 6 to10 children	5	35,71%
From 11 to 11 children	2	14,29%
From 16 to 20 children	1	7,14%
Total	14	100%

The results reveal that the majority of the respondents work with 1to 5 children with ESS.Then, The minority of the respondents work with a range of 16 to 20 children.

Question 3: Can you provide statistics about gender distribution among these children?

The aim of this question is to have an idea about ESS children’s gender.



The results indicate that the dominant gender among children with electronic screen syndrome is boys .representing 69,18 % whereas girls represent 30,82%

Question 4: Have you observed delays in language performance among children with ESS?

If yes, what are they?

This question aims to explore whether there are delays in language performance or not.

Table 2 .13. Delays in Language Performance

Options	Frequency	Percentage
Yes	12	86, %
No	2	42,2%
Total	20	100%

The results show that the majority of the participants answer with yes.

As a follow up question, speech language therapists who answer with yes are asked to provide specific aspects of language performance that are commonly affected .which are summarized in the following points:

- Linguistic deficit and absence of receptive language.
- Oral language comprehension
- Delays in speech
- Verbal expression
- Communicative aspect.

Question 5: How would you describe the social behavior of these children?

The objective behind this question is to explore the social behaviors of ESS children.

The respondents assert that the social behaviors among ESS children are characterized by isolation, communication challenges, introversion and and social interaction disorder.

Question 6: To what extent do these children engage in verbal communication?

The objective behind asking this question is to determine the extent of verbal communication engagement displayed by these children.

Table 2 .14. Verbal Communication Engagement

Options	frequency	percentage
Rarely	8	57,14%
Occasionally	6	43%
Frequently	0	0%
Total	14	100%

According to the table above. 8 of the respondents indicate rare engagement .Then 6 of them report occasional engagement .whereas no one indicate frequent engagement.

Question 7: Have you observed any notable patterns in non verbal communication among these children?

If yes, please provide examples

This question aims to explore whether SLT have observed specific patterns in non verbal communication.

Table 2.15.Attitude Towards Non Verbal Communication

Options	Frequency	Percentage
Yes	12	86, %
No	2	14,2%
Total	20	100%

According to the findings shown above, The majority of the respondents answer with “Yes”.

As a follow up question, speech language therapists who answer with yes are inquired to provide examples. Therefore, they mention a variety of examples which are summarized in the following points:

- Limited visual communication
- Gesturing and Pointing.
- Crying and Screaming.
- Isolation.
- Communication deficits

Question 8: When assessing the linguistic development of children with ESS which method do you find most effective?

This question seeks to explore the most effective method for these children.

Table 2 .16.The Effective Method

Options	Frequency	Percentage
Standardized assessments	0	0%
Observation in natural settings	2	14%
Parents 'reports	2	14%
Combination of the above	10	72%
Total	14	100%

The data in the table above indicate that most of the respondents indicate a combination of all the three method.

Question 9: How do you tailor interventions for children with electronic screen syndrome?

The objective behind this question is to gain insights about how therapy sessions are conducted

Table 2 .17 .Therapy Sessions for ESS’s Children

Options	Frequency	Percentage
Individualtherapy plans	6	43%
Group therapy sessions	3	21%
Parent training	0	0%
Combination of the above	5	36%
Total	14	100%

The most of SLT conduct individual therapy plans .some of them, tailor a combination of all. Whereas the minority of the respondents conduct group therapy sessions.

2.3.3Analysis of Psychologists’ Interview

Question 1: How many years of experience haveyou been working with children with electronic screen syndrome?

Table 2.18. Psychologists’ Working Experience with ESS’s Children

Psychologists	2	2	1
Working experience	6 years	2 years	9 years

Question2: In your experience, what specific behaviors have you observed in these children?

Table 2.19. Specific Behaviors Observed in Children with ESS

Psychologists	3	1	1
Specific behaviors	Difficulties in communication exemplified by reduced eye contact and limited responsiveness to external stimuli	Repetitive behaviors	Introverted behaviors alongside challenges in building social relationships

Question 3: How can you describe the emotional and social aspect of these children?

Table 2.20 .Emotional and Social Aspects 'Description

Psychologists	1	2	1	1
Emotional And Social Aspects	Materialistic orientation rather than moral	Challenges in emotional regulation	Smooth emotional and social response	Increased sensitivity of emotional aspects

Question 4: Do these aspects contribute to their linguistic skills?

All the respondents' answer affirmatively indicating that the emotional and social aspects indeed contribute significantly to their linguistic skills.

Question 5: Do you collaborate with speech language therapists or other specialists when addressing children with electronic screen syndrome?

In this question, all the psychologists agree on the importance of collaborating with speech language therapists, along with other specialists such as educational professionals and caregivers .

Question 6: Do you collaborate with parents?

Table 2. 21. Parents' Collaboration

Yes	No
2	3

Question7: How do ESS ‘behaviors impact children’s families?

All the respondents indicate that these behaviors have a negative impact on their families.

Question 8: Can you provide effective strategies to aid parents with their children?

In this question, all the psychologists answer affirmatively, but their responses vary in details .In fact, 3 psychologists suggest that parents should limit screen time and increase communication with their children .Another respondent suggest to provide suitable conditions and raise awareness .Furthermore, one psychologist proposes to integrate children socially such as kindergarten .

Question 9: Can you share a success story?

In this question, the majority of the respondents share success stories .They indicate that the symptoms and reasons are the same .but there is variability in symptoms’ severity and its impact on children. Nevertheless, they integrate to the external environment and attend schools within a short period of time.

2.3.4 Analysis of Speech Language Therapists’ Interview

Question 1: How many years of experience you have been working with children with electronic screen syndrome?

Table 2.22. Speech Language Therapists’ Working Experience ESS’s

Children

Speech therapists	1	2	1
Working experience	12 years	3 years	1 years

Question 2: Do you have specific cases that encounter unique linguistic challenges?

The majority of the respondents affirm that they have specific cases that pose unique linguistic challenges

Question 3: Can you provide some linguistic challenges ?

Table 2.23.Linguistic Challenges

Speech therapists	2	1	2
Linguistic challenges	Delayed in speech and communication difficulties	Difficulties in verbal expression and engaging in conversation with others	Lack of response to verbal instructions and deficiency in language productivity

Question 4: What are the techniques that you used to address their linguistic needs?

Table 2.24. Techniques Used to Address The Linguistic Needs

Speech therapists	1	1	2	1
Techniques	Symbolic activities	Pointing to different objects	Sequence of events and picture prompts	Storytelling and pointing to objects

Question 5: Do you collaborate with psychologists or other specialists when addressing children with electronic screen syndrome?

In this question, all the speech language therapists affirm that they collaborate with psychologists along with other specialists such as assistant professors and caregivers.

Question 6: Do you collaborate with parents?

All the respondents agree on the idea of collaborating with parents as essential in the treatment stage.

Question 7:Can you provide effective strategies to aid parents with their children?

In this question, all the speech language therapists answer affirmatively, but their responses vary in details .2 SLT suggest to limit screen time. Moreover, one

interviewee suggests to avoid neglecting their children. Then, 2 SLT suggest that parents should be mindful and reduce all the electronic screens.

Question 8: Can you share a success story ?

In this question, the majority of SLT share success stories; In fact, they indicate that children with electronic screen syndrome have limited symptoms, through therapeutic interventions and parental awareness they successfully integrate to society.

2.3.5 Data Interpretation

This section aims to discuss the gathered data from psychologists and speech language therapists' questionnaire and interview to answer the research questions by confirming or disconfirming the research hypotheses.

Regarding the first hypothesis which stipulates that children with electronic screen syndrome face delays in language development such as; challenges in vocabulary expansion and constructing grammatically correct sentences. The collected data from speech language therapists ' questionnaires revealed that the majority of the SLT agree on the idea that they face delays in speech and other aspects such as linguistic deficit ,absence of productive and receptive language. Thus, the results of the gathered data confirm the first hypothesis.

Concerning the second hypothesis which denied that the social communication patterns among children with ESS are affected by repetitive behaviors and decreased in non verbal communication .The questionnaire addressed to psychologists showed that these children 'social communication patterns are affected by repetitive behaviors such as movement and difficulties in communication including lack of responsiveness to external stimuli ,difficulties in understanding social cues, sensory sensitiveness. In addition lack of eye contact and the use of gesturing and pointing.

Regarding the third research question, How is the role of speech therapists and psychologists in supporting the linguistic development in these children The researcher proposed that early intervention programs address the linguistic

challenges of ESS's children. It aims to enhance their communication skills and linguistic development. The findings obtained from both psychologists and SLT questionnaire and interview confirm the validity of this hypothesis. The data revealed that the majority of the respondents have significant role indicating a strong belief in the importance of their role in addressing the linguistic needs of these children, Although they face several challenges including parents' acceptance and support, lack of resources and facilities, communication challenges but they successfully within a short period of time integrate them to society.

To sum up, the results obtained from psychologists and speech therapists questionnaire and interview have shown that these cases of children are on the rise. In fact, raising awareness among parents and caring for this sensitive category is essential. Whereas neglecting them may lead to further development to Autism and thus, avoiding electronic screen usage and providing specialized centers with early intervention, a difference can be made.

2.5 Limitations:

The present study faced several limitations. First, there was only 14 speech language therapists. Thus, the sample was limited and small. In addition, the unavailability of resources article, books...etc. that tackle the challenges of electronic screen syndrome's children makes a little bit hard to provide sufficient information. Then, some respondents have provided very short answers to questions that are supposed to be answered in long paragraphs.

2.6 Suggestions and Recommendations:

Based on the results and the conclusions of the study, the following recommendations and suggestions are offered:

- Childhood is a crucial stage when a child grows up, develops language and adopts new behaviors through imitations. In fact, it is essential to raise awareness about this syndrome and thus can be done through television programs and social media platforms.

- It is important to create awareness this issue and encourage parents to be more supportive and mindful, In other words ,to guide their children away from screens that pose significant risks.Also,to promote awareness on this front call for regular check-ups with psychologists and speech language therapists.

-Although speech language therapists and psychologists play crucial role, they are often overlooked in societies .Therefore, it is critical to raise awareness about their importance and express gratitude towards and of course other specialists who tirelessly work to facilitate children’s treatment despite the hurdles and challenges .

-Moreover, it is essential to establish specialized centers and resources for children with ESS to make sure that they receive the appropriate care and condition.

-Further investigation should look at the factors that contribute to the widespread of this syndrome. In fact, understanding these factors could develop effective solutions to reduce the harmful effects of excessive screen time on children’s development process.

2.7 Conclusion

This chapter represented the practical phase of the research. It addressed the linguistic development among children with electronic screen syndrome in Algeria, particularly in Tlemcen .It aims to provide a comprehensive overview of the research through describing the research design, target population, the setting and the research instruments.Furthermore,the data obtained from psychologists and speech therapists’ questionnaire and interview were analyzed quantitatively and qualitatively using tables and figures for the purpose of enhancing the comprehensiveness and richness of the research findings.

GENERAL CONCLUSION

General Conclusion

Over the past few decades, humanity has witnessed changes in several domains including social, economic and health domains. Indeed, these shifts are primarily attributed to the rapid spread of technology which has profoundly impacted human life. Initially, there existed an optimistic outlook regarding technological advancement, However, what was hidden is greater, In fact, technology, despite of its positives ,it has drawbacks that can not be ignored. The latter has contributed to the emergence of a new variable into health equation. In other words, the excessive use of electronic screens has opened the door to new syndrome namely, Electronic Screen Syndrome, particularly, affecting children's social communication, behavior, language and interaction.

Therefore, this piece of research was divided into two chapters; the first one is intended to review the literature and obtained theoretical aspects, through definitions, characteristics, theories and illustrations. The second chapter gave a bird's eye view on Algerian situation related to electronic screen syndrome and its impact on children in Tlemcen, In addition to the situation analysis, necessary data were collected and then analyzed, finally, some suggestions and recommendations are provided by the researcher.

Through designing and conducting an exploratory descriptive case study, and after the analysis and triangulation of data gathered from different sources using a set of research instruments(a questionnaire for psychologists, a questionnaire for speech language therapists, a structured interview for psychologists, another structured interview for speech language therapists),the three hypotheses put forward were confirmed. The results revealed that children with electronic screen syndrome face delays in language development ,such as linguistic deficits ,absence of productive and receptive language (the first hypothesis was confirmed).On the other hand, the social communication patterns of children with electronic screen syndrome are affected by repetitive behaviors and decreased in non verbal communication(the second hypothesis was confirmed).Indeed, the results showed that early intervention by both psychologists and speech language therapists play a

crucial role in supporting the linguistic development of children with electronic screen syndrome ,aiming to enhance their communication skills and language development(the third hypothesis was confirmed).

As a matter of fact, this study revealed interesting results .First, electronic screen syndrome is a new condition that increasingly prevalent, especially in this era. In addition, children are the primary victims of this syndrome, exhibiting notable effects on their language development, communication skills and social interaction. Moreover, it shed light on the critical consequences of excessive screen time, emphasizing the significant need for heightened awareness and early intervention programs led by specialists such as psychologists and speech language therapists to address the impact of this syndrome.

Furthermore, the conducted research encountered several limitations. One of the major limitations is that the sample size was not big and thus, the results may not be representative of the larger population .Therefore, the researcher encountered limited time frame.

In short, one might say that electronic screen syndrome is one of the widespread phenomena that reached Algeria in the last decade ,In fact ,currently children worldwide spend more time with electronic screens, these screens may seem as a means of entertainment or a way to have a wonderful childhood ,but unfortunately ,it is the beginning of hidden effects that result in future issues.

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APPENDICES

Appendix A

Psychologists' Questionnaire (Arabic Version)

استبيان خاص بالأخصائيين النفسانيين

شكرا لمشاركتكم في هذا البحث حول التطور اللغوي بين الأطفال ذوي متلازمة الشاشات الالكترونية تحليلاتك القيمة ستساهم في فهم أفضل لاحتياجاتهم وتجاربهم الفريدة يرجى منكم الإجابة على هذا الاستبيان شكرا لتعاونك

1. كم عدد السنوات التي عملت فيها كأخصائي نفسي؟

5-1

10-5

20-10

2. كم عدد أطفال الشاشة الذين تعمل معهم حاليا؟

5-1

10-6

20-10

3. هل يمكنك إعطائي إحصائيات حول نسبة الذكور والإناث بين هؤلاء الأطفال؟

الذكور

الإناث

4. عند تقييم الصحة النفسية لهؤلاء الأطفال ماهي السلوكيات التوحدية الدالة على ذلك؟

السلوكيات التكرارية

تغيرات في أنماط النوم

زيادة في التهيج

كل ما تم ذكره أعلاه

5 هل يمكنك التعرف على أنماط السلوك المحددة الملحوظة بين أطفال الشاشة ؟

نعم

لا

إذا كانت الإجابة نعم يرجى إعطاء أمثلة

.....
.....
.....

هل يوجد تواصل لهؤلاء الأطفال بنسبة مختلفة عن الأطفال المصابين باضطراب التوحد ؟

نعم

لا

7-كيف تصف مهارات التواصل الاجتماعي لدى أطفال الشاشة ؟

.....
.....
.....

8-إلى أي مدى يشارك هؤلاء الأطفال في التواصل اللفظي ؟

نادرا

بين الحين والآخر

بشكل متكرر

9.من منظور نفسي أي السلوكيات التي تحدث بشكل متكرر بين هؤلاء الأطفال وتؤثر على تفاعلاتهم الاجتماعي ؟

صعوبة في فهم الإيماءات الاجتماعية

تحديات في تنظيم العواطف

استجابة حسية غير عادية

كل ما تم ذكره أعلاه

10. هل يمكنك الوصول إلى نتيجة جراء تدخلك كطبيب نفسي في تلك الحالات لتطوير المهارات الاجتماعية لهؤلاء الأطفال؟

نعم

لا

11. كيف تقيم دورك كطبيب نفسي في حالات هؤلاء الأطفال؟

دور كبير

دور متوسط

دور ضئيل

لا ينطبق

12. هل هناك معيقات وصعوبات للتعامل مع هذه الفئة؟

نعم

لا

اذا كانت الإجابة نعم يرجى ذكر البعض منها

.....

.....

.....

Psychologists 'Questionnaire (English Version)

Dear Psychologists,

This questionnaire is part of a research work on the linguistic development among children with electronic screen syndrome .your insights will contribute to better understanding of their unique needs and experiences. You are kindly requested to answer this questionnaire .Thank you for your collaboration.

1. How many years have you been working as a psychologist?

1-5

5-10

10-20

2. How many children with electronic screen syndrome do you currently work with?

1-5

6-10

11-15

16-20

3. Can you provide statistics about gender distribution among these children?

Boys

Girls

4. When assessing the psychological well being of these children which autistic behaviors that are indicative?

Repetitive behaviors

Changes in sleep patterns

Increased irritability

All of the above

5. Can you identify specific behavioral patterns commonly observed among children with electronic screen syndrome?

Yes

No

If yes what are they?

.....
.....

6. Have you noticed specific communication patterns that differentiate children with ESS from those with Autistic Syndrome Disorder (ASD) ?

Yes

No

7. How can you describe the social communicative skills of electronic screen syndrome children?

.....
.....
.....

8. : To what extent do these children engage in verbal communication?

Rarely

Occasionally

Frequently

9. From a psychological perspective, which behaviors do you often observe among children with electronic screen syndrome that may affect their social interactions?

Difficulties in understanding social cues

Emotional regulation challenges

Unusual sensory responses

All of the above

10. Can you achieve results through your interventions as a psychologist in these cases to develop their social communication skills ?

Yes

No

No

11. How do you evaluate your role as a psychologist in the cases of these children?

Significant

Moderate

Minimal

12. Are there specific challenges you commonly face?

Yes

No

If yes, what are they ?

.....
.....
.....

Appendix B

Speech Therapists' Questionnaire (Arabic Version)

استبيان خاص بالأخصائيين الارطوفونيين

شكرا لمشاركتكم في هذا البحث حول التطور اللغوي بين الأطفال ذوي متلازمة الشاشات الالكترونية تحليلات القيمة ستساهم في فهم أفضل لاحتياجاتهم وتجاربهم الفريدة يرجى منكم الإجابة على هذا الاستبيان شكرا لتعاونكم

1. كم عدد السنوات التي عملت فيها كأخصائي ارطوفوني؟

5-1

10-5

20-10

2. كم عدد أطفال الشاشة الذين تعمل معهم حاليا؟

5-1

10-6

15-11

20-16

3. هل يمكنك إعطائي إحصائيات حول نسبة الذكور والإناث؟

الذكور

الإناث

4. هل لاحظت تأخر في اللغة بين هؤلاء الأطفال؟

نعم

لا

ادا كانت الإجابة نعم فما هي الجوانب اللغوية المحددة؟

5. كيف تصف سلوك هؤلاء الأطفال الاجتماعي؟

.....
.....
.....

6. إلى أي مدى يشارك هؤلاء الأطفال في التواصل الغير لفظي؟

نادرا

بين الحين والآخر

بشكل متكرر

7. هل هناك ملاحظات على أنماطهم في التواصل الغير لفظي

نعم

لا

ادا كانت الإجابة نعم يرجى إعطاء أمثلة

.....
.....
.....

8. عند تقييم التطور اللغوي أطفال الشاشة أي الطرق التي تجدها أكثر فعالية لمتابعتهم

تقييم قياسي

مراقبة في البيئة الطبيعية

تقارير الأهل

مزيج مما تم ذكره أعلاه

10. كيف تتم جلسات العلاج ؟

خطط علاج فردية

جلسات علاج جماعية

تدريب الأهل

كل ما تم ذكره أعلاه

Speech Therapists' Questionnaire (English Version)

Dear speech Therapists,

This questionnaire is part of a research work on the linguistic development among children with electronic screen syndrome .your insights will contribute to better understanding of their unique needs and experiences. You are kindly requested to answer this questionnaire .Thank you for your collaboration

1. How many years have you been working as a speech language therapist ?

1-5

5-10

10-20

2. How many children with electronic screen syndrome do you currently work with?

1-5

6-10

11-15

16-20

3. Can you provide statistics about gender distribution among these children?

Boys

Girls

4. Have you observed delays in language performance among children with ESS?

Yes

No

If yes, what are they?

.....
.....
.....

5. How would you describe the social behavior of these children?

.....
.....
.....
.....

6.To what extent do these children engage in verbal communication?

Rarely

Occasionally

Frequently

7.Have you observed any notable patterns in non verbal communication among these children?

Yes

No

If yes ,what are they

.....
.....
.....
.....

8. When assessing the linguistic development of children with ESS which method do you find most effective?

Standardized assesments

Observation in natural settings

Parents 'reports

Combination of the above

9. How do you tailor interventions for children with electronic screen syndrome?

Individual therapy plans

Group therapy sessions

Parent training

Combination of the above

APPENDIX B

Speech Therapists' Questionnaire (Arabic Version)

استبيان خاص بالأخصائيين الارطوفونيين

شكرا لمشاركتم في هذا البحث حول التطور اللغوي بين الأطفال ذوي متلازمة الشاشات الالكترونية تحليلات القيمة ستساهم في فهم أفضل لاحتياجاتهم وتجاربهم الفريدة يرجى منكم الإجابة على هذا الاستبيان شكرا لتعاونكم

1. كم عدد السنوات التي عملت فيها كأخصائي ارطوفوني

5-1

10-5

20-10

2. كم عدد أطفال الشاشة الذين تعمل معهم حاليا

5-1

10-6

15-11

20-16

3. هل يمكنك إعطائي إحصائيات حول نسبة الذكور والإناث بين هؤلاء الأطفال

الذكور

الإناث

4. هل لاحظت تأخر في اللغة بين هؤلاء الأطفال

نعم

لا

أذا كانت الإجابة نعم ماهي الجوانب اللغوية المحددة

.....
.....
.....

كيف تصف سلوك هؤلاء الأطفال الاجتماعي

.....
.....
.....

APPENDIX C

Interview with Psychologists (Arabic Version)

مقابلة مع الأخصائيين النفسيين

أشكرك لاستجابتك لحواري الذي من خلاله أريد التعرف إليك شخصيا في مجال عملك وخبرتك مع أطفال الشاشة كم عدد السنوات التي قضيتها في العمل مع الأطفال الذين يعانون من متلازمة الشاشات الالكترونية

1 حسب خبرتك ماهي السلوكيات المحددة التي لاحظتها لدى هؤلاء الأطفال؟

2 كيف يمكنك وصف الجانب العاطفي والاجتماعي لهؤلاء الأطفال؟

هل تساهم هذه الجوانب في مهاراتهم اللغوية؟

3

4 هل تتعاون مع اخصائى النطق واللغة أو غيرهم عند التعامل مع هؤلاء الأطفال؟

5 هل تتعاون مع الأولياء؟

6 كيف تأثر سلوكيات متلازمة الشاشات الالكترونية على عائلات هؤلاء الأطفال؟

7 هل بإمكانك تقديم استراتيجيات فعالة لمساعدة الأهل مع أطفالهم؟

8 هل يمكنك مشاركة قصة ناجحة؟

Interview with Psychologists (English Version)

Thank you for responding to my interview, through which I want to get to know you personally in your work and your experience with children with electronic screen syndrome

1. How many years of experience you have been working with children with electronic screen syndrome?
2. in your experience, what specific behaviors have you observed in these children?
3. How can you describe the emotional and social aspect of these children?
4. Do these aspects contribute to their linguistic skills?
5. Do you collaborate with speech language therapists or other specialists when addressing children with electronic screen syndrome?
6. Do you collaborate with parents?
7. How do electronic screen syndrome 'behaviors impact children's families?
8. Can you provide effective strategies to aid parents with their children?
10. Can you share a success story?

Appendix D

Interview with Speech Language Therapists (Arabic Version)

مقابلة مع الأخصائيين الارطوفونيين

أشكرك لاستجابتك لحواري الذي من خلاله أريد التعرف إليك شخصيا في مجال عملك وخبرتك مع أطفال الشاشة

1 كم عدد السنوات التي قضيتها في العمل مع الأطفال الذين يعانون من متلازمة الشاشات الالكترونية؟

2 هل لديك حالة معينة تواجه تحديات لغوية فريدة ؟

3 هل يمكنك إعطائي بعض التحديات اللغوية التي يواجهونها هؤلاء الأطفال؟

4 ماهي التقنيات التي تستعملها لتلبية حاجياتهم اللغوية ؟

5 هل تتعاون مع اخصائين النفسانيين أو غيرهم عند التعامل مع هذه الفئة من الأطفال؟

6 هل تتعاون مع الأولياء ؟

7 هل بإمكانك تقديم استراتيجيات فعالة لمساعدة الأهل مع أطفالهم؟

8 هل يمكنك مشاركة قصة ناجحة ؟

Interview with Speech Language Therapists (English Version)

Thank you for responding to my interview, through which I want to get to know you personally in your work and your experience with children with electronic screen syndrome

1. How many years of experience you have been working with children with electronic screen syndrome?
2. Do you have specific cases that encounter unique linguistic challenges?
3. Can you provide some linguistic challenges?
4. What are the techniques that you used to address their linguistic needs?
5. Do you collaborate with psychologists or other specialists when addressing children with electronic screen syndrome?
6. Do you collaborate with parents?
7. Can you provide effective strategies to aid parents with their children?
8. Can you share a success story?

الملخص

يتناول هذا البحث الانتشار الملحوظ لمتلازمة الشاشات الالكترونية بين الأطفال في الآونة الأخيرة حيث أصبحت تشكل خطرا كبيرا وتؤثر سلبا على التطور اللغوي بين الأطفال خاصة فيما يتعلق بلغتهم وسلوكياتهم وتفاعلاتهم الاجتماعية في الواقع يهدف هذا البحث إلى معرفة آراء الاخصائين النفسيين و أخصائي النطق حول هذه الفئة من الأطفال وعن التحديات التي يواجهونها ودورهم في تلبية احتياجاتهم اللغوية والتواصلية وفي هذا السياق قام البحث بجمع البيانات من خلال استبيانات ومقابلات مع الاخصائين حيث سلطت النتائج الضوء على الدور المهم للفحص المبكر وعلى التحديات اللغوية والتواصلية الفريدة بين أطفال الشاشة وكذلك ضرورة نشر الوعي بين الآباء حول هذه المتلازمة والتدخل للقضاء عليها أو الحد منها في وقت مبكر

Summary

The study examines the widespread prevalence of electronic screen syndrome in recent time ,where electronic screens become a significant threat, negatively impacting children ,particularly in terms of their language, behaviors and social interactions .The aim of this study is to explore the perspectives of psychologists and speech therapists regarding these case of children ,the challenges they faced ,and their role in meeting the linguistic and communicative needs of these children. In this context, the data was collected through questionnaires and interviews with specialist, where the findings shed light on the crucial role of early intervention programs and the unique linguistic and communicative challenges among children with electronic screen syndrome, As well as the necessity of raising awareness among parents about this syndrome and intervening to eliminate or reduce its impact early on.

Résumé

Cette étude examine la prévalence généralisée du syndrome de l'écran électronique, notamment ces dernières temps, ou les écrans électroniques sont devenus une menace significative, impactant négativement les enfants, particulièrement en termes de langage, de comportement, de communication et l'interaction sociales. L'objective de cette étude est d'explorer les perspectives des psychologues et des orthophonistes concernant ce groupe d'enfants, les défis auxquels ils sont confrontés, et leur rôle dans la satisfaction de leurs besoins linguistiques et communicatifs. Dans ce contexte, des données ont été collectées via des questionnaires et des entretiens avec des spécialistes, Ou les résultats ont mis en lumière le rôle important des programmes d'intervention précoce et les défis linguistiques et communicatifs uniques parmi les enfants atteints du syndrome de l'écran électronique, ainsi que la nécessité de sensibiliser les parents a ce syndrome et d'intervenir pour éliminer ou réduire son impact des le début.