Dental Health of Recent Immigrant Children in the Newcomer Schools, San Francisco

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Abstract: Dental screenings of 1,012 recent immigrant elementary school children in San Francisco showed 77 per cent of children needed dental treatment on first screening, compared to 25 per cent in the 1979–80 National Institute of Dental Research (NIDR) survey for the western United States. The prevalence of dental caries in primary teeth of the immigrant six and seven year-olds was twice that of their US counterparts. Non-refugee immigrants had more serious dental needs but used dental services less often than children with refugee status. (*Am J Public Health* 1987; 77:731–732.)

Introduction

The purpose of this project was to assess the dental health of recent immigrant children enrolled in the San Francisco Elementary Newcomer schools. These schools provide bilingual education for up to one year for children without English language skills. This project also investigated the impact of refugee status (as distinct from immigration per se) on dental health and use of dental services. A literature search revealed no previous report on the dental health of recent immigrant elementary school children which included refugee and non-refugee groups in the United States.

Methods

From December 1982 to December 1984, consenting children aged 6–11 years were screened in the Newcomer schools of the San Francisco school district every three to six months, with follow-up screening of those children remaining in the schools, to determine whether children had received treatment for identified disease. Portable chairs and lights and sterilized mouth mirrors and explorers were used; radiographs were not used. Two examiner dentists were trained, using the National Institute for Dental Research Manual, and criteria for diagnosis of caries were based on those suggested by Horowitz.[1] To assess the urgency and need for dental treatment, the American Dental Association (ADA) code of dental treatment needs was used as follows: ADA code 1 signified no treatment needs; ADA code 2 indicated non-serious dental conditions; and ADA codes 3 and 4 denoted serious dental conditions.[2,3] Dental treatment was not provided as part of this study, but there was referral for care by letter and by school personnel. Demographic information for each child was provided by the school.

Parents were asked, by interviewers who spoke the same language, about their children's previous dental visits and, if they had not taken their children to the dentist since living in the United States, they were asked to give a reason.

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Results

During the two-year period, 1,012 children aged 6–11 years were screened at least once; the children were from Southeast Asia (Cambodia and Vietnam), mainland China, Hong Kong, El Salvador, Guatemala, Mexico, Nicaragua, and the Philippines, of which 160 were refugee status immigrants all from Southeast Asia, and 852 were non-refugee status immigrants. At first screening the mean age was 8.3 years and 52 per cent were boys. The mean time from immigration to the first dental screening was 10.8 months for refugees and 5.3 months for non-refugees. The mean time interval between first and second screening was six months; 154 refugee children (4 per cent drop-outs) and 730 non-refugee children (14 per cent drop-outs) had follow-up screenings.

Seventy-seven per cent of all immigrant children needed dental treatment, in contrast to 25 per cent of children aged 6–11 years in the western US.[4] On second screening, this had decreased to 68 per cent. The percentage of children with serious dental conditions also declined, the decline being greater in refugee than non-refugee children (Table 1).

Table 2 shows that compared to the refugee children, the non-refugee children have a higher mean number of decayed and filled primary teeth (dft), and 6 and 7 year olds in both groups have about twice the mean dft for all US school children.[5] The proportion of untreated decay in the primary dentition was about two to three times higher in the Newcomer children than the national average.

Compared to the refugee children, the non-refugee children have lower mean decayed, missing, and filled permanent teeth (DMFT) scores, but both groups have higher scores than the national average. The proportion of untreated decay in the permanent dentition was two to three times higher in the Newcomer children than the national average, and the Newcomer children have more extractions (Table 3).

Eighty-four per cent of refugee children had been to a dentist since immigration, compared to 47 per cent of non-refugee children. For all parents who had not taken their children, 33 per cent said there were no perceived problems, 32 per cent mentioned money problems, and 8 per cent said they had no time. The other 27 per cent of responses included 5 per cent who said they did not know where to go; only 1 per cent said it was no use since the teeth will fall out anyway.

Discussion

The overall dental condition of the recent immigrant children who were screened in the Newcomer schools was

TABLE 1—Change over 6 Months in the Proportion of Refugee and Non-refugee Immigrant Children with Serious Dental Conditions

	First Screening		Second Screening	
	%	(N)	%	(N)
Refugees	25.0	(160)	9.7	(154)
Non-refugees	32.7	(852)	27.0	(730)
TOTAL	31.5	(1012)	24.0	(884)

TABLE 2—Comparison of dft Values for the Newcomer Children (refugees and non-refugees) with Values from the NIDR USA Survey 1979–1980†

	Newcomers in San Francisco											USA		
	Refugees				Non-refugees				All			NIDR Survey		
Age (years)	N	Mean dft	S.D.	%d/df	N	Mean dft	S.D.	%d/df	Mean dft	S.D.	%d/df	Mean dft	S.D.	%d/df
6	25	4.44	(3.24)	79.3	147	5.35	(4.94)	88.0	5.22	(4.74)	87.0	2.37	(3.10)	46.7
7	27	5.07	(4.95)	89.1	140	5.37	(4.20)	88.0	5.32	(4.31)	88.2	2.61	(3.02)	38.6
8	31	2.16	(2.30)	94.0	162	4.96*	(3.61)	89.5	4.51	(3.58)	89.9	2.84	(2.87)	30.3
9	31	2.10	(2.17)	91.7	164	3.16*	(2.64)	89.8	2.99	(2.60)	90.1	2.73	(2.69)	31.0
10	39	1.54	(2.50)	87.7	187	2.04	(2.38)	91.9	1.95	(2.40)	91.3			
11	9	0.56	(0.53)	100.0	52	1.40	(1.83)	98.6	1.28	(1.72)	98.7			

†See reference 5.
*Statistically significant difference between refugees/non-refugees (t-test: $p < .05$)

TABLE 3—Comparison of DMFT Values for the Newcomer Children (refugees and non-refugees) with Values from the NIDR USA survey 1979–80†

	Newcomers in San Francisco														USA			
	Refugees					Non-refugees					All				NIDR survey			
Age (years)	N	Mean DMFT	S.D.	%D/ DMF	%M/ DMF	N	Mean DMFT	S.D.	%D/ DMF	%M/ DMF	Mean DMFT	S.D.	%D/ DMF	%M/ DMF	Mean DMFT	S.D.	%D/ DMF	%M/ DMF
6	25	0.96*	(1.37)	70.8	0.0	147	0.38	(0.84)	83.9	0.0	0.47	(0.95)	80.0	0.0	0.16	(0.53)	57.6	0.0
7	27	1.44	(1.65)	48.7	0.0	140	1.07	(1.43)	80.7	0.0	1.13	(1.47)	74.1	0.0	0.44	(0.93)	41.9	0.3
8	31	2.23*	(2.54)	73.9	1.4	162	1.54	(1.64)	79.9	0.0	1.65	(1.82)	78.6	1.6	0.90	(1.31)	32.1	0.4
9	31	1.81	(1.87)	66.1	0.0	164	1.58	(1.86)	78.4	1.2	1.62	(1.86)	76.1	1.0	1.26	(1.54)	25.3	0.6
10	37	2.70*	(2.15)	63.0	4.0	187	1.71	(1.98)	70.5	4.7	1.87	(2.03)	68.8	4.5	1.69	(1.75)	25.1	1.0
11	9	3.89	(3.95)	100.0	0.0	52	2.60	(3.01)	69.5	4.4	2.79	(3.16)	75.9	3.5	1.96	(1.93)	23.2	1.0

†See reference 5.
*Statistically significant difference between refugees/non-refugees (t-test: $p < .05$)

relatively poor. Compared to the non-refugee immigrant children, refugee children had more permanent tooth decay, but less primary tooth decay and fewer serious dental conditions. The refugee children had a higher utilization of dental services and substantially improved dental health status between screenings.

Refugee status confers welfare benefits such as Medicaid for the first 18 months, as well as "English as a Second Language" (ESL) and job training for parents. The non-refugee groups, whose needs appear to be greater, have none of these benefits; parents struggle to find a job and have difficulty taking time off work to take their children to the dentist for the multiple visits of needed treatment. The health center clinics administered by the City and County of San Francisco provide dental care at a dollar per visit (increased to five dollars in 1986), for children under 14 years, and there are other facilities providing care at a cost that is lower than private practice fees. Further effort needs to be made to facilitate the provision of care for the non-refugee Newcomer children who are in need of dental treatment.

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