



Oral Health-Related Quality of Life in the Case of Elderly People from Romania Before and After the Prosthetic Treatment

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ABSTRACT

Background/objectives: To assess the quality of life among patients presented with chronic post-stroke patients in **Objective:** The objectives of this study were to analyse the individual perception of oral health status for a group of elderly patients in order to future improve the provision of dental care for these people. Elderly people are an integral part of society. The quality of these people's lives is major concern. The quality of life-related to oral health has important implications for the clinical practice of dentistry and dental research and thus on the patient. Even if these people are not of practical interest for the society they are the pillar of its formation and therefore the quality of their lives is an important aspect. **Methods:** We selected a group of 233 elderly patients to whom we addressed Oral health-related quality of life (OHRQoL) and the Dental impact on daily living (DIDL) which indicates an individual's level of well-being, both before and after the prosthetic treatment ($p < 0.001$). **Results:** We notice that there is a particular perception of oral health in these people and thus on their quality of life. These study evidence the impact of prosthetic treatments on quality of life in elderly people from Romania. **Conclusion:** According to the results, we have identified a number of issues that need to be considered in the future, in the practical approach of dentistry, as well as in the development of strategies in order to address the complex problems of this age group.

Keywords: Quality of life, Elderly, Oral health, Dental, Prosthetic, Treatment

INTRODUCTION

Oral health means more than healthy teeth and has social implications, especially those related to the quality of life. The association between oral health and life quality is a relatively new concept and it presents a continuous and rapid dynamic [1,2]. The present study, based on questionnaires, revealed the existence of a clear correlation between low life quality and poor oral status, associated most often with limited access to dental services. The quality of life refers to physical, mental and social well-being, as well as the patients' ability to carry out their usual tasks in their everyday life. Measuring of quality of life at the level of individuals provides additional data about their health status and about the positive or negative effects of health care. Determinations regarding dental needs should include not only clinical assessments but also psychological and social dimensions [3]. Socio-dental indicators represent a determination of the extent in which oral diseases have an impact on ordinary activities or a determination of the extent in which dental and oral problems have an impact on normal social activities and produce major behavioral changes [4].

The aim of our paper was to assess the social and demographic factors which influence the quality of life for a group of elderly edentulous people. The objectives of this study were to obtain data about the individual perception of oral health status on a group of geriatric patients in order to future improve the provision of dental care for these people.

MATERIALS AND METHODS

This study used OHRQoL consisting of 12 questions and DIDL consisting of 36 items, which assesses the oral impacts on daily living [2,5]. The Dental impact on daily living (DIDL) is a socio dental measure which assesses five dimensions of quality of life comfort, appearance, pain, daily activities, eating. It is used on a global scale and it is

thought that its results have a major impact on analysing the quality of life for elderly people taking into account their oral health [5,6].

The study was conducted over a period of 2 years and is based on the completion of questionnaires by the patients of the Dental Prosthesis Clinic from an urban area, which asked for dental care. The selection criteria for study participants consisted in: age over 55, psychic competence, decision-making capacity, legal competence and with an extension up to the age of 75. Selected patients who required different prosthetic treatments benefited from a complete and correct clinical examination and together with the paraclinical examinations the diagnosis and the treatment plan with the therapeutic solution were established. The questionnaires were given to the patients both at the initial oral consultation and also one month after the completion of prosthetic treatment. Below one can find the format of the questionnaire (Tables 1 and 2). The informed consent of the study participants was obtained and signed in advance.

The number of patients who took part in the study was 233 (151 women and 82 men) and the corresponding number of questionnaires was delivered; those people agreed to take part in the study and fully completed all the questionnaires. There wasn't a single questionnaire that was left uncompleted. The data obtained were collected and analysed.

RESULTS

The processing and analysing of data from these questionnaires led to a series of results related to the life quality of the study participants, in correlation with their oral health (Table 1).

Table 1 Analysing of data from these questionnaires

		Questionnaire		
Number of participants (%)		Questionnaire		SD
		Average value		
Total	233	Yes	No	
Female	151 (64.8%)	136.25	14.75	12.148388
Men	82 (34.19%)	72.25	6.75	5.3150729
Age group				
55-60	47 (36%)	109.5	5.25	8.7300794
61-70	88 (42%)	109.5	8.5	8.7300794
71-75	98 (22%)	4.25	5	5.3150729

There are differences in the answers according to the following socio-demographic variables: age (the patients aged under 65 are more content in comparison to those over 65 (Table 2 and Figure 1), sex (females are more content in comparison to men) (Table 3), level of education (higher educated people positively appreciate personal life in comparison to people with fewer studies [7,8].

Table 2 Assessment of the quality of personal life according to distribution by age

Questions	Age groups					
	55-60 years		61-70 years		71-75 years	
	Yes	No	Yes	No	Yes	No
1. Perceiving satisfaction regarding personal life	97	7	97	8	5	4
2. Optimism in the future	114	9	114	7	14	3
3. Perceiving satisfaction regarding social life	109	3	109	10	9	5
4. Perceiving satisfaction regarding emotional life	119	2	119	9	17	8

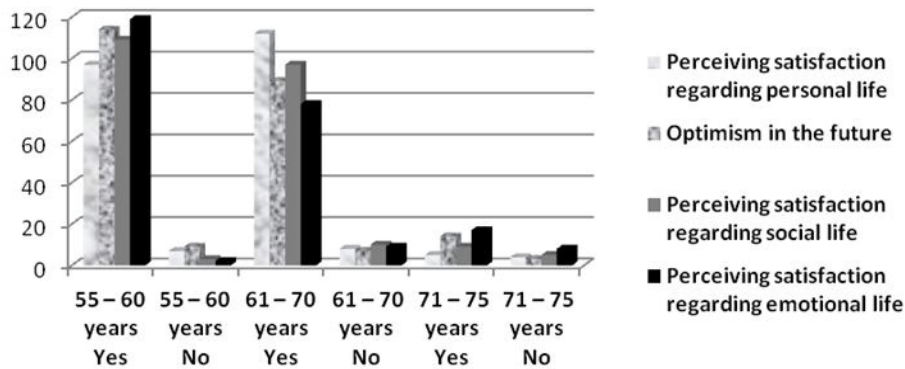


Figure 1 Graphical distribution of life quality by age

In Table 2, question 1, which refers to the satisfaction towards personal life, one can notice that the number of female subjects which state that they are content with their personal life was higher than those of male respondents (64, 70% vs. 54%) [9]. The same situation appeared for question 2, where the percentage of people who are optimist was higher among female respondents, 76.5% in comparison to 46.6% of the male respondents. The feeling of contentment towards social life was positively appreciated by a higher number of male respondents, 60%, in comparison to the female respondents, 47%.

Table 3 Assessing the quality of personal life by gender distribution

Questions	Gender			
	Women		Men	
	Yes	No	Yes	No
1. Perceiving satisfaction regarding personal life	145	6	78	4
2. Optimism in the future	132	19	69	13
3. Perceiving satisfaction regarding social life	121	30	81	1
4. Perceiving satisfaction regarding emotional life	147	4	73	9

When analysing the perception of satisfaction towards emotional life one can notice that the percentage of people who positively appreciate their emotional status was higher among female respondents, 82%, in comparison to male respondents, 46.6% (Figure 2) [10].

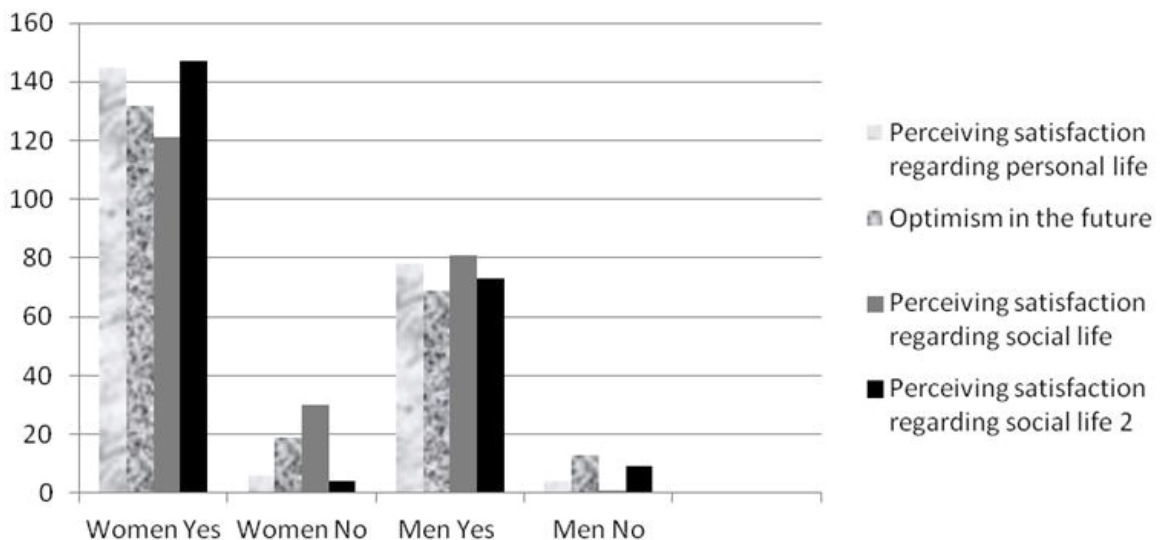


Figure 2 Graphical distribution of life quality by gender

When it comes to the risk factors for oral health, the answers were analysed both from the point of view of the age,

as well as from the point of view of the educational status [11,12]. This part of the questionnaire was comprised of 7 questions that emphasize on an unhealthy diet, poor oral hygiene, as well as on the reasons for visiting a dental ward [13,14]. Sweet consumption was pretty high for all age groups, but especially for those people aged 55-60, with a percentage of 82%. From the data below, we notice that 72% of the women are content in comparison to men, whose degree of satisfaction is only 47% [15,16].

Once they get older two times per day dental brushing decreases, and in this study dental brushing was reduced for all age categories, 55-60 36%, 61-70 years 42%, 71-75 years 22%. When it comes to the oral hygiene adjuvant methods, the category 71-75 years has the lowest percentage, 11%. Visits to the dental ward take place only urgent for every age group. A relatively low number of people return to the dental ward for routine checks and dispensations.

After analysing the oral health factors risk factors in relation to the level of education we noticed significant differences from a statistical point of view between the subjects with a low level of education (secondary and high school education) and those with a high level of studies (undergraduate and postgraduate studies). These differences clearly show a higher frequency of the risk factors analysed for the subjects with a lower level of education. Another questionnaire applied Oral health-related quality of life (OHRQoL) and Dental impact on daily living (DIDL) measure (X- Questions, S- Score, n- Number of questions), before and after the treatment led to a series of results about the respondents' perception regarding life quality. The questionnaire includes questions related to dental problems, eating food, avoiding harsh foods, swallowing problems, speech problems, mastication, dental sensitivity, gums, medication, dental sensitivity, aesthetic appearance and social aspects [17].

To calculated score, responses within each question were summed and divided by the number of items, resulting in a score.

The final score is given by $S = \frac{\sum_{i=1}^n x_i}{n}$

Impacts were: '+1' for positive impacts, 0 for impacts not totally negatives and '-1' for negative impacts.

The importance attributed to a feature is directly associated with the person being asked and how she perceives the question 2.

When it comes to mastication we notice that the answers "never" presents a higher pre-treatment percentage for questions 1 and 2 9%, 5% and a lower post-treatment percentage of 7%, 4%. For the question about consuming hard food, the percentage was the other way around; we notice a discomfort of 9% when consuming hard food, which grows up to 14% for the post-treatment.

We also notice that most of the respondents (16% for pre-treatment) said that they didn't have any problems when swallowing and for post-treatment the percentage is almost the same-14%; 12% of the respondents said that they didn't have any speech problems caused by dentures in post-treatment (in comparison to 15% in pre-treatment). For the questions related to the limited contact with other people both in pre-treatment and in post-treatment, 10% of the respondents offered the same answers. When it comes to the aesthetic side of teeth, gums and prosthetic procedures, the percentage is significantly higher for the post-treatment, 9% to 14%.

In pre-treatment, 14% of the respondents said that they "very rarely" take any medication to reduce pain in the oral cavity and they also "very rarely" feel guilty about the condition of their oral cavity (14%). When it comes to post-treatment, the number of respondents who take medication decreases to 11% and that of those who feel guilty about the condition of their oral cavity significantly decreases to 5% (Figure 3).

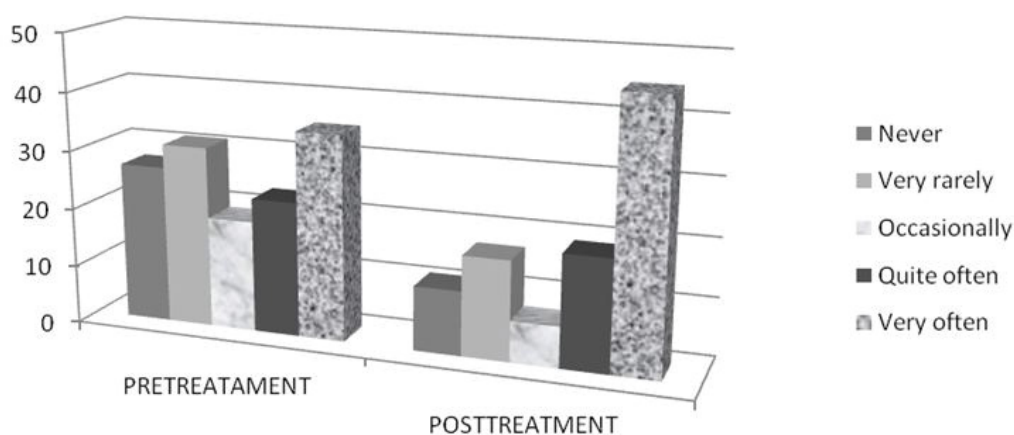


Figure 3 The satisfaction degree of patients pre-treatment and posttreatment

We notice that the following treatment a series of questions that reflect the patients' well-being has significantly grown in percentage, with an average of approximately 11%.

Nowadays, the life quality concept has a much wider perspective due to the increased role of the social determinants in the appearance of chronic conditions. It is well-known that they are closely connected to negative behaviors when it comes to health, the environment in which individuals develop, the perception towards the state of well-being, and they are all closely correlated to the social and demographic factors.

DISCUSSION

The influence of the socio-demographic factors on the quality of the life of the adult population shows that:

According to age, we notice a decrease in the quality of life under different aspects; at the ages between 55 and 65 the consumption of sweet food is higher in comparison to the patients aged above 65, alcohol consumption grows as people get older and the consumption of fruit and vegetables is present at all age categories.

According to the sex distribution, we noticed that women are mostly happy with their personal lives and that they are optimistic about a future positive change.

According to the level of education the differences noticed refer to the behaviour and attitude towards diet, and there are more people with higher education that eat fruits and vegetables daily; a low educational level is associated with other risk factors for oral health, such as the daily consumption of alcohol; oral hygiene methods are part of the behaviour of the people with a higher educational level.

CONCLUSION

Conclusions Related to the Analysis of the Elderly Patients' Answers towards the Oral and Dental Impact on Daily Living (DIDL) Questionnaire

The most important improvements perceived after the treatment by the survey participants referred to mastication (the consumption of hard food: apple, meat, a decrease in the discomfort of hard food consumption); improvements, but not as significant as in the case of mastication were recorded after the treatment in phonation and physiognomy.

Post-treatment perception regarding the oral and facial aesthetic aspects triggered some post-treatment answers related to the improvement of social contacts among these geriatric patients.

The geriatric people who took in the study state, before the treatment, that the problems about the oral status come from or create worry in many cases, "very rarely" it is possible that patients have shown under-appreciation of the state of fact, since they finally required prosthetic treatments; therefore, it is interesting to have a subsequent comparative survey between the patients' perception of the oral status and the objective situation at the level of the oral cavity, ascertained by the doctors' clinical and paraclinical investigations, as well as a comparison of the situation in private and public clinics on these particular aspects.

The participants answered before and after treatment that they “never” or “very rarely” present dental sensitivity to thermal or chemical agents.

A general improvement of the status of the whole geriatric patients’ sample was noticed.

The future generations of elderly people will most likely have an improved status of the dento-maxilar device in comparison to that of the current generation and they will also have a different attitude about oral health and the use of health systems.

DECLARATIONS

Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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