Quality of life - conceptualization and special characteristics related to oral health

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Summary

This article has as main objective to describe the concept of quality of life and its importance for the health system. The quality of life is a multidimensional concept and a plurality of definitions for this concept is in place. It can be measured using generic or disease specific instruments, using single dimension or broad-spectrum measures and also using profiles or indexes. Measuring quality of life is useful for clinical decisions, for prioritization of health interventions within a community and for resource allocation. Oral health has a huge impact on quality of life. Despite of the availability of some instruments and despite its obvious importance for the global productivity, the assessment of oral health related quality of life is even less spread. Strong advocacy should be put forth in order to develop certain surveys in the area while the national bodies within the health system should be mobilized to encourage the research and the regular assessment of oral health impact on the quality of life.

Key words: **quality of life, oral health, measurement instruments.**

The general framework of quality of life

The traditional way to assess the changes in patients' status has been focused on objective clinical or biological tests. These tests offer information related to the pathological processes, but they do not reflect at all the patient perception about the disease or his psychological status. However it is impossible to separate the disease itself from the patient's point of view and from his social perspective. These issues are related to the quality of life. Although the notion of good life has been mentioned by philosophers and sociologists for many years, the concept of "quality of life" started to be a focus since the 70ies.

There is a huge variety in defining quality of life as a concept [1]. The World Health Organization defines the quality of life as *"the individuals' perceptions of their position in life, in the context of the cultural and value systems in which they live and in relation to their goals, expectations, standards and concern."* Another definition is *"the extent to which an individual is able to achieve security, self-esteem and the opportunity to use intellectual and physical capabilities in pursuit of personal goals"* or *"the degree of need satisfaction within the areas of the physical, psychological, social, activ-*

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ity, material and structural needs." (Hørnquist, 1989). A more practical definition is given by Walker and Rosser [2] - *"a concept encompassing a broad range of physical and psychological characteristics and limitations which describe an individual's ability to function and to derive satisfaction from doing so".*

In the last decades patients' quality of life has become a central evaluation parameter that acts as an aid for:

- clinical decisions related to the choice of treatment strategies for an individual;
- the choice of the health interventions within a community;
- the resources allocation.

How can the quality of life be measured?

Health care professionals from all the medical specialties are becoming increasingly aware that one of the major goals of health systems and of medical care is to improve patients' quality of life. There are two approaches for the quality of life:

- the individual approach;
- the community approach.

In each approach there is an objective and a subjective dimension. The objective dimension refers to fulfilling the societal and cultural demands for material wealth, social status, and physical well-being and can be measured through quantitative indicators such as:

- for individuals - indicators of morbidity, duration of life, treatment's effects;
- for a population - the average income of the individuals, global indicators of health status, human development index, degree of poverty, cost-benefit analysis.

The subjective dimension is about feeling good and being satisfied with things in general and can be measured through individuals' perception regarding their physical, social, emotional, functional or spirituals abilities or feelings. A group of people can report a high level of QOL, while objective indicators of health, housing, income, and education for the same population might suggest a lower level of QOL, as compared to other people [3]. Many instruments were developed for measuring the quality of life. They can be characterized in terms of three continuums [4]: disease specific versus generic measures; single dimension versus broad-spectrum measures; and the range of values output.

1. The generic measures (SF-36, Sickness Impact Profile, Nottingham Health Profile) can be used for comparison between diseases and can be used for virtually all people. They allow comparisons across interventions and diagnostic conditions. The disease specific measures are developed for individuals in a particular disease or condition. They have "greater salience for physicians, better focus on functional areas of particular concern, and may possess greater responsiveness to disease specific interventions" [2].

2. Another dilemma is to use single dimension or broad-spectrum measures. There are measures that focus on particular activities such as walking, eating and dressing (Activities of Daily Living Index, Rand Functional Status Indexes), while others measure physical functioning plus other health related aspects such as symptoms, emotional status, cognition, perceptions of health (Sickness Impact Profile).

3. Multidimensional measures can provide sub-scale values for each dimension (profiles - Sickness Impact profile, Nottingham Health Profile, Short Form health Survey) or can aggregate all the sub-scales in a general score that describes the quality of life (indexes - Rosser Index, Quality of Wellbeing Scale)

Oral health related quality of life - evidences, instruments

While the use of health status measures to assess health related quality of life is well established in many areas of medicine, their use in dentistry has not been widespread. The oral health is part of total health and has a huge impact on quality of life. A survey conducted in United Kingdom [5] showed that 75% of the population perceived their oral health as impacting their quality of life in terms of: comfort, eating, affecting social life or the romantic relationship. Reisine and Weber [6] compared baseline quality of life scores of patients with temporomandibular joint disorders (TMD) against a group of patients with cardiac disorders and reported that TMD patients were disabled to a greater extent in the areas of sleep and rest, social interaction, intellectual functioning and communication.

The health researchers and the policy-makers recognize that the assessment of oral health related quality of life becomes more and more important for planning oral health-care programs and for resource allocation and also for advocating oral health. The information provided by these measures facilitates an increasing understanding of how individuals perceive oral health needs and what oral health outcomes drive them to seek health care [7]. This issue is very important in nowadays context of decreasing the resources for oral health and increasing the sophisticated treatment alternatives.

The need to develop patient based measures of oral health status was first recognized by Cohen and Jago, who indicated the lack of data relating to psycho-social impact of oral health problems at that time [7]. Various instruments were used after this in order to measure the oral health related quality of life. The same dilemmas are emerging: to use generic or disease specific measures. The psychometric properties of the generic measures are known, and comparisons can be made between populations with different problems using these scales, but there is concern that they are not sensitive to oral health outcomes [8]. Disease specific measures are more likely to detect the changes in specific conditions, having better responsiveness. A possible approach [2,9] is to use both an appropriate disease specific measure and a generic measure.

Some examples of instruments for oral health are discussed bellow:

1. General Oral Health Assessment Index (GOHAI) [10] contains 12 statements with a Likert scale format. The impact of oral disorders on health related quality of life is calculated by assigning an overall score.

2. Dental Impact Profile (DIP) [11] contains 25 statements divided into 4 sub-scales (eating, health/well being, social relations, romance), and an overall profile score is calculated as the proportion of positive or negative responses among all items answered.

3. Oral Health Impact Profile (OHIP) is a 49-item measure, with seven theoretical domains: functional limitation, pain, psychological discomfort, physical disability, psychological disability, social disability and handicap, with a Likert response format. Frequency of impacts is calculated by summing the reported negative impacts across the 49 statements. There is also a short version, OHIP - 14, with only 14 items, with good validity and reliability.

Further development

Despite the awareness concerning the importance of oral health related quality of life and despite the availability of such instruments, the research in the area in still underdeveloped. In Romania no evaluation of oral health related quality of life was made up to now. Strong advocacy should be displayed and the research community has to take action in order to develop national

surveys. Further methodological work is required to adapt the international instruments or to develop new national instruments. On the other hand, the national bodies within the health system should be mobilized, in order to encourage the research in the field, for a cost/efficient allocation of the resources with the final goal of improving oral health.

References

1. http://www.uib.no/isf/people/doc/qol/comp0000.htm
2. Walker SR, Rosser RM. Quality of Life. Assessment and Application. Lancaster/Boston/ Hague/Dodrecht. MTP Press Limited 1988; pp 9-50.
3. Treasury Board of Canada Secretariat. Quality of Life - A Concept Paper: Defining, Measuring and Reporting Quality of Life for Canadians. Available from URL: http://www.tbs-sct.gc.ca/pubs_pol/dcg-pubs/PubsDisc/qol_e.asp
4. O'Connor R. Issues in the Measurement of Health-Related Quality of Life**.** Churchill Livingstone 2004; pp 20-84.
5. McGrath C, Bedi R. Population based norming of the UK oral health related quality of life measure (OHQoL-UK). *British Dental Journal 2002;* **193**(9): 521-524.
6. Reisine ST, Fertig J, Weber J, Leder S. Impact of dental conditions on patients' quality of life. *Community Dentistry and Oral Epidemiology 1989*; **17**(7): 10.
7. Cohen K, Jago JD. Toward the formulation of socio-dental indicators. *International Journal of Health Services* 1976; **6**: 681-687.
8. Allen PF, McMillan AS, Locker D. An assessment of the responsiveness of the Oral Health Impact Profile in a clinical trial**.** *Community Dentistry and Oral Epidemiology* 2001; **29**: 175-182.
9. Bowling A. Measuring disease: A review of disease specific quality of life measurement scales Buckingham. Open University Press 1995.
10. Atchison KA, Dolan TA: Development of the Geriatric Oral Health Assessment Index**.** *Journal of Dental Education* 1990; **54**: 680-687.
11. Strauss R, Hunt R: Understanding the value of teeth to older adults: influences on the quality of life. *The Journal of the American Dental Association* 1993; **124**: 105-110.

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