

## **The Reality of Early Detection of Autism Spectrum Disorder Traits from the Perspective of kindergarten Teachers-Exploratory Study in the Cities of Algiers and Laghouat-**

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### **Abstract:**

The purpose of this study is to identify the reality of early detection of autism spectrum disorder traits from the perspective of kindergarten teachers in the cities of Algiers and Laghouat. The researchers followed a descriptive approach and applied a questionnaire to a sample of 89 kindergarten teachers. The study found that the kindergarten teachers in the study sample were able to identify some of the symptoms of autism despite not having sufficient information about it.

**Keywords:** Early detection, autism, kindergarten.

### **Introduction:**

As an individual grows, they go through many stages in their life, and perhaps the most important of these stages is childhood. During this stage, children often enter kindergarten, which is the first educational institution that forms the foundation - after the family - in building the child's personality, developing their abilities, and honing their skills. Many experts in the educational, psychological, and social fields, as well as parents and guardians, have emphasized the importance of this topic and the role of kindergarten in discovering children's talents, improving their performance, identifying their problems, and addressing them. For this purpose, various means and capabilities have been allocated for the education, care, and upbringing of children, and to detect disorders and solve problems that children may face in their early stages of life.

In this regard, children with autism show a great diversity in their characteristics, behaviors, and abilities. These characteristics vary depending on their age and developmental stage, as children with autism are a heterogeneous group in terms of characteristics and attributes. Some of these characteristics may be observed in a particular child, while other characteristics may appear in another child. However, there are general characteristics that all children share, and these characteristics are the ones that help professionals, parents, and even kindergarten teachers detect this disorder.

Researchers have confirmed that there are behavioral patterns of autism from an early age, and they are observable by the mother, other family members, or even those who care for the child during the absence of his parents. Everyone, especially the parents, realizes that the child is growing slowly and abnormally, especially since he will show a clear delay in the areas of language and social skills. As a result, researchers and specialists have given great importance to early detection of the symptoms of this disorder. Early awareness and detection of children at risk of autism can save a lot of effort and time.

### **Problem statement:**

Childhood problems vary depending on the stages of growth. We may find temporary problems such as bedwetting, thumb-sucking, anger, and fear. We may also find more serious or more disabling problems that prevent the child from normal growth, such as communication disorders, pervasive developmental disorders, and autism, which are some of the most important disabilities that appear during the growth period and are the most common in childhood. It usually begins to appear before the age of three, and in most cases, it is difficult to determine the age at which the disorder began if those who care for the child are not able to provide accurate information about the manifestations of linguistic, social, and emotional development. Indeed, the manifestations of the disorder may not be observed in the child except when he is with other children, for example in kindergarten.

Autism is one of the developmental disorders that significantly affects the child's development and growth. It significantly inhibits the child's verbal and non-verbal communication skills and social

interactions. Recent studies have shown that the symptoms of autism may appear in one child but not in another, and the clinical picture varies from case to case. However, there is almost complete agreement that the child with autism suffers from a deficit in the areas of social interaction and verbal and non-verbal communication. They also show behavioral problems, where the child performs some movements and behaviors that are not appropriate for his level of development.

The kindergarten teacher (or nanny) is the most important element in the educational process in early childhood. She is the one who deals directly with the children implements the curricula and programs, and adapts the educational situations. No matter how available and advanced the tools, techniques, and means of kindergarten are, it will be of no use to a teacher who is not well-qualified. Therefore, the success of the nanny's tasks and her performance of her educational and educational role includes being familiar with the characteristics of children's development in this stage and the individual differences between them, and also being aware of the nature of the disorders, diseases, and disabilities that can appear in kindergarten. Which are observable to her.

The problem of this study stems from the increasing social need to raise awareness and awareness of autism as a social problem before it becomes a health, educational, and psychological problem, and it is directed to those working in the field of care, education, and education of early childhood. It has been proven in the field of special education that early detection is beneficial for children with autism, provided that human and material conditions are provided and the importance of individual and intensive educational intervention at an early age is emphasized. The majority of cases of autism are detected between the ages of one and a half and three years. Some studies (Biranik (1999) and Mok and Dorik (1998) have indicated that autism has been detected in some cases in the age group between 12 months and 18 months.<sup>1</sup>

In light of what has been mentioned previously, the idea of this study came to look for the reality of early detection of cases of autism through the samples of the capital of Algeria and the city of Laghouat, within the framework of an exploratory study and preventive work for the benefit of nannies, supervisors, and workers in the field of childcare in the pre-school stage, that is, in the field of education and education of early childhood.

Based on the above, the following questions must be asked:

**Main question:**

- ❖ What is the reality of early detection of autism in kindergartens from the perspective of a sample of nannies in the cities of Algiers and Laghouat?

**Sub-questions:**

- ❖ Can the nanny detect children with special needs?
- ❖ What are the communication, cognitive, and behavioral disorders that the nanny can detect?
- ❖ What are the indicators that the nanny relies on to detect autism?
- ❖ Does the nanny have enough information about autism?

**The importance of Research:**

The importance of this study lies in an attempt to monitor the reality of early detection of autism in kindergartens from the perspective of nannies, given their role in observing abnormal behavioral indicators in children. The study aims to reach results that contribute to highlighting the role of detection and intervention for cases of autism in early childhood and raising awareness among workers in this sector and those who run it of the need for training and development in the field of disorders and diseases in general and specifically in the field of autism, given the spread of cases with it in recent decades.

**Research Objectives:**

- ✓ To get acquainted with the reality of the early detection process of autism from the perspective of nannies working in kindergartens.
- ✓ To know the role of kindergarten nannies in the early detection of autism.
- ✓ To monitor the indicators and disorders that kindergarten nannies can detect.
- ✓ To know the extent to which nannies have knowledge and information about the autism spectrum

**Theoretical Framework for the Study:**

Kindergartens spread in many European countries after the success of Froebel's educational curriculum. The Italian educator Montessori also founded her first school in 1907 for children between the ages of three and seven, known as the Children's House. In Arab countries, kindergarten schools did

not appear until recently, after being called for by educators and intellectuals. Despite this, Arabs in the pre-Islamic era cared for children and raised them from birth, whereas the rich would send their children as infants to wet nurses in the desert.<sup>2</sup>

The teacher at the kindergarten level can be described as the basic or central link, as she is responsible for the educational and educational process and is entrusted with the care of children in kindergartens. She can also be defined as the teacher who has direct contact with the child to meet his needs and desires and implements the programs that have been developed according to a plan of educational and educational experiences in a continuous and organized manner to modify his behavior in a way that achieves his comprehensive and integrated growth.<sup>3</sup> Therefore, the kindergarten teacher must have certain skills and possess characteristics and specifications that enable her to fulfill her duty towards the kindergarten child, perhaps the most important of which is related to her training in the identification of various disorders and disabilities and the possibility of detecting them.

Several professional tasks have been assigned to kindergarten teachers, the most important of which are:

- Preparing activities according to the curricula and their goals, on the one hand, and according to the interests, abilities, and talents of children, on the other hand.
- Studying the goals that children should reach through the educational process.
- Linking activities to everyday life and the child's environment.
- Preparing therapeutic activities to address the weaknesses that are revealed by the evaluation of some children before they worsen.<sup>4</sup>

Educational and psychological experts agree that there has been an increase in the number of children with autism in recent years. This confirms the importance of early detection and calls for attention to it as the basis for early intervention and early education, as it can save efforts and time in building and implementing therapeutic projects for autism cases based on treating the child and modifying his behavior.

Here, the role of parents comes to the fore. Parents often leave the upbringing of children to the teacher or nanny, entrusting them with it alone due to their experience and knowledge of the cognitive and scientific methods of dealing with children with autism. This trend is widespread in our societies in particular, which calls for work to raise awareness among them about the nature of autism and the signs of its appearance during early childhood. This will allow them, within their knowledge and capabilities, to report their observations, whether to the nannies and the specialists working with them, so that the actual detection and examination can be carried out and the cases of autism can be diagnosed, if any. From here, early intervention, which refers to the procedures and practices that aim to address the various problems of children, has become a national priority in some countries. This is due to the importance of discovering children's problems and intervening to treat them early.<sup>5</sup> However, it is important to note that the appropriate treatment solutions are primarily related to early and good diagnosis.

The characteristics of a child with autism appear before the end of their third year. If any of these characteristics are observed, it is important to monitor the child and show them to a specialist. These characteristics include:

- The child does not try to move their body or take the position that indicates their desire to be carried.
- The child stiffens when carried and tries to escape.
- They appear to be deaf and do not hear. They do not respond when their name is mentioned or to any of the sounds around them.
- The child fails to imitate other children in the same age group and has a deficiency or halt in the development of the ability to communicate, both verbally and non-verbally.<sup>6</sup>

Diagnosing cases of autism is a difficult and precise task that requires time, standardized clinical tools and techniques, and experience and expertise from the examiner, regardless of their scientific and professional specialization. Unfortunately, the number of specialists who have received specialized training in the field of diagnosing children with autism is decreasing, while the number of cases and the number of requests for intervention, treatment, and rehabilitation are increasing. This may lead to misdiagnosis, given that the symptoms of autism are similar to the symptoms of some disabilities such as mental retardation in children, severe language disorders such as severe language delay, and cases of psychological diseases such as schizophrenia.

Autism and its symptoms can also be overlooked in the early stages of a child's life, which can make it difficult to intervene, treat, and rehabilitate. A child cannot be diagnosed without careful observation of their motor, linguistic, and social behavior and communication skills, and comparison with normal developmental levels. Therefore, the child's condition must be evaluated by a multidisciplinary team using a variety of techniques, tools, and tests. The process also takes time due to the importance of observations that are monitored about the child's behavior, whether by a specialist, parents, or educators and then analyzed and interpreted.

**Field Framework of the Study:**

**Methodology:**

The researchers followed the descriptive approach in conducting this study to achieve the study objectives and answer the questions posed. This study is considered one of the few descriptive exploratory studies in Algeria, within the limits of the researchers' knowledge.

**Sample:**

The sample of this study consisted of practicing kindergarten teachers at the level of a number of kindergartens in the cities of Algiers and Ouargla, who were selected by non-probability purposive sampling, with a total of 120 teachers. However, not all questionnaires were returned, which reduced the sample size to 89 teachers, who are distributed over a number of kindergartens as shown in the following table:

Table (1) shows the distribution of the sample in kindergartens in the cities of Algiers and Ouargla.

Number of questionnaires returned	Number of questionnaires distributed	Name of the kindergarten	Type of kindergarten	City
09	12	Kindergarten Boukhra	Governmental kindergarten	Algiers
12	23	Kindergarten Ismail Ismaili		
11	14	Kindergarten Nesiba Maliki		
12	12	Kindergarten Bouzeriah municipality		
03	03	Kindergarten Jannat Al Atfal	Private kindergarten	
03	03	Kindergarten Al SighAr		
03	03	Kindergarten Al Bat Al Saghir		
07	09	Kindergarten Al Riyas		
06	06	Kindergarten Madrasat Al Noor		
05	07	Kindergarten Nebraas		
04	04	Kindergarten Malaika Boulogine		
05	05	Association Trio Al Sa'ada	Association	
00	03	Association I'mtiaz		
07	07	Kindergarten Al Nakheel	Private kindergarten	laghouat
02	09	Kindergarten Al Aman		

89	120	Total
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**Study tool:**

The study tool was a semi-open questionnaire developed by the researchers. Its application aimed to survey the reality of early detection of autism cases from the perspective of kindergarten teachers. Its questions focus on professional experience, original training, the ability of the teacher to discover unusual children, the nature of the disorders that can be detected, the age of detection of autism, and the nature of the behaviors that make the teacher suspect that the child is autistic.

**Presentation, Analysis, and Discussion of the Results:**

Percentage	Frequency	Professional experience
52.8%	47	Less than 5 years
31.5%	28	5-10 years
13.5%	12	10-20 years
2.2%	2	More than 20 years
100%	89	Total

The table above shows that a significant proportion of kindergarten teachers have less than five years of professional experience, at around 53%. This could be because kindergartens are relatively new institutions, and their number is constantly growing. This creates employment opportunities, especially for women, due to the nature of the profession, which is related to the care of children. It is also important to note that the 31% category of teachers with five to ten years of experience also suggests that kindergarten workers have experience that helps them in their work, such as welcoming and caring for children and understanding their problems and disorders. We can add to this the fact that there is a constant need to hire kindergarten teachers, due to the increasing demand from parents, as mothers are leaving the workforce and are no longer at home.

**Table (3)** shows the original training of kindergarten teachers.

Original training	Frequency	Percentage
Kindergarten teacher	50	56,2%
Psychologist	5	5,6%
Speech therapist	4	4,5%
Other training	15	16,9%
Kindergarten teacher and other training	14	15,7%
Psychologist + other training	1	1,1%
Total	89	100%

It is clear from reading this table that the women in charge of the educational process for kindergarten children have a diploma in early childhood education. This is reflected in a percentage of around 56%, which is an important percentage. The percentages of 15.7% and 16.9% also appear to represent a category of women who supervise the education and care of children and have diplomas in training other than psychology and education sciences. For example, among the answers obtained, there was someone who indicated that she holds a diploma in public relations, meaning that she studied media and journalism. On the other hand, the percentage of specialists is very low, at 4 and 5%, which is a very small percentage compared to the other training mentioned in this study. This may be due to the lack of desire to work in the field of early childhood education due to the difficulty of the tasks entrusted to them, and also due to the nature of the positions that women with university degrees aspire to in their professional future.

**Table (4)** shows the possibility of detecting unusual children.

Percentage	Frequency	Response type
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98,9%	88	Yes
1,1%	1	No
100%	89	Total

Based on the data in Table 4 above, we note that about 99% of kindergarten teachers confirmed their ability to detect unusual children, even though most of them have less than 5 years of experience. This may be due to the nature of their training on the one hand and to their continuous exposure to cases of unusual children with special needs, which made it easier for them to observe and monitor their abnormal behaviors, and then adopt them as indicators when any child shows unusual behaviors. In addition, it is possible that kindergarten teachers may also be mothers or have relatives with autism, which is a factor that was not controlled in this study, making them truly qualified to detect unusual children. It is also possible that they may have been exposed to content that explains autism through television programs or websites.

**Table (5)** shows the communication, cognitive, and behavioral disorders that a caregiver can detect."

Type of disorder	can be detected by the kindergarten teacher		Cannot be detected by the kindergarten teacher	
	Frequency	Percentage	Frequency	percentage
Communication disorders (language)	85	95,5%	4	4,5%
Cognitive disorders (memory, attention)	65	73%	24	27%
Behavioral disorders (aggression, hyperactivity)	86	96,6%	3	3,4%
Autism	77	86,5%	12	13,5%
Intellectual disability	52	58,4%	37	41,6%
Hearing impairment	63	70%	26	29,2%

This table shows the nature of the disorders that a caregiver can detect. We find that the highest percentage is for behavioral disorders, estimated at 96.6%, and also for communication disorders at 95.5%. This suggests that the matter is related to the symptoms of these disorders, which are inevitable and cannot be ignored by anyone. They are also common in the preschool stage (in kindergarten) as transient physiological conditions. By closely reading the table, we note that the discovery of autism came in third place at 86.5%. This may be due to the idea that was previously mentioned regarding the nature of the disorders in themselves because they are common in children. However, autism may be a puzzle for many caregivers, as its symptoms are similar to other disorders and disabilities.

**Table(6)** shows the age of autism diagnosis.

Answers	Frequency	Percentage
Between 0-12 months	12	13,5%
Before 3 years	63	70,8%
After 3 years	12	13,5%
No answer	2	2,2%
Total	89	100%

Based on the information in Table 6 above, we note that the highest percentage, 70.8%, was for the second answer, which is that autism is diagnosed before the age of 3. This is a well-known fact in the field of special education in general. In addition, many media outlets and the internet have covered the topic, devoting time and attention to it. This may indicate that a significant percentage of kindergarten teachers are aware of this.

**Table (7)** shows the behaviors that make the many suspect that a child is autistic.

Provided answers	Frequency	Percentage
Does not like to socialize and play with children	36	13,5%
Does not communicate visually (does not look at your eyes)	35	13,1%
Lives in a closed world	27	10,1%
Communication disorders (verbal and nonverbal)	25	9,4%

Repetitive behaviors (swinging, playing with hands, ...)	20	7,5%
Inattentive or has hyperactivity	23	8,6%
Other Answers	66	24,7%
No answers	35	13,1%

It should be noted that the other answers include many answers that are not repeated very often, including Very loud and aggressive, Can't sit in one place for a long time, Doesn't like change, Unable to complete activities, Interested in one toy or part of a toy, Doesn't seem to hear, as if deaf, Very sensitive to sounds, Doesn't feel danger, Intelligent children, Repeats what they hear, Makes strange sounds, Laughs for no reason, Repeats one word in every situation\*\*

Based on the information in Table 7 above, we note that the percentages for the two answers "lack of eye contact" and "lack of social interaction" are very similar. Similarly, the percentage of caregivers who did not answer the open-ended question is also similar. This suggests that some caregivers may not have a basic understanding of autism and its symptoms.

We also note that the highest percentage, 24.7%, represented other answers that summarized a number of behavioral characteristics of a child with autism. These characteristics can be indicators of autism, but they can also be symptoms of other conditions, such as intellectual disability, attention deficit hyperactivity disorder, and some childhood psychiatric disorders. However, it is noteworthy that the answers given were not far from the symptoms of autism, but they lacked the use of scientific terminology related to autism spectrum disorder. This suggests that the training and knowledge of caregivers about autism may be limited to the limited number of cases they receive. In addition, lack of continuous training and lack of participation in awareness and training courses in this field play a role in this.

**Table (8)** shows if the kindergarten teachers have adequate information about autism.

Response type	Frequency	Percentage
Yes	42	47,2
No	47	52,8
Total	89	100%

After reading the table above, it is noteworthy that the result was unexpected. A percentage of 52.8% of the study sample denied having sufficient knowledge of autism. This suggests that their answers to the questionnaire were mostly superficial and did not reflect the caregivers' convictions. We may go so far as to assume that the previous positive answers came from an attempt to suggest that they can detect autism as a disorder in and of itself to distinguish themselves from other caregivers working in other kindergartens. Alternatively, it may be that the cases they receive are cases diagnosed as autism by a specialized doctor, so the caregiver only needs to try to deal with the child within the limits of the doctor's diagnosis. On the other hand, it is important to note that detecting and diagnosing autism as a disorder is not a trivial matter, as it requires considerable time and effort from a multidisciplinary team led by a specialized doctor in child mental health.

Concerning the percentage of 47.2%, which represents the answers of caregivers who acknowledged that they have sufficient knowledge about autism, it is a significant percentage and its interpretation requires further exploration to clarify whether it is related to the type of caregiver training, their professional experience, or other factors that were not controlled in this study.

## Conclusion

The importance of early detection of communication and language disorders has become increasingly recognized due to the importance of early childhood and its role in determining the child's future in school and society. Research has shown that early detection is beneficial and is closely linked to public awareness. It helps to identify children at risk (or even disordered) so that early intervention can be provided and their problems can be reduced. It also benefits the child and the family. A well-trained caregiver can anticipate problems and work hard to find solutions. They can also be alert to and observe

some of the features and indicators associated with autism spectrum disorder, which is the subject of this study.

The researchers found that there is a contradiction between the results of the tables. On the one hand, caregivers provided data indicating that they can identify unusual behaviors and some disorders, including autism as a developmental disorder. On the other hand, more than half of the sample did not have sufficient information about autism. This suggests that their knowledge is limited to superficial knowledge of a few common symptoms that are known to most people. This may affect the caregiver's relationship with the autistic child who has not yet been diagnosed. The detection of their condition may be delayed or postponed, as their behaviors are considered normal at this age and do not require concern or intervention.

#### **Study Suggestions:**

In light of the results of the current study, the researchers suggest the following:

- Add specialized scientific curricula in special education, specifically in autism and comprehensive developmental disorders, to the educational and training curricula for the category of educators and all those involved in the care of early childhood institutions.
- Work to establish training and development courses for educators in order to inform them and provide them with scientific expertise and behavioral patterns in kindergarten children, and train them on how to detect disorders by monitoring unusual behaviors.
- Establish cooperation between the parents of children, specialists, and kindergarten educators and facilitate communication between them, to detect cases of autism and treat the disorders that children suffer from at an early stage.
- It is necessary to work on the employment of specialized and qualified educators in the field of childcare and education, specifically the detection of abnormal cases.
- Carry out awareness campaigns in which all media outlets participate about the importance of early detection of autism disorder at the level of kindergartens and its role in early care.

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