

The Prevalence of Dental Caries in Brazilian Children Aged 0 to 36 Months

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ABSTRACT: Caries experience of 1974 children aged 0 to 36 months participated in the Infant Oral Health Program at the Brazilian University of Londrina's baby clinic was investigated.

Data were collected at baby clinic during 1985 to 1990.

Dental caries is clearly a significant health problem for this population group and it's increased with age. At 12 months of age, about 90 per cent of the children examined were caries free. Over 50 per cent of 36 months old children had clinically dental caries.

Results of the survey indicate the need to develop effective measures to prevent, diagnose and treat dental caries in Brazilian children even before preschool age.

Key words: dental caries, epidemiology oral, prevention.

RESUME: La présence de caries chez 1974 enfants âgés de 0 à 36 mois qui ont participé au Programme de Santé Buccale à la clinique de bébés de l'Université de Londrina au Brésil, a été étudiée.

Les données ont été recueillies à la clinique de bébés pendant la période 1985 à 1990.

La carie dentaire est un problème de santé essentiel et important pour ce groupe de population et il augmente avec l'âge. A l'âge de 12 mois, environ 90% des enfants examinés étaient indemnes de caries. Plus de 50% des enfants de 36 mois présentent des caries.

Les résultats de cette recherche indiquent la nécessité de voir se développer des mesures effectives pour prévenir, diagnostiquer et soigner la carie dentaire chez les enfants brésiliens même avant l'âge pré-scolaire.

Mots clés: Carie dentaire, épidémiologie orale, prévention.

SINOPSE: O estudo analisa presença da cárie dentária em 1974 crianças de 0-36 meses de idade, que frequentaram a BEBÊ-CLÍNICA da Universidade Estadual de Londrina, entre os anos 1985-1990.

A cárie dentária é o problema mais significativa neste grupo e aumenta claramente com o evoluir da idade.

Aos 12 meses de idade, mais de 90% das crianças estão livres de cárie, porém, após 36 meses, mais de 50% deles já possuem a cárie.

Os resultados desta investigação sugerem medidas precoces e efetivas, para o tratamento da cárie dentária.

INTRODUCTION

Dental caries in children is an important major problem on dental health in Brazil, and it's increased with age.

The DMFT index in 12 years old children is 6,65, although data about

caries experience in very young children was not available.

The aim of this study was to investigate caries experience of 1974 children aged 0-36 months participated in the Infant Oral Health Program at the Brazilian University of Londrina's baby clinic.

MATERIAL AND METHOD

The Infant Oral Health Program at the University of Londrina, south of Brazil, has been in operation

since 1985.

Data were collected at baby clinic during 1985 to 1990 by clinic's pedodontists attended a standardisation course before commencing their individual examination. (TABLE 1)

A total of 1974 children aged 0-36 months was examined. Mouth mirror, sharp explorers artificial and natural light were used for the examinations. Compressed air was used to dry tooth surfaces before caries diagnosis. All examinations

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| Age (months) | Pop. (n) | Caries (n) % | Trauma (n) % | OML (n) % |
|-----------------|-------------|-----------------|-----------------|--------------|
| 0 --- 6 | 186 | 3 1,61 | 2 1,08 | 11 5,91 |
| 7 --- 12 | 365 | 18 4,93 | 61 16,71 | 19 5,21 |
| 13 --- 18 | 407 | 58 14,25 | 74 18,18 | 12 2,95 |
| 19 --- 24 | 513 | 166 32,36 | 99 19,30 | 19 3,70 |
| 25 --- 30 | 379 | 173 45,65 | 57 15,04 | 10 2,64 |
| 31 --- 36 | 124 | 58 46,77 | 21 16,94 | 01 0,81 |
| Total | 1974 | 476 24,35 | 314 16,06 | 72 3,61 |

TABLE 1: Composition of the sample by age, the number and percentages of children with caries traumatic injuries and oral mucosal lesions university of Londrina's Baby Clinic - Brazil.

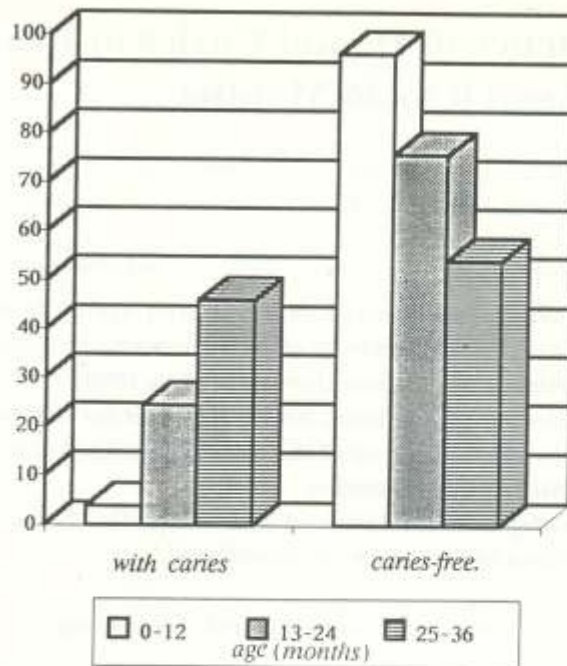


FIGURA 5 - Per cent caries-free and with caries for each yearly age group University of Londrina's Baby Clinic - Brazil.



FIGURA 1 - "Macri Equipments" developed by University of Londrina for this age patients.



FIGURA 2 - Macri Equipments developed for baby patient.



FIGURA 3 - Macri Equipment developed for baby's radiology.



FIGURA 4 - Caries lesion.

RESULTS AND DISCUSSION

The age range of 1974 children and the number of subjects in Table I, which also shows the frequency of caries, Traumatic Injuries (TI) and Oral Mucosal Lesions (OML). At 12 months of age, over 90 per cent children were caries-free. However, almost, 50 per cent of 36 months old children had clinically dental caries. The percentage of caries-free subjects decreased dramatically with age. Fig. 5 gives a graphical representation of this finding.

Fig. 6 shows the prevalence rates of dental caries, TI and OML according to age. Dental caries rises from 6 to 36 months of age and after the third semester of life caries is by far the most prevalent disease.

The frequency of caries by year in all patients examined is presented in Fig. 7.

These results indicate the need to develop effective measures to prevent, diagnose and treat dental caries in Brazilian children even before preschool age.

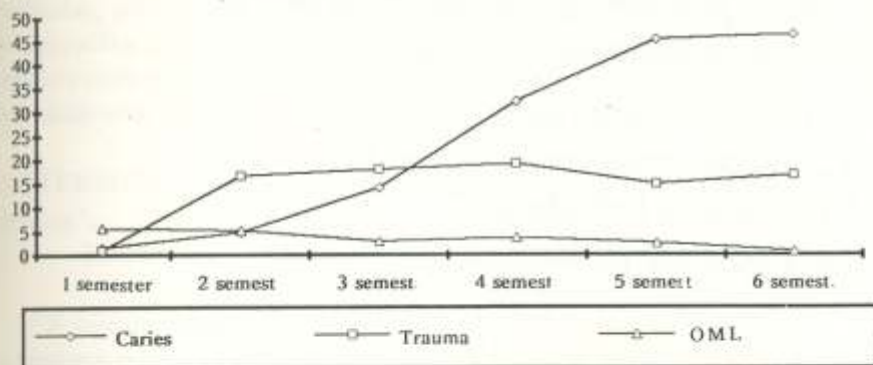


FIGURA 6 - Dental caries, traumatic injuries & oral mucosal lesions from the first to the sixth semester of life university of Londrina's Baby Clinic - Brazil.

were made by the use of the "MACRI EQUIPAMENTOS" (Fig 1-2-3).

Caries lesions were diagnosed by changes in enamel translucency and if the probe caught in a sus-

picious area, pit or fissure (Fig. 4).

In order to compare caries progression with others frequent problems in childhood, traumatic injuries and oral mucosal lesions were also recorded.

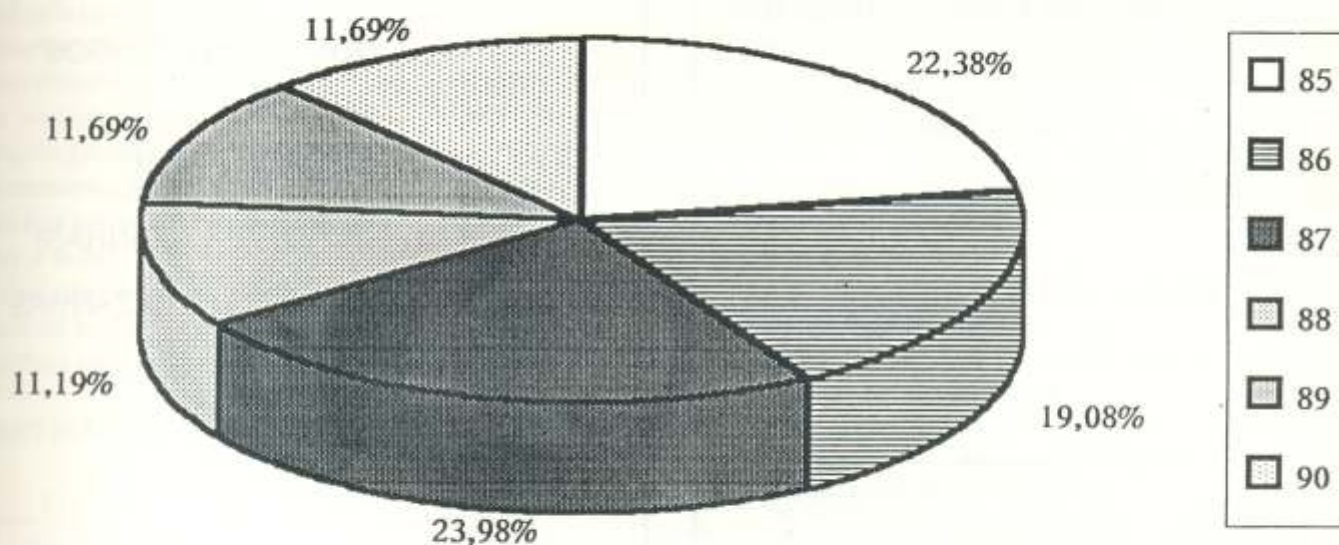


FIGURA 7 - Dental caries - variation by year - 1985 to 1990 University of Londrina's Baby Clinic - Brazil.