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Barriers against Provision of Oral Healthcare Services to the Elderly: Views of Dentists and Managers of Elderly Care Centers

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Objectives The proportion of older people is increasing faster than other age groups. Evidence shows that older people receive less oral health services than what they need. The purpose of this study was to investigate the barriers against the provision of oral healthcare services to the elderly from the perspective of dentists and managers of elderly care centers (ECCs) in Tehran.
Methods This qualitative study was conducted using semi-structured interviews. The study population included managers of ECCs and dentists who work in the field of geriatric dentistry in Tehran. Participants were selected by purposive and convenience sampling. Interviews were continued until saturation of the information in both groups. The interviews included about 10 predetermined questions regarding different aspects of providing dental care services to the elderly. The Graneheim and Lundman's qualitative approach was used for content analysis of the interviews.
Results The data reached saturation after conducting interviews with nine managers of the ECCs and seven dentists. Finally, five main themes were extracted by the content analysis including "problems related to accessing care", "problems related to disability", "financial problems", "problems related to dentists" and "problems related to policy-making".
Conclusion Several barriers exist related to service recipients, service providers, and policy-makers against the provision of oral healthcare services to the elderly. Removing these barriers requires cooperation between the education, health, and treatment sectors of the Ministry of Health, the Welfare Organization, and professional dental organizations.
Keywords Delivery of Health Care; Dental Care for Aged; Qualitative Research

Introduction

A demographic revolution is taking place around the world; the proportion of older people is increasing faster than other age groups. In 2005, about 600 million people in the world were over 60 years of age, which was projected to double by 2025. Moreover in 2050, the population of this age group is expected to reach over 2 billion.[1]

Nowadays, with increasing life expectancy and medical, economic and social changes, more attention should be paid to disease prevention and treatment in the elderly to increase their quality of life.[2] This is achievable by preserving their speech, taste, deglutition, and mastication, which are ensured by proper function and health of the oral cavity.[3] Oral diseases in the elderly can adversely affect their general health by interfering with their mastication and disturbing their diet. Moreover, changed facial appearance and impaired speech and communication can adversely affect the mental and emotional status of the elderly, and compromise their quality of life.[4-6] Finally, evidence shows a clear correlation between poor oral health and mortality in the elderly.[7] Older people are more vulnerable to oral health problems than younger age groups due to accumulation of risk factors in them. On the other hand, oral and systemic diseases, tooth loss, and using various medications further complicate the oral health status of the elderly. [2, 8]

Nevertheless, it has been shown that older people benefit less from oral health services than they need.[9] According to the results of a national oral health survey in 2012 in Iran, 86% of people aged 65-74 years required dental care, and their mean DMFT was 25.7.[10] A recent review on the prevalence of dental caries among the elderly in Iran showed that on average, Iranian elderly only had about seven teeth in their mouth, including third molars. [11] International studies also highlight the unmet needs in the field of oral health in the elderly. For example, according to a study by Montini et al. [5] in New York City in 2014, about 89% of the elderly required dental treatments. In a study by Patterson Norrie et al. [12] on the oral health status of the elderly living in an Australian elderly care center (ECC), more than 60% had dental caries and about 30% had symptoms of periodontal disease. Hoben et al. in a systematic review found that good oral health among the elderly living in ECCs was rare; 41-79% had dental caries, 66-74% had periodontal disease, 32-49% needed soft tissue surgery, and 5-17% had dental pain. [13]

Provision of oral health services to the elderly has been the subject of a great number of studies in different countries. Common barriers mentioned by oral healthcare providers included lack of adequate equipment in ECCs, dissatisfaction of care providers, insufficient reimbursement to dentists, insufficient trainings and experiences of dentists, elderly's complex medical conditions, failure to follow the dentist's instructions, and elderly's unwillingness to receive dental services. [14-18]

From the perspective of nurses and the staff working in ECCs, there were also barriers such as lack of cooperation of the elderly, insufficient care-seeking behavior of the elderly, insufficient time for the nurses, lack of oral health knowledge among nurses and other staff of ECCs, lack of a specific plan in ECCs for providing oral healthcare, unwillingness of dentists to treat the elderly, and finally lack of oral healthcare providers in ECCs. [4, 6, 12, 13, 19-21] In order to acquire a deeper understanding of barriers against the provision of oral healthcare to the elderly in a local context, we intended to inspect these barriers from the perspective of two main related stakeholders namely dentists and managers of ECCs in Tehran, Iran.

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Methods and Materials

This qualitative study was conducted using semi-structured interviews in Tehran, Iran.

Study population:

The study population included managers of ECCs in Tehran and dentists who worked in the field of geriatric dentistry. A list of certified ECCs was requested from the Welfare Organization of Tehran. Nine centers were selected from the list by purposive sampling. Each center was contacted by phone, and after explaining the aim of the study and gaining their approval, the manager of the center was invited to take part in the interview. Seven dentists were also selected by purposive and convenience sampling from the faculty members of Shahid Beheshti School of Dentistry who had experience in treating the elderly patients. Participants gave verbal consent for participation in the study and were informed about the audio recording of the interviews. This study was reviewed and approved by the Committee of Ethics in Research Affairs of Dental School, Shahid Beheshti University of Medical sciences (code: IR.SBMU.DRC.REC.1398.241).

Interviews:

All interviews were conducted by one of the researchers (PM) from July to December 2020. Interviews with dentists were conducted face-to-face at the School of Dentistry, Shahid Beheshti University of Medical sciences. Interviews with the managers of ECCs were performed via phone calls due to the restrictions caused by the COVID-19 epidemic.

Interviews included asking a list of about 10 predetermined questions regarding different aspects of providing dental care to the elderly. The followings are examples of these questions: dentists' work experience, average number of the elderly patients visited by dentists, dentists' opinion regarding oral health problems of the elderly patients and their cooperation during dental treatments, dentists' opinion regarding cooperation with ECCs, number of the elderly residing in each ECC and their level of cooperation, the way each ECC manages oral health problems of the elderly, and presence of a dental facility in the ECC.

Depending on the circumstances of the interview, additional questions could be asked. The duration of each interview was 15-30 minutes, and before the next interview, each interview was reviewed and discussed with other authors. The content was then analyzed and discussed in collaboration with all authors. Interviews continued until data saturation when no new theme emerged from the participants' answers. [22-24]

Data analysis:

Graneheim and Lundman's qualitative approach [25, 26] was used for the content analysis as follows:

1. Immediately after each interview, the recorded content was transcribed verbatim.
2. The written text of each interview was reviewed by all authors to achieve a general understanding of its content and to determine the meaning units (extracting the meaning units).
3. The meaning units were studied, summarized and an initial code was allocated to each meaning unit (abstracting).
4. The codes were compared with each other in terms of similarities and differences, and then were classified under more abstract categories with a specific label (sorting codes).
5. Finally, by more careful comparison of the classified codes, the hidden content within the data was introduced as themes (formulation of themes).

Results

In total, 16 interviews were conducted; 7 with dentists and 9 with managers of the ECCs.

Themes:

Based on the content analysis of the interviews, finally five main themes were extracted which are summarized in Table 1, and presented in more details as follows (participants' quotations are presented as an example under each subtheme):

Problems related to accessing dental care:

The problems expressed in relation to this theme were divided into five subthemes:

1. Lack of referral of the elderly to dental care centers

(Manager of the ECC 1): "Look, for example, I have been here for 2 years, maybe we only had one case to take to the dentist."

2. Unavailability of oral healthcare providers in the ECCs

(Manager of the ECC 3): "No one is responsible for examining their mouths"

3. Unavailability or lack of dental equipment in ECCs

(Dentist 6): "It is necessary to equip the ECCs with adequate dental equipment in order for a dentist's to be able to cooperate with an ECC."

4. Lack of a dental care facility in the ECCs or not allocating a space for dental care providers

(Manager of the ECC 7): "The size of our ECC matches the requirements by the Welfare [the Welfare Organization]. We do not have additional space for a dental care facility, and the Welfare has not asked us to allocate such a space."

5. Problems related to transportation of the elderly

(Dentist 4): "For example, dental clinics may not be accessible for these people; many of them may use wheelchairs."

Problems related to disability:

Problems related to this theme were classified into 3 subthemes:

1. Problems associated with old age and various diseases

(Manager of the ECC 6): "They do not cooperate; for example, patients sometimes resist opening their mouth, if they still have natural teeth, they may resist brushing their teeth and finally they may resist removing dentures at night."

2. Need for a companion

(Dentist 6): "One has to be with them, bring them to the care center and take them back, stay with them during the treatment; the elderly often do not have such people."

3. Insufficient knowledge and awareness

(Dentist 7): "The elderly, especially those in the ECCs, do not pay attention to oral health issues at all."

Financial problems:

Financial problems were also divided into three subthemes:

1. Financial problems related to the elderly
(Dentist 2): “The next issue is the cost of treatment for the elderly who may no longer have good financial status."
2. Financial problems related to dentists
(Manager of the ECC 2): "Look, the center cannot interact with dentists, because there are some families who have problems with the costs; they prefer to take them to a dentist themselves, because the cost of a dentist who comes here is completely different."
3. Problems with insurance and support organizations
(Dentist 3): "Failure to allocate dental insurance to the elderly causes financial problems; we cannot do anything about it and it leads to non-referral."

Problems related to dentists:

This theme consisted of 2 subthemes:
1. Lack of knowledge and experience of dentists about the treatment of the elderly
(Dentist 2): "The elderly may have unpleasant dental experiences at a younger age, which make them less eager to see a dentist, or scared, and this could be due to my insufficient experience, skills or knowledge.
2. Reluctance to provide service
(Dentist 5): "If there are similar tariffs, I would definitely not prefer to work for the elderly because it is harder."

Problems in the field of policy-making:

This theme is divided into three subthemes:
1. Lack of a specific responsible body for provision of dental care services to the elderly:
(Manager of the ECC 1): "In my opinion, for example, all ECCs should have a dentist; like the general practitioner who visits the elderly twice a week, a dental hygienist should be present to provide dental care to the elderly; for instance, brush their teeth and find solutions to their dental problems.”
2. Lack of a specific program for screening, prevention, treatment, and follow-up:
(Dentist 2): "Look, they do not have a dental care provider to check their oral health status; who should detect these problems? You need a facility to monitor these people’s oral health.”
3. Lack of a definite program for dental manpower providing care for the elderly
(Dentist 3): "Look, we have a lot of manpower in the public centers, for example, you are a dental student, and they can arrange a working shift for you in ECCs."

Table 1- Perceived barriers of dentists and managers of ECCs regarding provision of oral health services to the elderly

Main themes	Subthemes
Access problems	Lack of referral of the elderly to dental care centers
	Unavailability of oral healthcare providers in ECCs
	Unavailability or lack of equipment in ECCs
	Lack of a dental care facility in the ECCs or not allocating a space for dental care providers
	Problems related to transportation of the elderly
Disability problems	Problems associated with old age and various diseases
	Need for a companion
Financial Problems	Insufficient knowledge and awareness
	Financial problems of the elderly
	Financial problems of dentists
	Problems with insurance and support organizations
Problems related to dentists	Lack of knowledge and experience of dentists about the treatment of the elderly
	Reluctance to provide services
Problems in the field of policy-making	Lack of specific trustee to provide services
	Lack of a specific program for screening, prevention, treatment, and follow-up
	Lack of a specific program for service provider manpower

Discussion

The findings of the present study showed the opinions of two important stakeholders involved in oral health promotion of the elderly namely dentists and ECC managers. The participants in this study pointed out problems in accessing dental care services, disability of the elderly, financial issues, and cooperation of dentists and policymakers as factors hindering the provision of oral healthcare to the elderly.

According to the results of this study, oral health services are not fully available to the elderly in ECCs. The accumulated unmet oral health needs of the elderly seem to be a global issue since around 60% of a group of elderly from Poland [27], more than 50% of the elderly in Lebanon [28], and around 90% of the elderly from seven Latin American countries [29] showed various degrees of unmet dental needs.

Lack of adequate equipment and lack of suitable space for dental examination and treatment in ECCs were reported as other barriers. Dentists have to take the equipment they need to the ECCs. This can discourage them to provide services in the ECCs. In some studies, lack of sufficient dental equipment in ECCs was reported as one of the barriers against oral health

service delivery. [17, 18]

Lack of facilities for the elderly, especially those with mobility problems, makes their transportation more difficult. Problems related to this subject were stairs, wheelchair accessibility, discomfort while being transferred, transportation cost, risk of falls, and waiting in the dental office as examples of architectural barriers.[30] In some studies, the need for inter-organizational cooperation including local government, public transport, and health organizations was suggested to reduce transportation problems for the elderly. [5, 12, 31]

Provision of on-site dental services, mobile dental units, using dental students to do their educational practicums at ECCs [32], screening by oral health auxiliaries, and teledentistry procedures [33] have been suggested as methods to increase the availability of oral healthcare for the elderly.

The disability of the elderly was another major barrier reported by the participants of this study. This was in line with the findings of a study by Chung et al. [19] who reported that more than 70% of older people required caregivers to provide oral care for them. Complying with such a larger volume of healthcare need is a big challenge for any healthcare system when considering that only 10% of those who need help may actually receive this help. [26] Introduction and employment of auxiliary dental personnel with more focus on preventive oral health services both in the public and private sectors would facilitate the provision of oral healthcare services to the elderly.

Other major barriers were the financial limitations of the elderly and the high cost of dental services. Findings of a national survey in the United States showed that cost was the most significant barrier keeping older Americans from accessing the needed dental care.[34] Montini et al. [5] suggested that the problem of treatment costs can be partly solved with the cooperation of ECCs and dental schools. In many countries, there is no adequate insurance coverage for the elderly, and the performance of the government and support organizations in this regard has been insufficient. [15, 18, 27, 35] On the other hand, it has been shown that insurance coverage positively influenced access to preventive care for periodontal diseases and placement of dental implants in the elderly.[36, 37] This finding calls for more efforts to persuade the insurance companies to cover the elderly's dental treatments.

Problems related to dentists were other major barriers. Experienced dentists in this study acknowledged that dental students do not have sufficient knowledge, therapeutic experience, and self-confidence to treat the elderly with systemic problems. Hopcraft et al.[18] studying the state of dental care in Victoria, Australia, found that only one-third of dentists had received enough practice and experience during their undergraduate period. They also mentioned that most of the dentists who had worked with ECCs in the last 12 months, were the ones who received sufficient experience and training. Lack of knowledge, experience and competency in this regard can lead to inappropriate treatments, reduced desire of the elderly to receive oral health services, increased dental fear, and distrust of the elderly in dentists. [27] This requires emphasizing on the related topics in dental education both in undergraduate curriculum and postgraduate continuing education courses.

The next major barrier was policy issues. Participants of the present study mentioned lack of a well-organized body responsible for providing oral healthcare services to the elderly. Other studies also mentioned the need for such an organization and also cooperation of the oral health system and ECCs. [16, 27, 38] High rate of population aging in Iran and similar countries necessitates a comprehensive policy to integrate various aspects of the elderly health along with the collaboration of all stakeholders in this regard. Using the experiences of countries like Japan with more than 60 years of experience in health policy for older adults would be beneficial to eliminate the existing barriers. [39]

Participants in this study suggested that training and employing oral hygienists, volunteer dentists, and compulsory service plans by dentists, as well as regular checkups for the elderly could greatly help improve the oral health of the elderly. According to a study by Hopcraft et al. [18] more than 90% of head nurses and nearly 80% of dentists mentioned the need for trained oral healthcare providers, and suggested increasing the number of specialized hygienists and also adding 6–12-month check-ups to the ECC programs.

Adoption of a team work approach with the involvement of dental auxiliary personnel as mid-level healthcare providers for oral health promotion of the elderly has shown promising results in many countries like Japan, Sweden, and the United States. These personnel could be trained in a shorter time and with a lower budget in comparison with dentists in order to conduct a wide range of oral health promotion activities. [40]

In summary, bearing the concerns of the participants of this study in mind, the following list of actions is proposed for the promotion of oral health of the elderly in Iran:

• The Welfare Organization with the help of dental schools must develop an oral healthcare code of practice for all ECCs with clearly defined health promotion activities based on risk assessment of the elderly.

• Developing a regular in-service oral health care training plan for the ECC personnel to provide knowledge, skills, encouragement, and support for their health promoting activities.

• The Ministry of Health requires to provide a comprehensive health policy that covers all health needs of the elderly together with sufficient and appropriate motives for the healthcare personnel.

• Creating a coalition including all public and private resources to advocate for health promotion of the elderly

• Dental schools are expected to enhance dental students' competency regarding oral health promotion of the elderly.

Conclusion

The findings of this study indicated a wide range of barriers related to service recipients, service providers and policy-making authorities. Removing these barriers requires cooperation between various sections of the Ministry of Health namely education, health and treatment sectors, the Welfare

Organization, and professional dental organizations in order to improve the provision of oral healthcare services to the elderly.

Conflict of Interest

No Conflict of Interest Declared■

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