A psycholinguistic study of the linguistic behavioral problems of autistic children in primary school

Marzooqa T Raheel and Saad Abdullah Mirdas

Abstract
Those who have autism are suffering problems in both communication and language, nowadays the focus is on the communication difficulties that define the residents. In last 70 years, many researches appear about this topic following Kenner’s seminal publication. During this time the concept of autism has clear definition, has extended to include a “spectrum” of conditions in which the difficulties in social contact is the main feature. This leads to new effective interference strategies. There is improvement on the outcomes with more adults able to achieve lives of independence and self-sufficiency; with more reinforcement, the individuals will be able to achieve best. The studies still explain the development from birth.

The problems in interaction is defined as autism, both behavioral and social interaction. Those children who are suffering from autism are less able to contact with others. Autism is called a “spectrum” disorder for children have a number of signs and harshness. ASD has many causes and courses that wide range in symptom severity and several associated comorbid disorders. This disease will continue to a long time. This study will explain difficulties and solutions of Autism.

The current study aims to detect the common linguistic behavioral problems of autistic children in light of some variables: gender, age, place of study and the specialists. The sample consists of 4 males and 4 females who attend schools special education institutions in Thi-Qar. Using the (AL- kiki, 2011) \( ^{1} \) scale as a model consisting of (32) items including the common behaviors of autism, There sults showed that the most common linguistic problem "was the difficulty in speaking when she/ he wanted something Also, This study shows the importance of training programs used in centers in developing the linguistic ability of children with autism and reducing the Behavioral problems. The change in children's language skills is the main result of this study, even the articulation skills were spared.

Keywords: Autism, linguistic behaviour, autistic children

1. Introductions
1.1 ProblemsoftheStudy
Autistic children might have difficulty to learn and use language Ethan typically developing children. They have fewer opportunities to use, learn and practice language. The study attempts at rising the following questions as to its main problems:
1. Is there a difference in the behavior of autistic children, which in turn affects their language skills?
2. Is the difference in the linguistic behavioral problems of autistic children due to the difference in the gender of the child or not?
3. Is the area difference between the linguistic behavioral of autistic children in the private classes and ordinary classes, private class?
4. What is the impact of autism on language use and learning?

1.2 Aim of the study
The study aims to explain the term autism and to show the effect of autism on the behavior of children as well as its effect on language use and learning.

1.3 Hypotheses of the study
The study hypothesizes the following
1. Autistic children might not communicate in the same ways as typically developing children.
2. Autistic children might point, show objects, or repeat phrases.
1.3 The procedures of the study

- The Study Samples consisted of (8) individuals, (4) boys and (4) girls used as a case study.
- The questionnaire is directed to workers in centers specialized in dealing with autistic children in Thi-Qar government.

1.4 Limits of the study

The study is limited to students with autism in a private institute in Thi-Qar. Identifying the linguistic behavioral problems according to some Variables.

2. Literature review

2.1 Definition of Autism

Idiomatically autism is defined by the American Psychological Association as a developmental disorder that appears during the first three years of life. This disorder affects brain functions. Thus, it is negatively reflected on the areas of social interaction, verbal and nonverbal communication, and children respond to things more than responding to people, getting upset and resisting any change that occurs in their environment, in addition to the stereo typical repetition of some movements and behaviors or the repetition of some words and syllables in an automatic way. American Autism Association. (American psycho logical Association, 2013) [2].

Knoors (2011.82-96) [12] defined autism as non-existent behavior characterized by intensity and repetition, and differs from the standards of normal behavior in the environment surrounding the child, is those repetitive behaviors and actions that are characterized by intensity and repetition that the autistic person causes within the classroom environment and are expressed through the scores used in the behavioral problems scale in this study.

Salwu & Osuji (2008) [16] mention that autism is a type of training stage, where students are sent to schools to gain professional practical experience by transforming all the study theories they have learned into practices and application. While Cohen (2012-p 517-525) [18] indicated that the symptoms of autism affect children up to five years, and that the prevalence rate of autism is higher in males than in females. They pointed out a great similarity between mental disability and autism, as the mentally handicapped sometimes show similar behaviors to the autistic behaviors.

Humphrey and Symes (2011, p32-46) [18] indicated that one of the characteristics of students with learning difficulties is hyperactivity, and that the intelligence rates and mental abilities of some of the mare very high in some areas and they show weakness in other areas, as some of them appear to have severe difficulties in learning. Reading and dyscalculia appear in some situations weak in perception and confusion, which is one of the features that people with autism seem to have.

Both Hyman and Lavy (2013.345-367) [19] stated that autism mainly affects the developmental axes represented in cognition. Difficulty informing social relationships, stereotypical behavior, and communication, and the symptoms that fall under these axes, for example, social isolation, aggression, self-harm, introversion.

Autism is a set of behavioral characteristics that appear in children with autism, represented in the difficulty in forming effective communication and normal relationships with wages, low level of intelligence in most children with medium and high intelligence in some without isolation and severe withdrawal from society Routine repetition of words and phrases Which others mention in front of the child, repetition and stretching of motor activities, disturbances in motor manifestations, disturbances in language or aphasia, poor response to dental bulletins, and severe disturbances in behavior (Pearcc2005,38-55) [15].

In 2013 the American Psychiatric Association changed the term autism to autism spectrum disorder. ASD is not branch but umbrella that covers the following conditions:

- Autistic illness.
- Pervasive development disorder - not otherwise specified (PDD - NOS).
- Asperger syndrome.

(https://my.clevelandclinic.org/health/diseases/8855-autism)

2.1 Categories of autism spectrum disorder

Autism variety illness has five different symptomatic groups. In spite of those groups have similar features but also the have a unique characteristics. The diagnostic categories within ASD are (1)

![Fig 1: Types of Autism](https://my.clevelandclinic.org/health/diseases/8855-autism)

2.1.1 Pervasive development disorder

This illness is featured by a number of traits such as reciprocal social communication, language, and interaction and by the presence of repetitive/stereotypic models of behavior and interests (DSM-IV). There is no clear reason for this disease till now. The genetic issues still the main cause (Volkmaretal, 2004) [18]. There is medicine for this illness, but research shows it is able to cure autism children with respect to language and cognitive development. At least 25 hours / week in preschool will be benefit for children with pervasive developmental disorders (2). There is a high number of those cases were treated in this way (Jarbrink and Knapp, 2001) [19] and influenced by the prevalence of pervasive developmental disorders in preschoolers.

2.1.2 Autistic disorder

ASD happens because differences in the brain. Some people have genetic causes. While other reasons are not yet known. Many reasons work together to change the normal development of people. The challenges of social skills, repetitive behaviors, speech and nonverbal communication are the main symptoms of ASD. In each 44 children, there is one child who suffers from ASD.

There are many different types, the mixture of genetic and environmental factors leads to the most popular one. Each person has special features and challenges. There are different ways to cure people with autism. Some people need a high help while others need less. (ibid)
The development of autism is affected by many issues. It is also joined by medical factors such as gastrointestinal (GI) disorders, seizures or sleep disorders, as well as mental health challenges such as anxiety, depression and attention issues. Some symptoms can appear at the age of two or three years and sometimes can appear at the age of eighteen months. (ibid).

2.1.3 Asperger syndrome
There is no specific age for the appearance of mental disabilities. Problems with rules of writing will appear in some individuals. There is less appearance of those disabilities in young child they will be clear when the children enter the school. Individuals with Asperger’s Syndrome may have an average or above-average in disability of communication. This disorder is more common in males but may be under diagnosed in females (Volkmar and Klin, 2000) [19]. Asperger syndrome is named for Dr. Hans Asperger. People with this disease show autistic features like obsessive behaviors or lack of social and communication skills. The in dictators are different from one child to another.

The main Symptoms of Asperger’s are as
- Usual brain ability.
- Awkwardness.
- Real, scholar speech.
- Need of common sense.
- Usual or even early speech development.
- Nonverbal skills better than verbal ones.
- Fanaticism of change.
- Nervousness.

2.1.4 Children disintegrative disorder
We have another kind which is entitled childhood disintegrative disorder which is very rare. It commonly occurs in boys around three or four years. Its symptoms are regression of skills, loss of bowel and bladder control as well as seizures (Daniels, 2006:7) [6]. The rare condition which is featured by the late onset progress is known as childhood disintegrative disorder (CDD). CDD is a rare condition, with only 1.7 cases per 100,000. (Fombonne, 2002) [21].

A child with this disorder will develop normally until some point in time in which his development will stop for two years. At the age of ten, the child will lose two of the following six functional areas (ibid).
- The ability to produce and transform messages
- The ability to understand what the others say
- The ability to cure by himself
- Control over bowel and bladder
- Skills of playing
- Speed skill

The shortage appears in at least two of the following three areas:
- Communication with others
- Communication
- Behavioral of repetition

2.1.5 Rett syndrome
The other rare disorder is Rett syndrome which specifically occurs in girls and affects most aspects of child's life: their ability to speak, walk, eat, and even breathe easily. The main trait of this disorder is repetitive hand movements. Between six to eighteen months the symptoms will appear. It is caused by changes on the X chromosome on a gene called MECP2. There are more than 900 different changes found on the MECP2 gene. Most of these mutations are found in eight different “hot spots.” There is one case among 10,000 female births, and is even rarer in boys. (Drive, 2022) [5], Kanner's Syndrome is another kind of autism named for Dr. Leo Kanner, according to him, the children who are suffering from this disease are featured by disabilities in one or more of keys areas (Daniels, 2006:7) [6].

3.1 Signs and symptoms of autism
Autism symptoms typically become clearly evident during early childhood, between 12 and 24 months age. However, symptoms may also appear earlier or later. Early indicators may involve a marked delay in language or social development. Repetition behaviors and difficulties in interaction are symptoms of those who are suffering from autism. There are a number of behaviors that found in most people with autism.

Those may include:
- eye contact will be little
- Avoid listening or looking to people
- Do not share the enjoyment with others
- Disable to respond directly to people
- Less able to return back to conversation
- Do not give the others chance to respond
- The difference between their facial expression and what is said
- Their voice like a robot
- Less able to understand others' point of view

Behaviors which are repeated may include
- specific behaviors will be repeated
- Less interest about the details, or facts
- More interest with parts of objects
- Do not like change in routine
- Their sensitivity towards a number of things. They may have problems with sleeping or noise. In spite of those shortages, they may also have many strengths, including (ibid):
- Details and long remember can be considered as their strength
- Being strong visual and auditory learners
- Do extremely well in math, science, music, or art

Boys and girls are suffering from less attention equally. While infants still using their hands to keep objects. In older children, there may be grabbing, pinching, and biting. The attention of children to facial expression is less when it is compared with their attention towards objects.

Other symptoms include
- Stoppage development
- Inability to use words.
- Difficulties in movement
- Usually small head

People who have difficulties in speech are suffering from apraxia. This person has problem planning and producing the precise highly refined and specific series of movements of the tongue, lips and palate. Children may have uneven
profile of skills. They usually have cleverness (Turkington & Anan, 2007:5-7) [17].

3.2 Causes of autism
There are many reasons and variety of symptoms for this disorder. Those causes can be genetic or environmental ones. The participation of genetic causes are about 10% to 20% of cases. This happens by changing the genetic code. Risk factors include older parental age, low birth weight, prematurity and maternal use of valproic acid or thalidomide during pregnancy, among others.

- Genetics. Genetic disorder is the first reason for autism and sometimes may be the genetic changes. The communication is affected directly by autism. (ibid).
- The environmental causes can be considered as main reasons for people with autism especially in pregnancy stage. (ibid).

There is no one single reason for autism. It presents at birth. It is caused by abnormalities in the brain and may be genetic. Those reasons are still debate. There are a number of theories:

It is hereditary
- This disease may run in families since families with multiple children often have one child on whom it appears the symptoms of autism. Parents may show signs of autism.

Unstable genes
- Some believe that cluster of unstable genes that affect the development of the brain may cause autism.

Pregnancy or birthing
- Sometimes it is occurred because of difficulties occurring during the pregnancy or birth process is also being investigated.

Toxins
- It is ingested by the mother during pregnancy.

Environmental factors
- Some scholars investigate the idea that autism may be caused by environmental factors such as viruses.
- Hereditary damage causes autism.
- Inoculation causes autism.
- Autoimmune disease causes autism.
- Mitochondrial disease causes autism. (Daniels, 2006:8).

3.3 Treatment
There are a number of ways to deal with people with autism
- Raise behaviors
- Instruct modern skills
- Teach self-independent.
- Change behaviors.
- Decrease unnecessary movements.
- Family members and friends play an important role in curing. It is important to begin before the age of five (Turkington & Anan, 2007:7) [17].

4. Methodology
This section is devoted to the analysis and discussion of the elicit data of the autistic children. It deals with the ferries that are analyzed according to the model of the study.

4.1 Data description and model of the study
The study aims to identify common linguistic behavioral problems among children with autism in Thi-Qar. Al-Kiki, (2011) scale consisting of (32) items is used as a model in this study. It includes common behavioral problems among autistic children. The scale is acceptable, reliable and valid for the purposes of this study. The study samples consisted of (8) participants, (4) boys and (4) girl, used as a case study. The use of the questionnaire is directed for worker since inters specialized in dealing with children with autism in Thi-Qar was also used in this study.

3.2 Data analysis and discussion
The following table shows the results of frequencies and percentages of analytical data.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Ferries</th>
<th>Apply to it To a great extent</th>
<th>Apply to it degree medium</th>
<th>Apply to ITTO as mall degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Prefer to be alone</td>
<td>71.4%</td>
<td>28.6%</td>
<td>0</td>
</tr>
<tr>
<td>2.</td>
<td>Doesn’t care about his relationship with other kids.</td>
<td>57.1%</td>
<td>42.9%</td>
<td>0</td>
</tr>
<tr>
<td>3.</td>
<td>He finds it hard to talk when he /she wants something</td>
<td>42.9%</td>
<td>24.9%</td>
<td>14.3%</td>
</tr>
<tr>
<td>4.</td>
<td>Other children do not participate in the social events (trips, holidays, parties)</td>
<td>42.9%</td>
<td>28.6%</td>
<td>28.6%</td>
</tr>
<tr>
<td>5.</td>
<td>He repeats some of the words or phrases that are said to him / her</td>
<td>71.4%</td>
<td>28.6%</td>
<td>0</td>
</tr>
<tr>
<td>6.</td>
<td>Other children do not participate in play</td>
<td>46.5%</td>
<td>22.7%</td>
<td>20.9%</td>
</tr>
<tr>
<td>7.</td>
<td>He doesn’t care about those around him</td>
<td>58.6%</td>
<td>40.3%</td>
<td>10.4%</td>
</tr>
<tr>
<td>8.</td>
<td>Does not resort when he/she needed to seek help from those around</td>
<td>0</td>
<td>82.7%</td>
<td>14.3%</td>
</tr>
<tr>
<td>9.</td>
<td>Does not use signs or gestures to express hard-to-pronounce words</td>
<td>28.9%</td>
<td>0</td>
<td>42.9%</td>
</tr>
<tr>
<td>10.</td>
<td>Do not imitate other children at play</td>
<td>28.5%</td>
<td>40.6%</td>
<td>10.9%</td>
</tr>
<tr>
<td>11.</td>
<td>He doesn’t focus his eyes on anyone</td>
<td>42.9%</td>
<td>42.9%</td>
<td>14.3%</td>
</tr>
<tr>
<td>12.</td>
<td>(shakes) (head, leg, body) for no reason Clear</td>
<td>85.7%</td>
<td>14.3%</td>
<td>0</td>
</tr>
<tr>
<td>13.</td>
<td>Appears not to listen to others</td>
<td>88.9%</td>
<td>20.3%</td>
<td>0</td>
</tr>
<tr>
<td>14.</td>
<td>Laughs, giggles, murmurs (for no apparent reason)</td>
<td>57.1%</td>
<td>42.9%</td>
<td>0</td>
</tr>
<tr>
<td>15.</td>
<td>His relation to certain things (a toy, a doll with a blank piece of cloth on it)</td>
<td>57.1%</td>
<td>42.9%</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 1: Frequency and percentage of the analyzed data
Laughing, giggling, or caring for no apparent reason
It relates to a specific object such as a toy, pillow or blanket

He shakes (his head-body-leg) for no apparent reason
Other children do not participate in events and parties such as Christmas

Prefer to be alone
He repeats some of the words or phrases that are said to him

Table (1) and pie charts above show that the children of autism have less interest in learning language than other people. They focus on movements objects around them more than contact with people. Autistic children prefer to be alone. Their percentage is about 71.4%. They repeat some of the words or phrases that are said to him and their percentage is also about 71.4%. They don't care about those around them and appear not listen to Others. The percentage of this ferry is about 88.9%. We can notice the previous table that there is a difference in the behavior of autistic children from ordinary children, for example, They find it difficult to express what they want or they repeat the same words or expressions that are said to them. Sometimes they use signs to express difficult words to pronounce. Some of them shake their heads for no apparent reason or laugh, not caring for those around them, and many tend to isolate and not form social relationships with others.

To learn toulouse language is one way to help those children. The definition of autism is expanded to include series of traits such as problems in social communication. There is improvement in treating those who are suffering from autism.

3.2 Result
By analyzing the expressions produced by the autistic children, the following results are arrived at:
1. The impact of the classroom environment on the autistic children for reducing linguistic
2. Behavioral problems.
3. Holding workshops for families of people with autism, workers and specialists, on methods to identify linguistic behavioral problems
4. The autistic children suffer from problems with communication and social interaction, and restricted or repetitive patterns of behavior or activities.
5. Problems with communication and social interaction include: issues with communication, including difficulties sharing emotions, sharing interests, or maintaining a back-and-forth conversation.

6. There are issues with nonverbal communication, such as trouble maintaining eye contact or reading body language. There are also difficulties developing and maintaining relationships restricted or repetitive patterns of behavior or activities include: repetitive movements, motions, or speech patterns rigid adherence to specific routines or behaviors.

7. There is an increase or decrease insensitivity to specific sensory information from their surroundings, such as a negative reaction to a specific sound fixed interests or preoccupations.

8. Individuals are evaluated with in each category and the severity of their symptoms is noted.

References
14. In 2013, the American Psychiatric Association merged four distinct autism diagnoses into one umbrella diagnosis of autism spectrum disorder (ASD). They included autistic disorder, childhood disintegrative disorder, pervasive developmental disorder—otherwise specified (PDD-NOS) and Asperger syndrome. /https://www.autismspeaks.org/what-autism/