Prevalence of autism among school children in selected schools at Nellore, Andhra Pradesh

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Abstract
Background: Autism is a genetic disorder of neuronal organization occurring more frequently in boys than girls chromosomal abnormalities are present in 5% - 6% of children with autism that is they develop language slowly or not at all. Autism is a severe development disorder with neurologic perceptual, psychologic and behavioral dysfunction in the child under 30 months of age.

Aim: The aim of the study was to assess the prevalence of autism among school children in selected schools.

Objectives: To determine the prevalence of autism among school children in selected schools at Nellore. 2. To find the association between prevalence of autism among school children with their socio demographic variables.

Methodology: 100 school children aged 5-15 years and studying in Govt. School were selected by using Non-probability convenience sampling technique method.

Results: Regarding the prevalence rate of autism among school children, 98 (98%) of them had no autism and only 2(2%) of children had symptoms of autism.

Keywords: Prevalence, autism, school children, schools

Introduction
Autism is a genetic disorder of neuronal organization occurring more frequently in boys than girls chromosomal abnormalities are present in 5% - 6% of children with autism that is they develop language slowly or not at all. Autism is a severe development disorder with neurologic perceptual, psychologic and behavioral dysfunction in the child under 30 months of age.[1]. Approximately 80% of people with autism also are classified as mentally retarded. They often have some degree of sensory impairment including sensitivity in the areas of sight, taste, hearing, touch or smell. Autism is not a disease but a syndrome of associated behaviors. It result from some condition that affects the development of the nervous system, and it remains with the individual throughout life.[2]. Autism is diagnosed when the child has serious problems with social interactions verbal and nonverbal communication and use of imagination and demonstrates a markedly restricted scope of activities and interests. The onset of autistic signs and symptoms begins in infancy or early childhood. Autistic disorders affect children from all classes and groups. Typically, autism is seen four times more frequently in boys. The majority of autistic children measure low on IQ tests, with 60% measuring below an IQ of 50% – motor skill development may be good, but the child’s use of motor skill is inappropriate[3]. No single behavior or symptom is diagnosed as autism. Behavior must be considered in relation to the whole child and his/her functioning. Monitoring children’s early social responses communication skills, and behaviors allows health care providers to interfere early when a problem is suspected. The outstanding feature of autism is its deviance and its different behaviors. Autistic children’s behaviors are not normal or average.[4].

Need for the Study
Autism is a genetic disorder or neuronal organization occurring more frequently in boys than girls. It is a severe developmental disorder with neurologic perception, psychologic and behavioral dysfunction in the children. It is the most prevalent developmental disorder worldwide with up to 80% of the world population living in epidemic regions. The 20% of children with autism have seemingly normal growth & developmental until 2-3 years of age. The other 80% of cases of autism are early onset, with developmental delays starting in infancy[5].
Autism was once thought to be rare and was estimated to occur in 4-5 children per 1,000 to one in 500 us, children from 1-15 yrs of age have autism (National institute of child and human development 2002) Hence the investigator presume that there is lack of knowledge regarding the disease condition is autism \[6\].

An epidemiologic study was conducted on prevalence of autism among children with the age of 3-10 yrs in 2010 U.S California University. The result shown that the prevalence of all autism spectrum disorders combined was 6.7 cases from 1000 children. The prevalence of children’s whose condition met full diagnostic criteria for autistic disorder was 4.0 cases per 1000 children. And the study concluded that the observed point prevalence is higher than previous us estimates \[7\].

**Problem Statement**

A study to identify the prevalence of autism among children in selected schools in Nellore A.P.

**Objectives**

- To determine the prevalence of autism among school children in Nellore.
- To find the association between prevalence of autism among school children with their socio demographic variables.

**Methodology**

**Research Approach**

A quantitative approach was adopted to determine the research study.

**Research Design**

The present study was conducted by using descriptive research design

**Setting of the Study**

The study was conducted at selected schools in Nellore.

**Target Population**

The target population for the present study was school children.

**Accessible Population**

The accessible population for the present study was school children aged 5-15 years and studying in Govt. School, Nellore and who fulfilled the inclusion criteria.

**Sample Size**

The samples consists of 100 school children.

**Sampling Technique**

Non-probability convenience sampling technique was adapted for the study.

**Criteria for Sampling Selection**

**Inclusion Criteria**

- School children aged 5-15 yrs.
- Children who are present in school at the time of data collection

- Children of both male and female.

**Exclusion Criteria**

- Children who are not available in the school at the time of data collection
- Mothers of children and teachers who are not willing to participate in the study.

**Variables of the study**

- **Research variable:** The prevalence of autism.
- **Demographic variables:** It includes age, gender, class, family history of autism, developmental stage, history of perinatal complication, type of delivery and gestational age.

**Description of the Tool**

**Part-I:** Socio demographic variables.

**Part-II:** This consists of observational checklist on signs and symptoms of autism.

**Data Analysis and discussion**

**Table 1:** Frequency distribution of prevalence of autism among school children. (N=100)

<table>
<thead>
<tr>
<th>S. No</th>
<th>Prevalence of autism</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>No autism</td>
<td>98</td>
<td>98%</td>
</tr>
<tr>
<td>2.</td>
<td>Mild autism</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>3.</td>
<td>Moderate autism</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4.</td>
<td>Severe autism</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Fig 1:** Frequency distribution of prevalence of autism among school children.

**Table 2:** Mean and standard deviation of prevalence of autism among school children. (N=100)

<table>
<thead>
<tr>
<th>Prevalence of autism</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>School children</td>
<td>7.21</td>
<td>5.114</td>
</tr>
</tbody>
</table>

**Major findings of the study**

- Regarding the prevalence rate of autism among school children, 98 (98%) of them had no autism and only 2(2%) of children had symptoms of autism.
- The mean prevalence rate of autism among school children was 7.21 and standard deviation was 5.114.
- Regarding association with demographic variables, family history of autism and type of delivery had
significant association with prevalence rate at $P<0.05$
level.

Conclusion
The study concluded that most of the children 98(98%) of
them had no autism and only 2(2%) of children had
symptoms of autism.

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