

Short Communication



Current Status of Community Oral Health Education Among Iranian Dental Schools

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Abstract

Background: Community oral health (COH) courses have been integrated with the educational program in Iranian dental schools since the 1980s. The present study examined and described current COH delivery among Iranian dental schools.**Methods:** This cross-sectional study used a questionnaire previously designed for a similar study in Europe, which was modified to be compatible with dental education in Iran. In early 2021, with the cooperation of the Council for Dental Education of the Iranian Ministry of Health, an invitation letter containing the survey link of the modified questionnaire was mailed to the deans of all Iranian dental schools. Reminder calls were made after 6 and 12 weeks. After 20 weeks, the link was closed, and no further responses were accepted. The responses were analyzed using descriptive statistics.**Results:** Thirty-six deans of dental schools responded to the invitation (an 84% response rate). Half of the schools had COH departments, and COH PhDs headed the majority of the departments. The most prevalent academic rank among the heads of COH departments was assistant professor (56%). COH courses were dispersed throughout all six years of undergraduate programs, and COH PhDs (59%) and Community Medicine PhDs (47%) most commonly delivered COH courses. The most popular teaching methods were lectures (100%), outreach visits (77.8%), and online courses (72.2%). Most schools reported that they taught all six domains of COH, including philosophy and approach, public health and demography, health promotion, disease prevention and health care systems, dental workforce, and health planning.**Conclusion:** More than half of the dental schools had COH departments and used qualified teachers to teach their courses using well-developed programs and acceptable methods.**Keywords:** Oral health, Public health, Dentistry, Curriculum, Dental education**Citation:** Bandehagh A, Khami MR, Farshad F, Hessari H. Current status of community oral health education among Iranian dental schools. *J Oral Health Oral Epidemiol.* 2026;15:2501.1704. doi: [10.34172/johoe.2501.1704](https://doi.org/10.34172/johoe.2501.1704)

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Introduction

Poor oral health is usually seen in people with low-income, uninsured individuals, members of racial/ethnic minorities, immigrants, or rural populations who have suboptimal access to quality oral health care.¹ These disparities in the community will not be addressed by simply increasing the number of dental health workers,^{2,3} requiring oral disease preventive programs to become an inner desire among new graduates.⁴ Socially conscious dentists are the fruits of an educational system focusing on community issues,⁵ which demands the dynamic improvement of curricula and faculty members and the provision of Community Oral Health (COH) content.

In Iran, the Council for Dental Education in the Ministry of Health developed a national undergraduate dental curriculum, which is administered in all Iranian dental schools. However, due to disparities in available facilities and the quality of these schools, there may be differences in dental schools' educational programs.⁶ The undergraduate dental education program takes at least six

years in Iran and is granted a Doctor of Dental Surgery (DDS) degree.⁷

In this program, students pass basic sciences courses during the first two years and then enter the preclinical phase for about two additional years, followed by two years of clinical internship courses, where they practice dentistry in clinical departments under the supervision of faculty members.⁸ These students should successfully pass a total of 218 credits during the 6-year training program, including (a) general courses (24 credits), (b) basic sciences (44 credits), (c) pre-dental courses (35 credits), and (d) dental courses (115 credits).⁹

"Dental Public Health", "COH" and "Community Dentistry" are the terms mainly used interchangeably by dental schools across the world to refer to the discipline aiming to improve oral health in the community.¹⁰ In the present study, COH is used for this purpose. When translated back, the corresponding term for dental public health or COH in Persian means "Oral Health and Community Dentistry",¹¹ a term that allows people



without academic degrees to better understand the aims and responsibilities of this branch of science.

COH has been taught in Iranian dental schools since the 1980s.¹² In a curriculum revision in 1999, emphasis was placed on community-based education and primary dental health care.^{9,13} Furthermore, a new department providing COH courses was formally founded at that time. Since then, an increasing number of dental schools have established COH departments, leading to positive revisions in COH teaching due to the growing awareness of the need for a competency-based curriculum.¹³ According to Iran's latest dental curriculum revision in 2018, oral health promotion and disease prevention are among the five major competencies necessary for graduates of dentistry.⁴

The providers of COH courses, COH content, and teaching and assessment methods may vary across Iranian dental schools. This study was carried out in cooperation with the Council for Dental Education of the IMOH to examine and describe the current status of COH delivery in Iranian dental schools.

Methods

The present cross-sectional study was conducted in Iran and approved by the Ethics Committee of the School of Dentistry of Tehran University of Medical Sciences (IR.TUMS.DENTISTRY.REC.1399.177). In the present study, we used a questionnaire previously designed by Rizvi et al for a similar study in Europe.¹⁴ The original questionnaire was translated into Persian and modified to be compatible with dental education in Iran. We invited five COH specialists and COH academics from the School of Dentistry of Tehran University of Medical Sciences to provide feedback and assess the face validity of the questionnaire. The questionnaire was then piloted, containing 15 closed-ended questions in the following domains:

1. General information about the dental school (1 question about the number of yearly admissions in each dental school)
2. The department and faculty members responsible for COH delivery (5 questions about the COH department and the degrees of its academic members)
3. The study years in which COH courses were delivered according to the undergraduate dental curriculum (1 question about COH course assessment)
4. Educational methods & materials (2 questions about the content of COH courses)
5. Core curriculum content across six domains, including COH philosophy and approach, public health and demography, health promotion and disease prevention, health systems, oral health workforce, and health planning (6 questions about COH dimensions)

The final questionnaire was then uploaded to an online

survey platform. An introduction to the study appeared on the first page, and respondents were instructed to consider the pre-COVID-19 pandemic status of COH teaching for their responses, starting with the impact of the pandemic on COH education.

In cooperation with the Council for Dental Education of the IMOH, an invitation letter containing the survey link was mailed to the heads of all Iranian dental schools (36 public and 7 private schools) in early 2021. They were requested to assign someone with comprehensive knowledge of the COH curriculum in the school, ideally a COH specialist, to participate in this study. If any of the responses were incomplete or ambiguous, the respondent was called using the contact information placed at the end of the questionnaire and asked to edit responses for better clarity and reliability. After 6 and 12 weeks, reminder calls were made to the head offices in all schools. After 20 weeks, the link was closed, and no further responses were accepted.

Responses to closed-ended questions were analyzed using SPSS version 26 (IBM Corp, Chicago, IL, USA) and descriptive statistics, and thematic analysis was applied to open-ended questions.

Results

Thirty-six out of 43 invited heads of dental schools participated in the study (response rate = 84%). The mean annual number of dentistry graduates from these schools was as follows: 80 to 120 graduates from eight schools (22.2%), 40 to 80 graduates from eight schools (22.2%), and 0 to 40 graduates from 20 schools (55.6%).

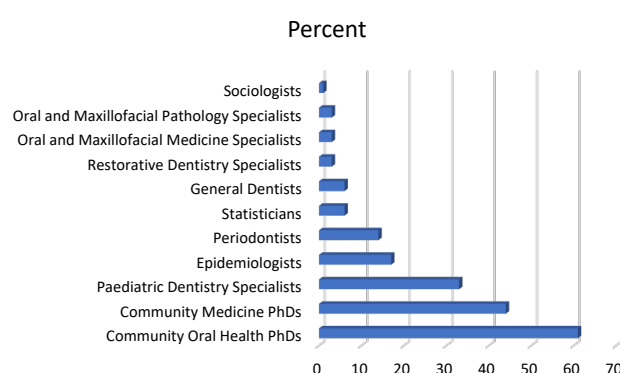
Half of the schools (n=18) had COH departments, and COH PhDs headed the majority (78%) of these departments (n=14), while general dentists (n=2), prosthodontics specialists (n=1), and biostatistics PhDs (n=1) were appointed as department heads as well. The most frequent academic rank among the heads of COH departments was assistant professor (55.6%), followed by general dentist (22.2%), associate professor (16.6%), and full professor (5.6%).

COH courses were dispersed across the six study years of the undergraduate program. However, a few hours were dedicated to COH in the first two years (Table 1). COH PhDs (61%) and community medicine PhDs (44%) were most commonly involved in delivering COH courses, but other faculty members from various disciplines, e.g., pediatric dentistry specialists, epidemiologists, periodontists, and statisticians, also participated (Figure 1).

The most common teaching methods were lectures (100%), outreach visits (77.8%), online courses (72.2%), projects (63.9%), question & answer (Q&A) (58.3%), workshops (58.3%), and seminars (49.2%). Problem-based learning (PBL) (13.9%) was also reported. Assessment methods included multiple choice questions (94.4%),

Table 1. Community Oral Health in the dentistry educational curriculum in Iranian dentistry schools (N=36)

Courses	Credits	Hours	1 st year	2 nd year	3 rd year	4 th year	5 th year	6 th year
			n (%)	n (%)	n (%)	n(%)	n (%)	n (%)
1. Oral and Public Health (Theory-Practice)	1.5-0.5	43	26 (72)	4 (11)	2 (6)	1 (3)	3 (8)	0 (0)
2. COH 1 Theory	1	17	0 (0)	0 (0)	23 (64)	11 (30)	2 (6)	0 (0)
3. COH 2 Theory	1	17	0 (0)	0 (0)	12 (33)	12 (33)	12 (33)	0 (0)
4. COH 1 Practice	1	34	(0)	0 (0)	10 (28)	17 (47)	8 (22)	1 (3)
5. COH 2 Practice	1	34	0 (0)	0 (0)	0 (0)	13 (36)	18 (50)	5 (14)
6. COH 3 Practice (internship)	1	34	0 (0)	0 (0)	0 (0)	5 (14)	7 (19)	24 (67)
7. Research Methodology 1 (workshops)	1	51	1 (3)	1 (3)	23 (64)	10 (28)	1 (3)	0 (0)
8. Research Methodology 2 (workshops)	1	51	0 (0)	1 (3)	11 (31)	20 (56)	4 (11)	0 (0)
9. Scientific Writing and Evidence-Based Dentistry (workshops)	1	51	0 (0)	0 (0)	2 (6)	8 (22)	19 (53)	7 (19)
10. Application of Computer in Dentistry (workshops)	1	51	9 (25)	17 (47)	7 (19)	3 (8)	12 (33)	21 (58)
11. Clinical Governance (Theory-Practice)	0.5-0.5	26	0 (0)	0 (0)	0 (0)	3 (8)	12 (33)	21 (58)
12. Geriatric Dentistry (Theory-Practice)	0.5-0.5	26	0 (0)	0 (0)	6 (17)	5 (14)	5 (14)	20 (55)
Total	12	435	8	5	22	25	21	18

**Figure 1.** Faculty members delivering COH courses in the context of undergraduate educational programs in Iranian dentistry schools (N=36), 2021

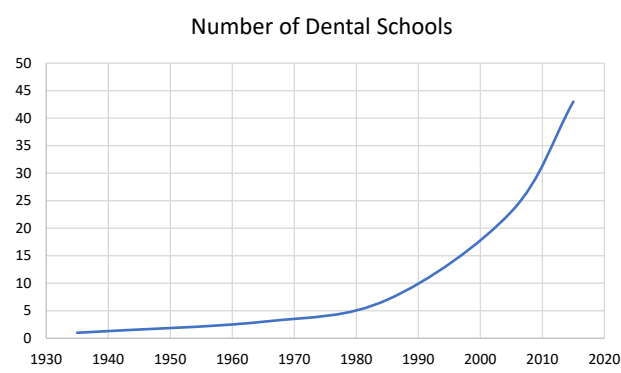
coursework and assignments (86.1%), essay questions (72.2%), and clinical examinations (55.6%) (Table 2).

Discussion

The present study provided a comprehensive insight into the current practice of COH training and its infrastructure in Iranian dentistry schools. The number of Iran's dentistry schools has significantly increased from 18 to 43 (a 139% increase) over the last two decades (Figure 2), raising concerns about whether or not the requirements for a dental education of acceptable quality have been met in these newly established schools.

Currently, all 31 provinces of Iran have at least one public dental school, and the capital city, Tehran, has more than three. In addition, there are seven private dental schools, mostly established in highly populated cities (Tehran, Mashhad, Isfahan, Shiraz, Tabriz, Kermanshah, and Borujerd),¹⁵ leading to groundbreaking advances in COH education in Iran over the past decades. However, COH education faces some limitations, such as shortages of faculty, money, and modern equipment.⁶

The most recent curriculum revision in Iran (2018)

**Figure 2.** Number of Iranian dentistry schools over time

stated that dental schools with more than 40 DDS graduates should have a special department dedicated to COH delivery with at least two academic members.⁴ The present study's findings suggest that some schools with more than 40 graduates still struggle to meet this requirement. However, half of the schools had a department specifically for teaching COH, which was comparable to two-thirds of dental schools in Europe.¹⁴

In the schools participating in this study, COH courses were most commonly taught by COH PhDs. In addition, the findings showed multidisciplinary COH delivery by the participation of epidemiologists, statisticians, and sociologists as well. However, due to the lack of universities offering a PhD in dental public health in Egypt, the percentage of pediatric dentistry academics teaching oral health was greater than DPH academics.¹⁶ In fact, asking non-dental personnel, such as teachers or school health care providers, to deliver COH can even facilitate implementing school oral health interventions.¹⁷ So, it is unacceptable to ask other specialists to be COH educators.

The heads of COH departments in more than one-fifth of the schools had degrees other than a COH PhD. Moreover, COH departments were most commonly

Table 2. The association between community oral health domains and having independent community oral health Departments (N=36)

	Having Independent COH Department %			Should this domain/subject be included in the COH curriculum? %		
	Yes	NO	P-value*	Yes	No	No idea
<i>Community Oral Health Domains and Subjects</i>						
1. Community oral health philosophy and approach						
Definitions of community oral health	100	95	0.5	25	0	75
Community health approach and skills	89	72	0.2	69	0	31
Diseases known as community health problems	72	78	0.5	33	0	67
2. Public Health and Demography						
Inequalities in health	83	50	0.03	36	0	64
Oral health needs assessment	100	89	0.2	28	0	72
Epidemiological tools and indicators	100	89	0.2	28	0	72
Epidemiology of oral diseases	100	89	0.2	25	0	75
Demographic trends	78	44	0.04	30	3	67
Global oral health trends	55	33	0.1	44	3	53
National oral health trends	78	61	0.2	36	3	61
3. Health Promotion and Disease Prevention						
Concepts and definition of health	100	94	0.5	22	0	78
Determinants of health	100	94	0.5	22	0	78
Evidence-based health promotion	83	83	0.6	31	0	69
Behavior change	94	78	0.1	28	0	72
4. Healthcare Systems						
Relevant health policies	61	56	0.5	30	3	67
Organization and delivery of healthcare in general	78	67	0.3	28	0	72
Organization and delivery of community and private dental care	78	67	0.3	30	3	67
Health equity	67	56	0.3	39	3	58
Infection control	67	67	0.6	17	8	75
Evidence-based health care	67	67	0.6	39	3	58
Examples of changes in health services	17	50	0.03	33	3	64
Oral health policy	50	50	0.6	36	3	61
5. Oral and Dental Workforce						
Dental workforce overview	83	50	0.03	28	0	72
Roles and responsibilities of dental teams	78	55	0.1	33	0	67
Dental leadership	55	44	0.5	39	6	55
The wider community health workforce	55	50	0.5	44	0	56
6. Health Planning						
Theory of planning	83	61	0.1	31	0	69
Planning oral health promotion	78	67	0.3	31	0	69
Planning oral and dental services	83	72	0.3	36	0	64
Examples of effective community health interventions	72	61	0.3	30	3	67

*P value less than 0.05 is significant.

headed by assistant professors. These findings were reasonable considering the not very long history of teaching COH to PhD students in Iran and the dramatic growth in the number of dental schools in the last ten years.¹⁵ Moreover, in a study conducted in one of the dental schools in Iran, new dental schools faced challenges in recruiting faculty members for training and mentoring

undergraduate students.¹⁸

In the Iranian undergraduate dental curriculum, COH courses are dispersed longitudinally to expose students to relevant subjects every year; however, these courses were improperly compressed across final study years in a few schools. It would be beneficial to revise COH courses in these schools, considering that long-term engagement can

lead to deeper learning.¹⁹ Moreover, curriculum changes can extend to the content, as oral health was often taught alongside unrelated topics. In fact, the share of oral health content in the COH curriculum reaches a maximum of 79% in the United States.²⁰ Several teaching methods were used in the schools evaluated; however, PBL was less applied. A systematic review revealed that the use of PBL in dental education improved students' ability to apply their knowledge to clinical situations and enhanced their perceived preparedness.²¹ Therefore, dental schools are recommended to use new learning methods, such as PBL, for teaching COH.

In addition to specialized educational domains taught to COH specialists²² and public health professionals²³, we evaluated six COH domains aimed at general dentistry students. The domains and subjects were similar to those investigated in European countries.¹⁴ The results showed that all six COH domains were taught in the majority of the schools; however, several subjects of some domains were inadequately covered, including global oral health trends, examples of changes in health services, and dental leadership. Moreover, refugee dental care was one of the missing courses according to our study. In a study conducted in Turkey, these courses positively influenced students' knowledge, experience, and willingness to provide care for refugees.²⁴ Teaching these less-covered subjects can help dentistry students understand the importance of COH and how it is delivered to the population, highlighting the need for incorporating these subjects in the undergraduate dental program.

According to the results of the present study, some noteworthy limitations can be noted for the COH program taught in Iranian dental schools. The most important limitation might be the fact that some dental schools faced shortages in the number of COH PhDs. Schools with COH PhDs performed better in COH teaching. Other limitations should also be considered, such as the lack of COH departments in some dental schools, which can be obviated by recruiting increasing numbers of COH PhDs graduated. In addition, dental schools may need to revise their COH programs to cover all COH subjects.

Future studies should focus on the challenges of developing COH teaching programs in Iranian dental schools, as well as on advances in COH educational infrastructure.

Strengths and Limitations

The main strength of this survey was its methodology. This study was conducted in cooperation with the Council for Dental Education of the Ministry of Health, guaranteeing a high response rate (84%). Nonetheless, there may be a risk for response bias that should be considered since data were collected from schools themselves. Schools without a COH department or less interest in COH teaching were inclined to participate in this study. Moreover, considering

the number of schools that participated in the present study, we could not use subgroup analysis to rank the universities.

Conclusion

More than half of Iranian dental schools had established COH departments and taught relevant topics using qualified professors based on well-developed educational programs and acceptable teaching methods.

Acknowledgments

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Competing Interests

The authors have declared that no conflict of interest exists

Data Availability Statement

The datasets used and analyzed during the current study are available from the corresponding author upon reasonable request.

Ethical Approval

The present study was approved by the National Committee of Ethics in Biomedical Research, Iran (IR.TUMS.DENTISTRY.REC.1399.177).

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