

REVIEW: ASSESSMENT OF QUALITY OF LIFE IN PATIENTS PRESENTING PERIODONTAL DISEASE IN ROMANIA AND REPUBLIC OF MOLDAVIA

POMPILIA GHERMAN¹, LAURA ȘTEF², ROMEO MIHĂILĂ³

^{1,2,3} "Lucian Blaga" University of Sibiu, ³ County Clinical Emergency Hospital Sibiu

Keywords: oral health/ quality of life/ periodontal disease and quality of life Romania/Moldavia; OHIP Romania/Moldavia

Abstract: The periodontal disease represents an important oral health issue with impact on the quality of life. The oral health-related quality of life indicators are used to measure the impact of oral conditions on quality of life to complement clinical data.(1) The objective of this study was to review the studies referring to the quality of life in Romanian and Moldavian patients with oral conditions, especially those concerning the periodontal disease. A search was carried out on PubMed, Cochrane, Google, Google Academics, Web of Science and Scopus including the studies published between 2008 and 2018. A total of 13 studies was retained for which we obtained full-article access for further analysis. Among all studies, twelve (12) were observational, while one was a case-control study. The number of individuals tested varies between 50 and 865. We identified 8 instruments used to assess the quality of life and the most frequently used was OHIP 14 (7 times). All of the studies that assessed dental conditions reported a negative association with the health related quality of life. We have identified 3 studies published that estimate a lower quality of life in people with periodontal disease.(2,3,4) The degree of severity of the periodontal disease is proportional with decrease of the quality of life. In conclusion, periodontal disease has an important impact on general health and diminishes the quality of life as proven by various publications. We consider that the evaluation of quality of life related to oral health should be associated to a standard oral exam in order to perform a more complete patient evaluation. The OHIP 14 instrument could be a useful questionnaire to evaluate these groups of subjects.

INTRODUCTION

The World Health Organization (WHO) defines health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity".(5)

Based on this definition, the quality of life is being described as "individual's position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns".(5)

Measurement of the impact of oral conditions on quality of life should be part of the evaluation of oral health needs because clinical indicators alone cannot describe the satisfaction or symptoms of dental patients or their ability to perform daily activities.(6) Therefore, there have been developed some indicators such as Oral health-related quality of life (OHRQoL) indicators that could help evaluating the effects of disease or health over different aspects of life: discomfort, pain, functional impairment, limitation and alimentary restrictions, communication and social integration, personal relationships and daily activities.(7)

The Oral Health Impact Profile (OHIP) was developed with the aim of providing a comprehensive measure of self-reported dysfunction, discomfort and disability attributed to oral conditions. The OHIP is concerned with impairment and three functional status dimensions (social, psychological and physical).(8)

It is important to note that the OHIP aims to capture the adverse outcomes that are related to oral conditions in general, rather than impacts that may be attributed to specific oral disorders or syndromes.

OHIP 49 validated for adult use (Oral Health Impact Profile developed by Slade and Spencer) represents one of the first questionnaires that use a Likert type scale to indicate the frequency of the impact that had occurred.(8) Furthermore, in order to evaluate oral health among children population, there are some adapted questionnaires available, such as Child-OIDP.(9) The Oral Health Impact Profile (OHIP-14) (Slade and Spencer 1994) and the Oral Health Impact Profile 14 (OHIP-14) (Slade and Spencer 1994) and the Oral Impact on Daily Performance (OIDP) (Adulyanon et al.1996) are the two most commonly used indicators of subjective oral health status within oral epidemiology.(10)

PURPOSE

We evaluated the studies published in Romania and the Republic of Moldavia in the last 10 years concerning the quality of life in relation with oral health, especially in subjects with periodontal disease.

MATERIALS AND METHODS

We performed a research in different databases between January 2008 and January 2018 (PubMed, Cochrane, Google, Google Academics, Web of Science, and Scopus) and studies in English and Romanian were included.

Our aim was to also be able to identify the studies not indexed in Medline.

Inclusion criteria:

We included cohort studies, cross-sectional and case-control studies that refer to the quality of life in both adults and

¹Corresponding author: Pompilia Gherman, B-dul. C. Coposu, Nr. 2-4, Sibiu, România, E-mail: pompiliagherman@yahoo.com, Phone: +40723 255473

Article received on 23.07.2018 and accepted for publication on 03.09.2018
ACTA MEDICA TRANSILVANICA September 2018;23(3):17-19

children with oral health issues (cavities, parodontopathy, gingivitis, tooth loss).

Exclusion criteria:

We excluded the studies that failed to use valid indicators for the quality of life, resumes from conferences, license, PHDs and case - reports.

We identified a total of 33 publications. After assessing the titles and the abstracts, we eliminated duplicates and studies proven irrelevant for our research and a total of 13 studies was retained for which we obtained full- article access.

Two of the studies identified describe the instruments used to evaluate the oral health impact, without being applied on the population.(11,2,12)

Among all studies, twelve (12) were observational, while one was a case-control study. The number of individuals tested varies between 50 and 865. We identified 8 instruments used to assess the quality of life and the most frequently used was OHIP 14 (7 times).

DISCUSSIONS

We consider it is important to mention that the Romanian version of OHIP 14 was validated in 2013 on a cohort study of 187 participants, allowing its use on adult population.(13) Furthermore, OHIP 14 is already known and used in different European countries and considered as a good instrument to evaluate the quality of life in patients with oral health issues.(14,15,16)

One of the studies permitted the validation of OHIP 49 on adult population in Romania, but the authors mention the necessity of applying the questionnaire on a varied population, counting on the provenance (rural or urban area), educational and social status. (17)

Another study follows the quality of life among first year medical students by evaluating the quality of sleep, difficulties in waking-up and fatigue in relation with the oral hygiene measures of each individual, proving an association between a lower quality of life in subjects with poor oral health.(18)

Two studies assessed the quality of life on different age-groups. In the first study published in 2009, OHIP 14 was applied on 170 patients with ages between 45 and 64 years old, proving a negative impact on the quality of life in patients undergoing frequent dental procedures.(19) We mention again that the OHIP 14 was considered valid in Romania only after 2013.

The second study estimated the quality of life in a younger group of 174 patients with ages between 18 and 34 years, suggesting that the younger population undergoing dental procedures might have a lower life quality.(20)

We identified a single study published in the Republic of Moldavia which assesses the quality of life in children with oral health issues, but it does not identify the presence of periodontal disease.(21)

We have three studies published that estimate a lower quality of life in people with periodontal disease.(2,3,4) The degree of severity is proportional with decrease of the quality of life.

In the first of these studies, we have a population of subjects undergoing chronic dialysis whom were diagnosed with different stages of periodontal disease, but the questionnaire applied to the subjects identifies some general symptoms such as pain, fatigue and it does not estimate oral symptoms that could be related to a poor quality of life. It proves, though, that the patients with severe oral health issues have a low quality of life but the severity of the chronic kidney disease and the eventual complications related to chronic dialysis are not metioned.(20)

The second study also confirms on a cohort of 50 patients the association between a severe periodontal disease and a low health quality of life index.

The third study evaluates the presence of periodontal disease in 12 years old children by using the Community Periodontal Index. There were a total of 19.3% children identified with periodontal disease, and the results were associated with negative impacts on social and physical functioning.(21)

We did not find any publications referring to geriatric patients, periodontal disease and quality of life and we consider we should perform more studies in order to have a complete overview on the impact of periodontal disease in this specific population.

The review confirms that insufficient oral hygiene and oral health issues have an important impact on the quality of life. Periodontal disease is an oral health problem even in young children and the association of other diseases decreases the quality of life.

Strengths of this review:

We practiced a research in different databases in order to find the studies related to our subject of interest in order to identify even the studies not indexed in Medline. In our knowledge, it is the first review that assesses the quality of life in different populations in Romania and Republic of Moldavia.

Limitations of our review:

Only studies in Romanian and English were included published on a period of 10 years. We did not perform a comparison with the studies published internationally.

CONCLUSIONS

Periodontal disease has an important impact on general health and diminishes the quality of life as proven by various publications. We need to understand which are the factors that determine the development of the disease in order to try to ameliorate the subjects' oral health.

We consider that the evaluation of quality of life related to oral health should be associated to a standard oral exam in order to perform a more complete patient evaluation.

The OHIP 14 instrument could be a useful questionnaire to evaluate these groups of subjects.

REFERENCES

1. Montero-Martín J, Bravo-Pérez M, Albaladejo-Martínez A, Hernández-Martín LA, Rosel-Gallardo EM. Validation the Oral Health Impact Profile (OHIP-14sp) for adults in Spain. *Med Oral Patol Oral Cirugia Bucal*. 2009 Jan 1;14(1):E44-50.
2. Simona G, Silvia M, Carina B. Quality of Life Regarding Patients with Periodontal Disease in Iasi, Romania. *Procedia - Soc Behav Sci*. 2014 Apr 22;127:15-20.
3. Veisa G, Tasmoc A, Nistor I, Segall L, Siroopol D, Solomon SM, et al. The impact of periodontal disease on physical and psychological domains in long-term hemodialysis patients: a cross-sectional study. *Int Urol Nephrol*. 2017 Jul;49(7):1261-6.
4. Nuca C, Amariei C, Badea V, Balaban DP, Jipa I. Self-perceived oral health and clinical indices in 12 year-old children from Constanța, Romania. *Arch Balk Med Union*. 2009;44(4):303-10.
5. Saracci R. The World Health Organisation needs to reconsider its definition of health. *BMJ*. 1997 May 10;314(7091):1409-10.
6. Vigu AL, Stanciu D, Lotrean LM, Campian RS. Complex interrelations between self-reported oral health attitudes and behaviors, the oral health status, and oral health-related

- quality of life. Patient Prefer Adherence. 2018 Apr 12;12:539–49.
7. Slade GD, Spencer AJ. Development and evaluation of the Oral Health Impact Profile. Community Dent Health. 1994 Mar;11(1):3–11.
 8. Slade GD, Spencer AJ, Locker D, Hunt RJ, Strauss RP, Beck JD. Variations in the social impact of oral conditions among older adults in South Australia, Ontario, and North Carolina. J Dent Res. 1996 Jul;75(7):1439–50.
 9. Kushnir D, Natapov L, Ram D, Shapira J, Gabai A, Zusman SP. Validation of a Hebrew version of the child-OIDP index, an oral health-related quality of life measure for children. Oral Health Prev Dent. 2013;11(4):323–30.
 10. Haag DG, Peres KG, Balasubramanian M, Brennan DS. Oral Conditions and Health-Related Quality of Life: A Systematic Review. J Dent Res. 2017 Jul;96(8):864–74.
 11. Jipa IT, Amariei C. Calitatea Vieții În Relație Cu Sănătatea Orală: O Perspectivă Mai Largă; 2012.
 12. Bourgeois DM, Llodra JC. European Global Oral Health Indicators Development Project: 2003 report proceedings. Paris: Quintessence International; 2004.
 13. Slusanschi O, Moraru R, Garneata L, Mircescu G, Cuculescu M, Preoteasa E. Validation of a Romanian version of the short form of the oral health impact profile (OHIP-14) for use in an urban adult population. Oral Health Prev Dent. 2013;11(3):235–42.
 14. Buset SL, Walter C, Friedmann A, Weiger R, Borgnakke WS, Zitzmann NU. Are periodontal diseases really silent? A systematic review of their effect on quality of life. J Clin Periodontol. 2016 Apr;43(4):333–44.
 15. Grover V, Malhotra R, Dhawan S, Kaur G. Comparative Assessment of Oral Health Related Quality of Life in Chronic Periodontitis Patients of Rural and Urban Populations in Punjab. Oral Health Prev Dent. 2016;14(3):235–40.
 16. Rebelo MAB, de Castro PHD, Rebelo Vieira JM, Robinson PG, Vettore MV. Low Social Position, Periodontal Disease, and Poor Oral Health-Related Quality of Life in Adults With Systemic Arterial Hypertension. J Periodontol. 2016 Dec;87(12):1379–87.
 17. He S, Wang J, Wei S, Ji P. Development and validation of a condition-specific measure for chronic periodontitis: Oral health impact profile for chronic periodontitis. J Clin Periodontol. 2017 Jun;44(6):591–600.
 18. Dumitrescu AL, Toma C, Lascu V. Associations among sleep disturbance, vitality, fatigue and oral health. Oral Health Prev Dent. 2010;8(4):323–30.
 19. Murariu A, Hanganu C. Oral Health and Quality of Life Among 45- to 64-year-old Patients Attending a Clinic in Iasi, Romania. 2009;(2):5.
 20. Murariu A, Hanganu C. Oral Impact on Quality of Life Among Young Adults In Ia I. 2012;4(3):5.
 21. Impactul afecțiunilor dentare asupra calității vieții la copiii cu dizabilități intelectuale.pdf [Internet]. [cited 2018 May 29]. Available from: https://ibn.idsi.md/sites/default/files/imag_file/Impactul%20afectiunilor%20dentare%20asupra%20calitatii%20vietii%20la%20copiii%20cu%20dizabilitati%20intelectuale.pdf.