

Continuing education: attitudes and activities of Finnish dentists

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To improve the continuing education system, a group of dentists who had made little use of continuing education courses offered by the Finnish Dental Society was identified, and their opinions were mapped out and compared with those of dentists who had taken part in the systematic continuing education program. A pretested questionnaire was sent to these respective groups of 725 and 533 dentists, giving 82% and 72% return rates. A fifth of the dentists in service had never made use of the continuing education courses. Compared with all working 30-65-year-old dentists, male dentists, dentists under 35, and dentists working in rural area were over-represented in the group that had taken little part in continuing education. The dentists who had participated in systematic continuing education had also taken part in education organized by others twice as frequently as the control group. Both survey groups reported that they regularly read two professional periodicals on the average. There were only minor differences in the answers of the two groups as to whether they would be interested in participating in courses free of charge. The need for continuing education in orthodontics dominated among employed dentists, whereas self-employed dentists most frequently perceived a need in prosthodontics. Continuing education was generally considered necessary and useful but somewhat expensive. □ *Non-attendance; questionnaire; survey*

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A dentist's education is thought of nowadays as a process that continues right through the professional life. In-service education forms part of a dentist's work and professional responsibility. In Finland dentists' continuing education is considered so important that it has been made statutory. The 1972 Act on Primary Health, which made the municipalities responsible for the dental care and prevention of dental diseases of their population, also stipulated that dentists should attend continuing education. Furthermore, under the Act on the Dental Profession, a dentist can be required to attend continuing education.

The Finnish Dental Society, of which 94% of Finland's nearly 4000 dentists are members, had traditionally arranged most of the continuing education for dentists. The extent of this education activity has grown every year. In 1980, 104 continuing education courses were arranged, with a total of 2826 participants (1). The Society has also run a

systematic continuing education program since 1977, covering ten subfields of dentistry. During the first 5 years these weekend courses were held twice a year in 12 localities in various parts of Finland. Seven hundred and thirteen dentists enrolled during this period, and they have been invited to attend a course every term.

The present survey was made to improve the continuing dental education system. For this reason the opinions of the group of dentists who had made little use of continuing education courses offered by the Finnish Dental Society were mapped out and compared with those of dentists who had taken part in the systematic continuing education program.

Materials and methods

The Finnish Dental Society has kept a record of the participants in its continuing education

courses since 1966. The researchers went through the Society's membership register and picked out all the members under 65 years of age whose names were not on the training register. A questionnaire was sent to these 725 dentists in March–April 1981, and 614 answers were received. Nineteen of these were rejected owing to inadequate information, giving an 82% return. Of the respondents 38% were under 30 years of age, and their replies were discarded before further processing, because of their recent graduation. The need for continuing education of the youngest dentists was considered to be minimal at that moment.

The same questionnaire was sent in September–October 1981 to the 713 dentists who had taken part in the systematic continuing education program. This questionnaire was answered by 533 dentists. Twenty-one replies had to be rejected because of inad-

equate information, giving a 72% return for this group. Of these respondents 2% were over 65 years old, and their replies were discarded before further processing.

The survey information was reduced through cross-tabulations, and the statistical significance of the difference was tested with the chi-square test and the *t* test. The questions about reasons for not taking part in continuing education were formulated as propositions, using the Likert scale (2). Each proposition was followed by a numerical scale from 1 to 5, the number 1 representing complete agreement and the number 5 complete disagreement with the proposition. The respondents were asked to choose a number in accordance with what extent they agreed or disagreed with the proposition. The reference distributions for all working 30–65-year-old dentists were taken from the statistics of the National Board of Health (3).

Table 1. Percentage distribution of study material. Dentists who had not participated in continuing education courses are indicated by a minus sign and those who had participated in systematic continuing education by a plus sign

	(-) Dentists (no. = 356)	(+) Dentists (no. = 497)	All working 30–65-year old dentists (no. = 3059)
Sex			
Female	55	66	68
Male	45	34	33
	Chi-square = 10.9, df = 1 p < 0.001		
Age			
30 to under 35 years	64	12	32
35 to under 45 years	28	55	44
45 to under 55 years	6	27	23
55 to under 65 years	2	6	1
	Chi-square = 257.9, df = 3 p < 0.001		
Occupation			
Employed dentist	45	44	46
Self-employed dentist	54	53	50
Other	2	3	5
	Chi-square = 6.36, df = 2 p < 0.05		
Location of office			
Rural area	40	29	22
Town	60	71	78
	Chi-square = 11.1, df = 1 p < 0.001		

Table 2. Dentists' attitude to their work, in percentage

	(-) Dentists (no. = 356)		(+) Dentists (no. = 497)	
	Employed (no. = 164)	Self-employed (no. = 192)	Employed (no. = 234)	Self-employed (no. = 263)
Satisfactory	23	12	25	15
Very satisfactory	76	89	75	85

Chi-square = 16.5, df = 3, $p < 0.001$.

Results

The dentists who took part in the study are grouped in Table 1 by demographic variables and variables characterizing their work. A fifth of the dentists in service had never made use of the continuing education courses arranged by the Finnish Dental Society. In this group, male dentists working in rural areas were over-represented in comparison with all Finnish dentists under 65 years of age. Young dentists with little work experience were, however, most clearly over-represented.

None of the respondents said they were dissatisfied with their work, but self-employed dentists in both survey groups were significantly more satisfied with their work than employed dentists (Table 2). The dentists who had taken part in systematic continuing education had also taken part in continuing education organized by others twice as frequently as the group of dentists who had not participated in systematic continuing education (Table 3). They also took part, with a statistically highly significantly higher frequency, in the Finnish den-

tists' annual convention. Both survey groups reported that they regularly read two professional periodicals on an average.

The two groups had similar views on the quality of the continuing education available. Nearly half of the respondents considered the level of continuing education satisfactory, and more than a third thought it was good. Most of the respondents (80%) also considered the amount of continuing education arranged for dentists adequate. The two groups had only minor differences in their answers to whether they would be interested in taking part in continuing education free of charge. On the other hand, employed dentists in both groups were highly significantly more willing than self-employed dentists to take part in a week's free course. Self-employed dentists considered weekend courses a better alternative (Table 4).

In assessing the need for continuing education in the various subfields of dentistry, the respondents' views diverged in accordance with the background variables (Table 5). The need for continuing education in orthodontics dominated among employed dentists, whereas self-employed dentists

Table 3. Other sources for dentists' continuing education, in percentage. Multiple answers allowed

	(-) Dentists (no. = 356)	(+) Dentists (no. = 497)
Other dental organization	31	60
Local dental society	31	69
Courses abroad	15	13
Total	77	142

Chi-square = 20.2, df = 2, $p < 0.001$.

Table 4. Percentage distribution of dentists' willingness to participate in various types of continuing education courses if free of charge

	(-) Dentists (no. = 356)		(+) Dentists (no. = 497)	
	Employed (no. = 164)	Self-employed (no. = 192)	Employed (no. = 234)	Self-employed (no. = 263)
One-day course	10	12	8	8
Weekend course	10	39	5	43
One-week course	81	49	86	49

Chi-square = 143.1, df = 6, $p < 0.001$.

Table 5. Rank order of different subfields in dentistry according to the experienced continuing education need by the surveyed dentists

	(-) Dentists		(+) Dentists	
	Employed	Self-employed	Employed	Self-employed
Orthodontics	1		1	
Periodontics	5	3	3	3
Prosthodontics	4	1	4	2
Stomatognathophysiology	3	4	2	1
Oral surgery	2	2	5	5
Applied medicine		5		4

Table 6. Reasons of the surveyed dentists for not attending continuing education (1 = complete agreement and 5 = complete disagreement)

	(-) Dentists (no. = 356)	(+) Dentists (no. = 497)
Expense	2.1 **	1.8
Suitable course not available	4.1	4.2
Lack of time	3.2 ***	3.8
No need	4.7	4.9
Inertia	2.3 ***	3.0
No use	4.7	4.7
Employer refuses to give leave	2.4	2.4
Unsuitable course times	3.6	3.6
Long distance	2.6	2.8
Continuing education should be obligatory	2.7	2.6

** $p \leq 0.01$; *** $p \leq 0.001$ (*t* test).

most frequently needed education in prosthodontics. The main reason given for not taking part in continuing education was the expense (Table 6). However, continuing education was generally considered necessary.

Discussion

There are many young dentists in Finland today because the intake of students has increased rapidly in the past few years. Although this group's need for continuing

education may be considered small at present, special attention should be paid to how to make systematic education attractive to young dentists. Thus a substantial increase in the quantitative need for continuing education should be anticipated in the near future.

The dentists who had made little use of the Society's courses had mainly acquired their continuing education through local dental societies. The dentists who had participated in systematic education had, however, also taken part in more courses arranged by other bodies than the group of dentists not participating in systematic continuing education. This difference in activity could also be seen in the frequency in participation in the annual dentists' convention. This convention has been the most important and largest educational event for dentists in Finland since 1938. In the past few years the number of participants has been fairly constant, some 42% of the profession (4). Regular reading of professional periodicals is of course an important form of continuing education. In this regard the two survey groups did not differ.

The need for continuing education is partly a reflection of what the basic training has been. It is easy to understand the difference in the need for continuing education in periodontology between younger and older self-employed dentists. The teaching in periodontology was only established in the basic training of Finnish dentists in the mid-seventies. Differences between the kinds of patient treated by employed and self-employed dentists also help explain differences in the need for continuing education. At present, employed dentists are largely in charge of the treatment of people under 18 years of age in Finland. In a Swedish survey (5) conducted in the county of Jönköping, the main need for continuing education in the private sector was found to be in prosthodontics and stomatognathophysiology. This corresponds closely with the Finnish dentists' views, according to the present results (Table 5). Similarly, the employed Swedish dentists felt the most pressing need for continuing education in psychodontics and orthodontics. The need

for further education in orthodontics was also obvious among the employed dentists who answered the present survey. The urgent need for continuing education in stomatognathophysiology reflects the general trend in Finland and the insignificant role this branch used to play in the basic training of dentists.

Those who had taken part in systematic education cited the expense as their opinion of the main reason for non-participation, whereas for the inactive group reasons connected with attitudes were clearly more significant (Table 6). In spite of this all took a favorable view of continuing education when asked about reasons for non-participation. This finding emphasizes the significance of knowledge about the dentists' attitudes as an increasingly important factor in the design and presentation of dental continuing education courses (6). This provides a sound basis for the further development of training even though conflicts between attitudes and manifest behavior are known to be common. Although the two groups differed in their activity in participating in continuing education, the group of dentists who are inactive appears to be small. The many alternative ways to acquire continuous education have made it possible for even those dentists who have not taken part in the Finnish Dental Society's courses to keep up with the times.

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