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Original Research

Evaluation of dmft score in visually impaired children

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***ABSTRACT*:**
Background: Visual impairment is a decreased ability to see. The present study was conducted to evaluate dental caries pattern in visually impaired children. **Materials & Methods:** The present study was conducted in the department of Pedodontics. It comprised of 280 visually impaired children of both gender. A careful oral examination was done and dmft score was recorded.
Results: out of 280 patients, boys were 160 and girls were 120. 60 patients were partial blind and 220 were total blind. The difference was significant (P< 0.05). The mean dmft score in partial blind patients was 2.12 and in total partial patients was 4.39. The difference was significant (P< 0.05). **Conclusion:** Authors found that visually impaired children have higher prevalence of dental caries.
Key words: Dental caries, dmft, visually impaired

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INTRODUCTION

Visual impairment (or vision impairment) is a decreased ability to see. Around 285 million people are estimated to be visually impaired worldwide: 39 million are blind and 246 have low vision. India is among the countries with the largest number of people suffering from blindness or visual impairment.

Oral health is an important aspect in matter of overall health for all children, especially in case of children with special health care needs. These children are always in disadvantage as they are often unable to adequately apply the techniques of controlling plaque and avoiding dental caries. Dental treatment is one aspect which is highly disregarded in case of children with special health needs. Risk factors and stages of development of dental caries are similar though the presentation may be highly variable. According to the Indian National Sample Survey of 2003, about 1.8% were physically, visually, or hearing impaired and visual impairment was the most frequently occurring disability.

Studies have shown that people with disability have a higher incidence of dental caries and consistently poorer state of oral hygiene with various levels of periodontal diseases. The main reason for higher prevalence of dental caries is their inability to visualize plaque and its inadequate removal during oral hygiene procedures which also results in the progression of inflammatory diseases of the periodontium. The present study was conducted to evaluate dental caries pattern in visually impaired children.

MATERIALS & METHODS

The present study was conducted in the department of Pedodontics. It comprised of 280 visually impaired children of both gender. Parents were informed regarding the study and informed written consent was obtained. Ethical clearance was taken from institutional ethical committee.

General information such as name, age, gender etc. was recorded. A careful oral examination was done and dmft score was recorded. Results were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 280		
Gender	**Boys**	**Girls**
Number	160	120

Table I, graph I shows that out of 280 patients, boys were 160 and girls were 120.

Graph I Distribution of patients

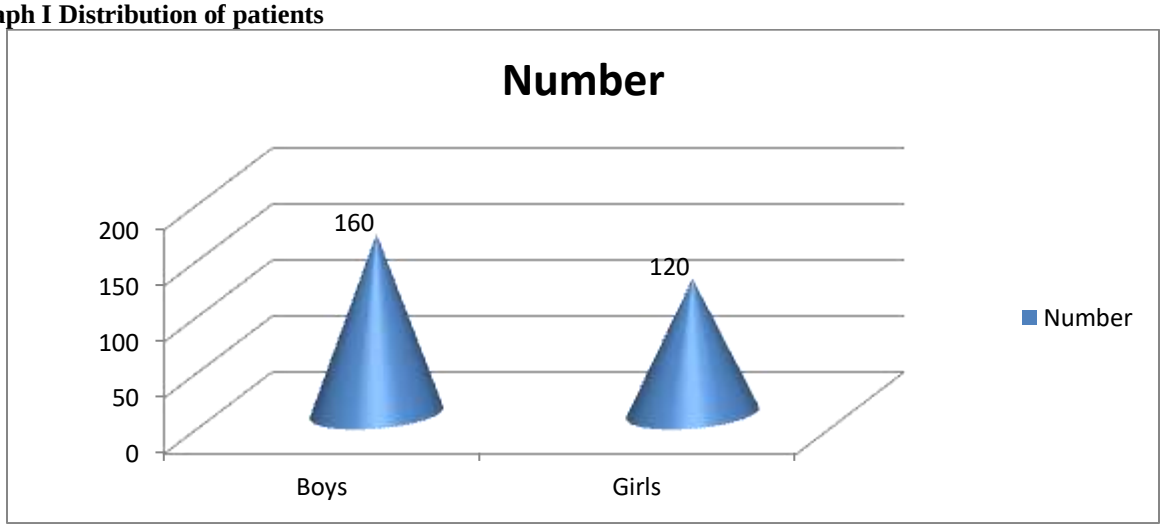

Table II Blindness status of patients

Blindness	Number	P value
Partial	60	0.01
Total	220	

Table II, graph II shows that 60 patients were partial blind and 220 were total blind. The difference was significant (P< 0.05).

Graph II Blindness status of patients

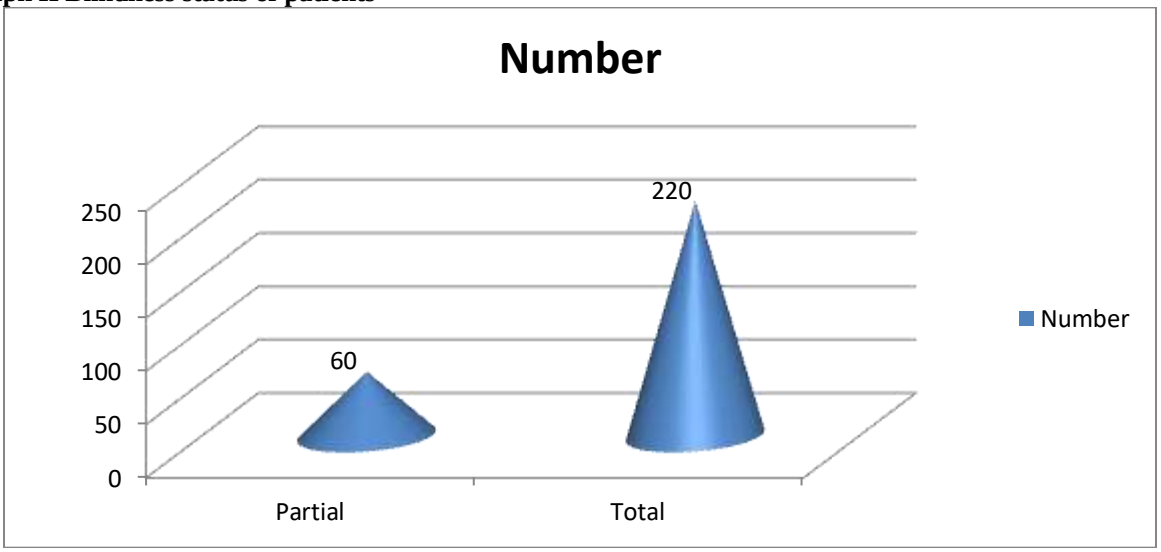

Table III dmft score of patients

Status	Mean dmft	P value
Partial	2.12	0.01
Total	4.39	

Table III shows that mean dmft score in partial blind patients was 2.12 and in total partial patients was 4.39. The difference was significant (P< 0.05).

DISCUSSION

Oral health has a great impact on our overall health including both physical and psychological. The interrelationship between oral and general health has been proven by evidence. The WHO defines quality of life as individual's perception of their position in life in the context of culture value system, in which they live and in relation to their goal, standards, and concerns. A comprehensive National Health Survey conducted in 2004 in India clearly symbolizes that dental diseases are a significant public health burden in India. The psychosocial impact of oral diseases often significantly diminishes quality of life and children are the worst affected group. The present study was conducted to evaluate dental caries pattern in visually impaired children. In this study, out of 280 patients, boys were 160 and girls were 120. Muppa et al[8] in their study a total of 423 visually impaired institutionalized children between the age group of 9–15 years were included in the study. Stratified random sampling technique was used to obtain the study population. Dental caries was recorded using dmft for primary dentition and DMFT for permanent dentition, traumatic dental injuries were assessed using traumatic dental injury index, and dentofacial anomalies were recorded using Angle's classification of malocclusion. The Hindi braille version of C-OIDP questionnaire was used to gather information regarding oral health-related quality of life (OHRQoL). There was a high dental caries prevalence of 57.7% in visually impaired children. The prevalence of traumatic dental injuries was 50.6%. Crowding (61.5%) was the most commonly seen dentofacial anomaly and the most commonly perceived oral health problem was toothache. There was less favorable OHRQoL in males as compared to females.

We found that 60 patients were partial blind and 220 were total blind. The mean dmft score in partial blind patients was 2.12 and in tota partial patients was 4.39. Priyadarshini et al[9] collected information by structured interview of each individual with a barrel shaped questionnaire. Questionnaires were related to their frequency of brushing, brushing technique, type of oral hygiene aids, and frequency of changing toothbrush, tongue cleaning, mouth rinsing and visit to the dentist. Clinical examination was done to record DMFT and OHI-S indices. The oral hygiene practices vary from moderate to low grade. The mean DMF score was 1.58 and complete OHI was 1.21. The D component shows mean score of 1.02 and F component was 0.05.

Sanjay et al[10] conducted a study which also showed similar results with mean DMFT/deft of 2.1/2.0 in visually impaired population. Probable reason for some variations seen in different studies conducted through the latitudes and longitudes in India could be variable access to dental care, inadequate oral hygiene, and many other disability-related factors, their diet, medications, physical limitations, lack of oral hygiene, and attitude of caretaker/parent and health-care providers.

CONCLUSION

Authors found that visually impaired children have higher prevalence of dental caries.

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