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PREVALENCE OF DROOLING AMONG CHILDREN WITH CEREBRAL PALSY

Rehabilitation Science

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ABSTRACT

Cerebral palsy is one of the most prevalent neurological disorder and the most frequent cause of disability. Cerebral palsy is a leading cause of disability and could be challenging to cure throughout life. Cerebral Palsy may result from numerous conditions. Genetic abnormalities may lead to brain malformation in the early stages of embryonic development, Intrauterine infection may damage the developing nervous system of fetus. Pregnancy – related abnormalities may lead to preterm delivery and related complication that are association with the later emergence of cerebral palsy. Drooling is one of the more common associated dysfunctions in children with cerebral palsy. Children with cerebral palsy are unable to control their swallowing muscles or wipe away their saliva. Drooling occurs when saliva flows outside the mouth, defined as "saliva beyond the margin of the lip". Drooling can either be related to a central neurogenic problem, as in cerebral palsy, in which there is poor coordination of the muscles of deglutination, or be related to a peripheral nerve lesion, such as in facial nerve or glossopharyngeal nerve palsy. Researcher used descriptive study design to find out the prevalence of drooling problems and the concerns of parents of cerebral palsied. The universe for the present study constituted the cerebral palsied in selected localities of Trichy District of Tamil Nādu. Sampling strength was about 130 in Spastic society Trichy and 37 in Thuraiyur Spastic society. Self-prepared questionnaire was prepared for the collection of data. Out of the total sample about 59 percent of children with cerebral palsy were having problems of drooling. About 50 percent of the sample face difficulties in taking food due to drooling. Majority of the sample are not taking medication for the prevalence of drooling. 60 percent of the families are affected socially due to drooling of their child with cerebral palsy.

KEYWORDS

Cerebral Palsy, Drooling, Disabiility, Rehabilitation

INTRODUCTION

Cerebral Palsy can be defined as a disorder of movement or posture due to deficit abnormality of the brain which initially becomes evident in childhood. The abnormality of the brain responsible for the condition does not change and does not become more sever. The pattern of the movement disorder does change with time. In addition, there may be abnormalities of sight, hearing. speech and sensation. Many factors may be responsible for the condition. The causes or causes, in any given case, may be factors acting or occurring before, during or after birth. This risk of cerebral palsy is higher when there are occurrences such as prebirth infection, blood reactions, prematurity, difficult labor, lack of oxygen at birth, trauma in childhood and post birth infection.

Drooling is one of the more common associated dysfunctions in children with cerebral palsy (CP) and is perhaps the most problematic socially. Drooling beyond the age of 4 years is neurodevelopmentally abnormal. Chronic "sialorrhea" is seen in children with abnormal oral sensation and/or motor control and more infrequently when there is excessive production of saliva. Salivary production from the paired glands is under autonomic parasympathetic control. In children and youth with cerebral palsy (CP), sialorrhea is usually the result of limited oral motor control as a result of muscle incoordination and sensory perception difficulties rather than excessive salivation.

Drooling indicates an upset in the neuromuscular incoordination control mechanism of swallowing leading to too much saliva in the anterior mouth and causing involuntary saliva to drain out of the mouth. Drooling children with cerebral palsy for a variety of reasons, including: abnormalities in swallowing, difficulties moving saliva to the back of the throat, poor mouth closure, jaw instability, tongue thrusting, lack of head control and poor posture, lack of sensation around the mouth, breathing through the mouth, excitement and impaired concentration. Drooling varies in severity and can be distressing for the children, families and caregivers. Excessive drooling can cause constant damp soiled clothing, unpleasant odor, irritated, chapped or sore skin around the mouth and chin, skin and mouth infections, dehydration, difficulties chewing. Children with cerebral palsy who are unable to control their swallowing muscles or wipe away their saliva, treatment often includes medicines which help to dry up the secretions. Botulinum toxin injections to the saliva glands can also be helpful; however, repeated injections are typically required approximately every 6 months. Surgical interventions may also be recommended. Drooling of CP individuals with spastic quadriplegia was greater in CP individuals with than other functional capacities, and the prevalence of drooling was higher at younger ages. An auditory tone stimulus can be used as the cue for the children with cerebral palsy to monitor their muscle tone and swallowing frequency. Many interventions are used to reduce or eliminate drooling. These include surgery, medications, botulinum toxin. Physical therapies, therapies to improve sensory functions.

Significance

Drooling in cerebral palsy is a common problem in the Cerebral Palsy, there are negligible studies available in this topic .This study would focus on the aspect of the drooling problems seen in the cerebral palsied children's and will help us to know about what are the methods and techniques used by parents and therapies to reduce the problems caused by drooling. These problems can cause and distressing for the children, families and caregivers. This study can be a really useful tools to find out how much is frequent drooling in the Cerebral Palsy. This study will help in understanding how effective and beneficial techniques and methods that can be used to control drooling among children with Cerebral Palsy.

Methodology

Research Design -

The research design was a descriptive study to find out the prevalence of drooling problems and the concerns of the parents with cerebral palsy children.

Universe-

The universe for the present study constituted the cerebral palsied in selected localities of Trichy District of Tamil Nādu and Thuraiyur. Hence a total of 130 in Spastic society Trichy and 37 in Thuraiyur Spastic society children with cerebral palsy from these Institutions constituted to form the universe of the study.

Variables

- Age
- Gender
- Rural/Urban
- Parental Occupation.

Tool of The Study

The tools selected for the study is a self-prepared rating scale developed in consultation with the research guide. The prepared rating scale was sent to subject experts and field fundamental to establish its

content validity. The rating scale was prepared in a such away to find out prevalence of drooling and its related problem in children with cerebral palsy.

Data Analysis

Frequencies and percentages were used to analyze the study. Researcher used statistical package in social science for Interpretation, analysis and generation of results.

Major Findings Of The Study

- Out of the total sample about 59 percent of children with cerebral palsy were having problems of drooling.
- About half of the sample of children drool on daytime.
- About 50 percent of the sample face difficulties in taking food due to drooling.
- There were less percentage of children with drooling problems in speaking the percentage of which were about 26 percent.
- Drooling problems were founded as rare during sleeping.
- Majority of the sample are not taking medication for the prevalence of drooling.
- Researcher found small percentage of children with cerebral palsy getting irritated due to the drooling.
- Researcher also found that most of the children keeps their lips together for the long time.
- Most of the children with cerebral palsy about 66 percent suffer from epilepsy or the fits and most of the children were taking medicine for the same.
- 60 percent of the families were affected socially due to drooling of their child with cerebral palsy

Limitation Of The Study

- There may be the chance errors as the study was conducted through the interview method.
- The sample size is very minimal when compared to the entire children with cerebral palsy. Thus, the results of this study cannot be generalized with others.

Suggestions For Further Research

- Effective pharmacological and non-pharmacological management of drooling in children with cerebral palsy.
- Study on problems faced by the parents in dealing with children with cerebral palsy.
- Study on problems face by the special educators in dealing with children with cerebral palsy.

CONCLUSION

The study revealed that the most of the children with cerebral palsy suffer the problems of drooling intensely. Due to the drooling children face difficulties in swallowing of food and drinking tea or water. Children also face difficulties in speaking due to drooling. The study also revealed that most of the children with cerebral palsy having problems of drooling does not take medication irrespective of having medicine available for the same. Also, there are various therapies for the management of drooling but unfortunately most of the parents does not prefer. Further need of awareness and counselling as well as guidance of parents having children with cerebral palsy is the need of hour.

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Conflict Of Interest:-

We Declare that there is no potential conflict of interest with respect to this research study.

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