



IMPACT OF DENTAL CARIES ON ORAL HEALTH-RELATED QUALITY OF LIFE AMONG 3 to 5-YEAR-OLD PRESCHOOLERS IN ROHTAK CITY, HARYANA

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INTRODUCTION

Early childhood caries (ECC) is defined as “The presence of one or more decayed teeth (non-cavitated or cavitated lesions), missing teeth (due to caries), or filled tooth surfaces in any primary tooth in a child 72 months of age or younger.¹

ECC is associated with deterioration in quality of life among young children.

Some questionnaires have been specifically designed to assess oral health-related quality of life (OHRQoL) in young children.

Among them is the Early Childhood Oral Health Impact Scale (ECHOIS) developed by BT Pahel et al.² to assess the impact of oral disorders on quality of life among preschool children (0 to 5 years of age).

Adults generally make decisions about their children's health. Therefore, assessing parent's perceptions about how oral health problems, including symptoms, disease and its treatment, influence their children's quality of life is important.

• H₀₁: Early childhood caries affect the oral health-related quality of life among preschool children

• To assess the impact of dental caries on oral health-related quality of life among 3 to 5-year-old preschool children in Rohtak City, Haryana

• To determine prevalence of dental caries in preschool children in Rohtak City
• To suggest measures to improve oral health-related quality of life among 3 to 5-year-old preschool children.

MATERIALS AND METHODS

Study Design: Cross-sectional Study

Rohtak City divided into 4 zones

Random selection of 3 schools in each zone

Study Subjects (n = 469)

Questionnaire assessment
Early Childhood Oral Health
Impact Scale (ECHOIS)

Clinical
examination

Child Impact
Section
(9 items)

Family Impact
Section
(4 items)

Caries assessment done
by Caries Assessment
Spectrum and Treatment
(CAST) index

INCLUSION CRITERIA

- Children aged 3-5 years.
- Children present on the day of examination.
- Children whose parents have given informed consent.

EXCLUSION CRITERIA

- Children of parents with poor compliance.
- Children absent on the day of examination.
- Un-cooperative child.
- Child with congenital and developmental anomalies.

STATISTICAL ANALYSIS

Data analysed using SPSS 21

Descriptive statistics and inferential statistics done

References:

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4. Wong HM, McGrath CP, King NM, Lo EC Oral health-related quality of life in Hong Kong preschool children. Caries Res.2011;45(4):370-6
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RESULTS

Distribution of study population

Age group	Male		Female		Total	
	n	%	n	%	n	%
3.0	78	28.8	43	21.7	121	25.8
4.0	119	43.9	86	43.4	205	43.7
5.0	74	27.3	69	34.8	143	30.5
Total	271	57.8	198	42.2	469	100

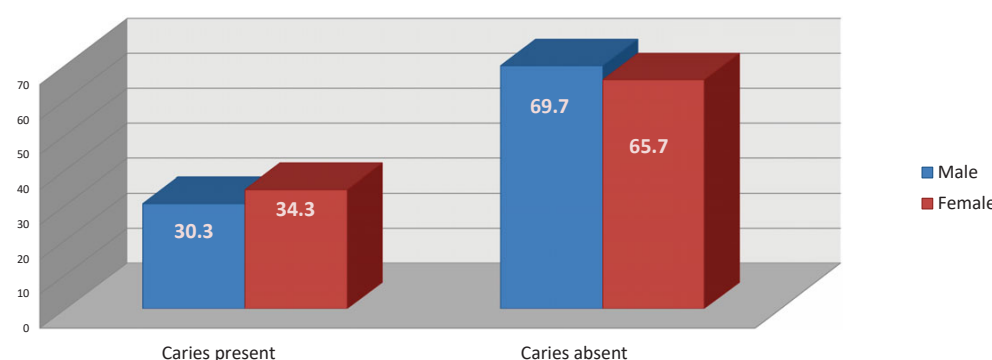
Mean age of study population = 4.047±0.7496

Mean age of Parents

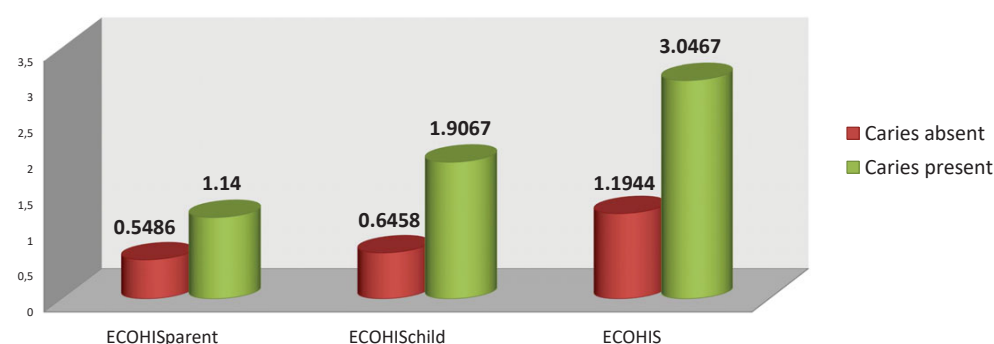
	Males		Females	
	n	Mean age	N	Mean age
Father's age	268	33.32±4.654	198	33.07±4.312
Mother's age	268	29.66±4.275	197	29.31±3.652

	n	d	e	f	Mean def
Male	271	82	14	5	1.052±2.26
Female	198	67	9	10	1.131±2.29
Total	469	149	23	15	1.085±2.27

Caries prevalence



Mean ECOHIS Scores



Cronbach's alpha (ECHOIS) = 0.873

Mann Whitney U was significant.

P value < 0.01

DISCUSSION

The present study evaluated the impact of dental caries on the OHRQoL of preschool children using the Hindi version of the ECHOIS. Prevalence of ECC was 32%, which is higher than Wong HM et al⁴ and lower than Prakasha SS et al.⁷ The mean ECOHIS was lower than Gomes MC et al.⁶ Higher ECOHIS scores are observed in subjects having dental caries than those who are caries free. ECOHIS was correlated to def which was statistically significant and was similar to what was reported by Wong HM et al⁴, Scarpelli AC et al³ and Martin Junior PA et al.⁵ The findings of this present study confirm the hypothesis that ECC adversely affect the OHRQoL among preschool children. Internal consistency of the scale using Cronbach's alpha (0.873) was close to the original version (0.9).² The present study has limitations inherent to the cross-sectional design and answers to the questions may be subject to information bias.

CONCLUSION

Early childhood caries significantly impact the oral health-related quality of life among preschool children. Assessment of the OHRQoL among young children helps to identify needs, which can guide the planning and decision-making process regarding the implementation of strategies for preventive oral healthcare services.