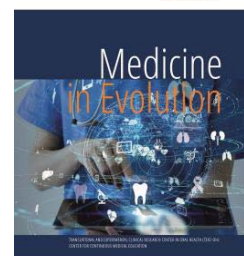


Dental care for the institutionalized elderly population – A literature review



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Abstract

The current article is meant to be a literature review based on our findings regarding the dental care issues in the geriatric community.

The purpose was the focus to finding out information about what communities from around the world are doing in terms of dealing with the issue of an aging population and how to deal with the dental problems associated with aging and other comorbidities, thus involving a cardio/ general medicine diagnosis and a legal one when the patient is no longer able to tend to themselves or is institutionalized.

The material taken in this study was a full literature review based on pub med indexed articles from different parts of the world dealing with the same issues and corroborating the results and findings into categories of interest.

Keywords: geriatrics, institutionalized elderly, dental care for the elderly, dental geriatric care, cardio dental issues

INTRODUCTION

This literature study came to its fruition after a personal struggle with the subject of geriatric dental care the authors have experienced when observing the elderly and their dental care needs. As clinical dentists, general practitioners, lawyers, cardiologist and university affiliates, we have underlined the need for a better management of the aging populations worldwide. This review is aimed to identify the role of geriatric dentistry in end-of-life palliative care, in the institutionalized elderly and the home-based older population by synthesizing the published scientific literature on the topic and analysing its significance and contributions. The lack of national oral health care / prevention and palliation for the institutionalized patients had us thinking of solutions to better this situation in terms of nationwide organization. It was rewarding to find that other countries struggle with the lack of dental care for this demographic as well and to research further their solutions and future. The issues of law and ethics, development of public and community oral health programs for the geriatric population and plans as well as trends for the future will also be discussed. Material and method used was researching the literature on diverse topics regarding geriatric dental care and issues. We have looked at worldwide publications and original research on the topics surround our interests. The results have shown considerable need for this issue and in conclusion we are on the brink of a much wider research and potential for this topic. Romania has a fertility rate of under 1,8 births per woman according to the national centre of statistic while the death rate is skyrocketing. After closely considering this information, we are bound to understand that in terms of dental, legal and cardio/ general medicine care we need to be prepared for an influx of elderly issues in our patients for the upcoming years as the population in our country is aging at a fast rate and we need to cater to its medical needs. Therefore, the dental issues we need to focus on are directly related to the patient's general status, his or her comorbidities and place of residence.

Aim and objectives

The questions we asked ourselves to develop this literature review were the following: Do our patients have access to modern facilities? Do they live in a home, are they institutionalized, do they have around the clock care, can they tend to their needs, or do they need assistance? Our aim was to find if the literature also considers these imminent issues and what they have found based on their area or demographic. The results are gladly considerable in terms of information and statistics related to comorbidities and general political and legal aspect of issues surrounding the elderly all over the world. Our objective was to narrow down categories to look more deeply into in a future study and development of better self and general management of treating the elderly.

MATERIAL AND METHODS

According to Digi24: Romania takes 2nd place in the world ranking when it comes to mortality rate and is also low in the rate of birth rate. The Romanian government has also expressed concern about the catastrophic demographic decline [1].

According to another source we have found, the status of oral health in the senior population is directly influenced by the edentulousness factor as well as other general and local health complications that are strictly in link with age, social status, whether they are institutionalized or not, and other quality of life directly influencing factors. Insurance is a powerful influencer as well as a contributor to future health deterioration of the oral aspect [2].

Several studies that we have found show incredible improvement when caretakers are properly educated and trained in the field of oral health care and prevention intending to the senior population. Many subjects covered have been, understanding of senior needs, correct documentation and establishing protocols and routines [3].

The proportion of senior citizens continues to grow, especially in developing civilized countries. Poor oral health in the senior community among has been related to an increased level of tooth loss, dental caries and periodontal disease, xerostomia, and oral cancer. Even though many countries deal with the problem of an elderly and continuing to grow elderly demographic, there are reasons why this is happening, and the authors have identified the following: health insurance, economic development and level, social and cultural differences [4]. The authors we have researched have also battled and discovered they are missing national epidemiological data on the oral status of the population as well as requirements for implementing epidemiological programmes and strategies to improve oral health for the aging population to come.

RESULTS

The interesting results found in our reviews are as follows, we have selected for this paper, just the most relevant in terms of future directions for our research: we have closely covered a study done by dentists in Berlin about the level of dental care in institutionalized elderly people. The study was substantial consisting of 364 patients spread over many geriatric care units in the city of Berlin. 87.3% of the patients were female and the average age was 84.9. the study was conducted using a questionnaire and an oral examination. This assessed the individual's satisfaction with the nursing home they resided in, the care to their general and oral health as well as their overall satisfaction with their status. The results of the study showed that the subjects did not benefit from routine dental checkups, their oral health was not at its best in less than 12.6% of the cases, full denture hygiene was at 45 % satisfaction. Out of the interviewed subjects, only 37,6 of the full mouth dentures has adequate stability and retention and in 80 % of the cases there was need for more dental work, the conclusions of the study were that there was need for recommendations and for improvement [5]. This finding was to us one of the most relevant and a model in terms of the research we must conduct in our geographical area to better find the real situation of our country when it comes to this subject.

Another interesting finding we found relevant was a World Health Organization report on the oral health status of people aged 65-74 in 21 countries showing that the prevalence of total edentulousness ranges from 12.8% to 69.9%. the study proves that the highest values are found institutionalized elderly [6]. The health status of institutionalized people is affected by numerous associated comorbidities [7].

DISCUSSIONS

Regarding future directions of study or discussions, our findings have shown different aspects about geographic location of elderly, socio economic background, family possibilities, level of education, access to resources, political background and social reforms based on the needs of the elderly in each country. The directions of study are immense in the sense of legal work, cardio/dental corroborations and socio economical aspects regarding the management and treatment of institutionalized elderly., we are taking into considerations, protocol development, technology used and needed to treat people in their homes or institutes where they are residing, the legality behind such medical acts, etc. [8].

CONCLUSIONS

In order to make a full circle of our findings we must consider the most important one based on the Hippocratic Oath and that is of not doing harm, as much as we want to treat the needs of the elderly as they are institutionalized or home bed ridden, we must always consider the legal aspects of the quality of good we are doing and as the author and the law states : the sanitary unit will be able to prove either that the insufficient facilities or improper conditions are not attributable to it, or the intervention of an exonerating foreign cause of liability - regarding the insufficient endowment with medical diagnostic and treatment equipment, the legislator considered insufficient endowment related to the quality standards imposed on the sanitary unit, failing to impute the sanitary unit not to purchase the latest types of medical equipment available in the medical market [9] therefor we have included this in order to underline the importance of making sure the quality of services is standard to the conforming rules and regulations.

Other aspects to consider are the cardio / general health of the patients and how the medication they take influences their oral health/hygiene and pathology. Kinetics and mobility are also paramount and this is where patient kinesiotherapy and mobility exercise play an important role and according to publications in the field there is a strong association between neck circumference and abdominal circumference, body mass index (BMI), weight and resting metabolism [10] mobility is important for patients in order to be able to perform their natural hygiene movements, therefor obtaining a rightful oral hygiene. We are positive the future of this research is ample and generous, and we look forward to developing it further.

REFERENCES

1. <https://www.digi24.ro/stiri/actualitate/social/cia-romania-urca-pe-locul-2-mondial-in-clasamentul-ratei-mortalitatii-ministrul-firea-un-declin-unprecedented-demographic-2035387>
2. Knabe C, Kram P: Dental care for institutionalized geriatric patients in Germany. *J Oral Rehabil.* 1997;24(12):909-12.
3. Murariu A, Vasluianu R, Baciu R.E, Gelețu G, Roșu S, Bolat M., Ioanid N., & Bobu L: Trends in oral health of the elderly: A literature review. *Romanian Journal of Oral Rehabilitation*, 2021; 4(13): 22-28
4. Precupețu I, Mihalache F, Petrescu C., Pop C.E., Tufă L., Marian V: Calitatea vieții vârstnicilor. *Tendențe și riscuri în contextul pandemiei*, Institutul de Cercetare a Calității Vieții, 2021: 9
5. Kenny A, Dickson Swift V, Chan CKY, et al.: Oral health interventions for older people in residential aged care facilities: a protocol for a realist systematic review. *BMJ Open* 2021; 11:1-9
6. <https://www.diva-portal.org/smash/get/diva2:1725423/FULLTEXT01.pdf>
7. Lamy M: La santé bucco-dentaire des personnes âgées. *Rev Med Liège*, 2014; 69(5-6): 357-360
8. Tănase AD: Răspunderea civilă pentru malpraxisul medical, Editura Universul Juridic, Bucuresti, 20224: 400
9. Sîrbu E, Pantea C, Gligor Ș: Social Implications of Nutritional Status and Consequences on Cardiovascular Risk Disease among Undergraduate Trained Students, *Revista de Cercetare si Interventie Socială*, 2014; 45:121-131.
10. Olariu I., Cosoroaba R. M., Popovici R. A., Pitic (Cot) D. E., Lile I., Marian D., Fluieras R., Stana O. L. Management of Dental Care for Elderly Patients, *Medicine in Evolution* Volume XXX, No. 1, 2024