
THE IMPORTANCE OF SOCIO-ECONOMIC FACTORS IN ANALYZING THE DENTO-PERIODONTAL STATUS OF CHILDREN FROM POVERTY-STRICKEN FAMILIES IN SIBIU ARCHDIOCESE

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Abstract

The dento-periodontal affections constitute a public-health problem, not necessarily in view of individual-cases severity, but on account of their prevalence among the population. Research has shown that 60-90% of the school-age children suffer from cavities, along with almost 100% of adults. Though the aetiology of dental cavities and periodontal diseases is the result of a multitude of factors and it is especially caused by microbes, the socio-economic factors also play an important role in the onset of oral and dental affections. Our study starts from assessing the status of dental-caries (frequency, distribution, availability of dental-health service and prevention actions) in children from economically-disadvantaged families found out in Social Service data-base of Orthodox Archdiocese of Sibiu. Our goal is to underscore both clinical and descriptive epidemiologic aspects of dental cavities in the chosen population sample, the main risk factors and causal factors, along with their contribution in producing dental caries, as well as the protection factors – social ones including. The study was performed on a group of 75 school-age children from economically-challenged families, divided according to their age and sex, as well as in view of the seriousness of the dental lesions and on the most affected teeth. The results were compared to those of a control group of 81 school-age children from families who did not face social problems. The results revealed a greater frequency of dental cavities among children from needy families, especially of the complex lesions.

Keywords: dento-periodontal status, school-age children, socio-economic factors

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1. Introduction

Studies have shown a series of factors being enemies of health and allies of poverty [*The World Health Report*, 2002]. A major desideratum of both world and national health policies is that of finding ways of increasing the addressability and accessibility of medical services, especially of dental medicine ones. The children from needy families do not always get informed on health matters [1]. Wherever there is a lack of family advice on health-maintaining habits, due to poor/deficient material and educational recourses, the dental physician needs to play a very important substitutive role.

Health should not be considered an addendum to the development of a country; it is a priority of social progress, and oral health has its own share in the well-functioning of our organism [2]. Another major objective of health policies is to have Dental medicine meeting the needs of the community and level up the social inequities, in providing ‘health for all’ [3].

By opening new vistas for the prophylactic and curative activities in the field of dental medicine, one can provide greater health support to the lesser affluent social groups, which also lack socio-educational support in developing independent-life abilities and habits, while helping them regain self-confidence and self-esteem. Providing quality dental health services is a prerequisite in improving the quality of these beneficiaries’ life, especially when considering their low socio-economic means. While children raised in socio-economic challenged families know that the most important factor in oral hygiene is tooth-brushing, they do not know how to perform it [4].

2. Method

The employed method is a case-control retrospective and observational epidemiologic processing of data, which is being used in order to find out whether exists or not an epidemiologic correlation between the socio-economic determinants and the prevalence of simple and complicated dental cavities among school-age children from economically-challenged families.

This study was performed on two groups of children, as follows:

The sample group numbered 75 children, 39 girls and 36 boys, from 6 to 18 years old, coming from poverty-stricken families found out in Social Service data-base of the Orthodox Archdiocese of Sibiu.

The children included in this group met the social criteria of growing in low-income families, living with their parents and two or three other brothers and/or sisters in a 16-square-meter room, sharing the bathroom with several other families.

The control group comprised 81 similarly-aged children, 42 girls and 39 boys, which experienced no social problems.

Based on the mixed or permanent types of dentition, the particulars of the young teeth, as well as on psychological factors related to child and teenager behaviour development, we subdivided the two groups in the following age

groups: 6-8, 9-11, 12-14 and respectively 15-18 years old. The same data-collection methods were employed for all of the children in the study. The *accuracy of information* was based on patients' dentistry records, anamnesis, and clinic examinations. The results were marked in the patients' medical files. In order to show the impact of socio-economic factors on the oral health status of these children, we kept track of:

- the time of their first appointment with the dental physician,
- the reason for that appointment,
- the presence of simple and complicated dental cavities,
- the affectation of the six year molars

3. Results and Discussion

3.1. The time of the first appointment with the dental physician

Notable differences have been observed in so far as the first appointment with the dental physician was concerned.

There exist sex-related differences among children within the same subgroup; for example, more than 50% of the boys in the control group first checked with a dental physician when 6 to 11 years-old, by far in larger numbers than the girls in the same group.

In the sample subgroup of children aged 12-14, the girls made earlier appointments with dental physicians than the boys.

There exist significant differences between the sample and the control group. Over 74% of the children in the sample group had their first appointment with the dental physician when over 15 years old, usually alone or accompanied by their elder brothers or sisters and rather rare by their parents, whereas 45% of the children in the control group had their first appointment with the dental physician when 6 to 11 years old.

There exist differences between the boys in the two groups. Over 50% of the boys in the sample group went for their first appointment with a dental physician when 15 to 18 years old, whereas over 50% of the boys in the control group have been first taken by their parents to the dental clinic when they were 6 to 8 years old.

3.2. The reason for the first appointment with a dental physician

The children in the sample group have had their first appointment with a dental physician mostly after turning 12 years old especially for toothaches or physiognomy-related issues.

There are no significant differences from what have been observed in the control group, though most of the children in this group have been taken to the dental clinic by their parents when 6-8 years old for routine check-ups, after the eruption of their teeth.

In both groups, children aged 15 or older had their first appointment with a dental physician for the same reasons: pain, as a result of complicated lesions, or physiognomy-related issues, resulting from cavities in the front teeth.

3.3. Simple dental-cavity treatment

The distribution of simple tooth cavity treatment on age groups is presented in Figure 1.

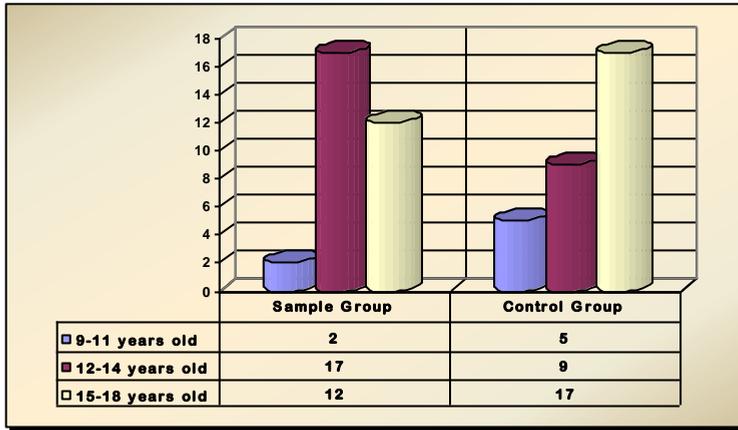


Figure 1. Comparison of simple tooth cavity treatment on age groups.

Table 1. List with complicated dental-cavities treatments.

Age group (years)	Number of dental treatments done to a patient for complicated decays	Group (patients)		Total number of treated patients
		Sample Group	Control Group	
9-11	1	2	-	2
	2	-	2	2
Total		2	2	4
12-14	1	1	2	3
	2	3	2	5
	3	-	1	1
	6	1	-	1
Total		5	5	10
15-18	1	5	4	9
	2	4	2	6
	3	1	1	1
	6	1	1	1
Total		11	8	17

Simple treatments were predominant among the 12 to 14 years old children in the sample group and among the 15 to 18 years old patients in the control group. As a result of having earlier appointments with dental physicians

and of being instructed on how to brush their teeth correctly, the children in the control group had fewer dental cavities when 12 years old.

3.4. Complicated dental-cavities treatments

As shown in Table 1, only two of the patients in the control group needed already, when 9 to 11 years old, to be treated for complicated dental cavities. Among the 17 patients aged 15-18 and treated for complicated tooth decays – 64.7 % (11 patients) were from the sample group, and only 35.3 % (6 patients) were from the control group. Into the sample group there were more patients with many affected teeth (till 6 teeth – at the same child).

3.5. Treatments on the six years molars

From Figure 3 one can observe the early treatment (6-9 years old) of the six years molars performed to the boys within the control group. This action reduces the appearance of similar problems at older ages compared with the target group.

4. Conclusions

Lesions appear earlier at the children from the sample group, due to deficient dental hygiene and inadequate nutrition.

The children in the socio-economic challenged families checked with the dental physicians later in their life, when 15 or older, and the main reason for that appointment was the pain. In the case of 15 to 18 year-old teenagers in the sample group, the number of teeth extractions was double than those in the similarly-aged teenagers from the control group. The patients in the sample group sought appointments with the dental physician only when the teeth got irrecoverable.

On a long-term basis, the consolidation of prophylaxis, by means of dispensarization, education, and increased accessibility of such health services granted to children from socially-challenged families would result in the bettering of the quality of their life.

Untill now, the active involvement of the Orthodox Archdiocese of Sibiu and the Dentistry Services was poor. This study reveals that a direct active implication of the Dentistry Department with the support of the Faculty of Theology, can develop interdisciplinary areas that may improve the oral health of the people. We recommend the active implication of the Social Services of the Sibiu County, the Orthodox Archdiocese of Sibiu, etc., in solving the public health problems of the people in Sibiu area. Establishing an Integrated Services Regional Centre (medical, social, educational, and spiritual), featuring a department of Dental Medicine which could offer permanent dental-health services free of charge to children from poverty-stricken families, could be a major step ahead in the inclusive policies for the respective children.

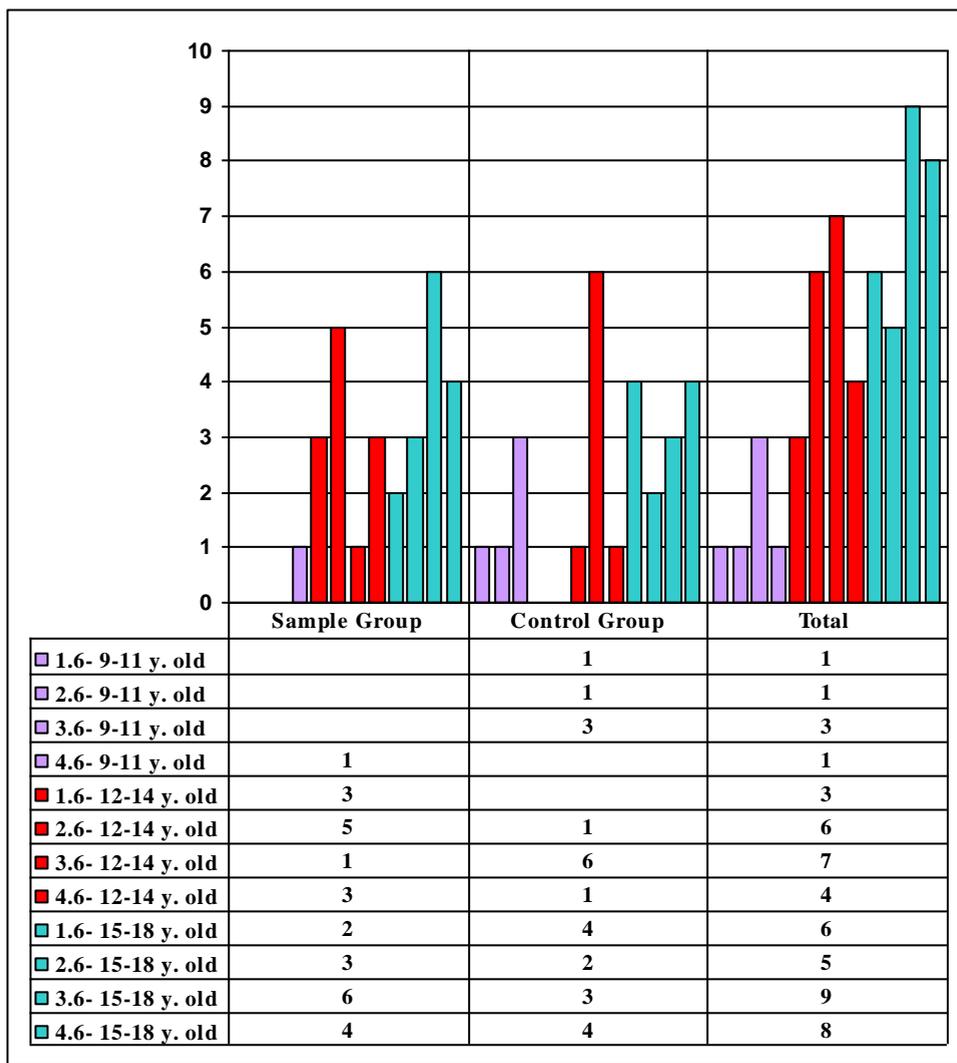


Figure 3. Treatments performed on the six years molars of the boys from both groups.
 Legend: 1.6 – first right upper molar, 2.6 – first left upper molar,
 3.6 – first left lower molar, 4.6 – first right lower molar.

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