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Oral Health Related Quality Of Life And It's Impact On Elderly People

[1] Charu Mohan Marya
[2] C.S. Baiju
[3] Ruchi Nagpal
[4] Amit Rekhi

[1] Prof. & HOD,
Dept. of Public Health Dentistry
[2] Prof. & HOD,
Dept of Periodontics & Implantology
[3] Sr. Lecturer
[4] Post Graduate Student
Dept. of Public Health Dentistry
Sudha Rustagi College of Dental
Sciences & Research, Faridabad

Address For Correspondence:
Dr. Charu Mohan Marya
Sudha Rustagi College of Dental
Sciences & Research, Kheri More,
Vil. Bhopani, Faridabad, Haryana
Phone: 09811144408
Email: maryacm@yahoo.co.uk

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Abstract
Quality of life is a holistic approach that not only emphasizes on individuals' physical, psychological and spiritual functioning but also their connections with their environments and opportunities for maintaining and enhancing skills. Oral health-related quality of life can be stated as a "self-report specifically pertaining to oral health, capturing both the functional, social and psychological impacts of oral disease. Evaluation of oral health-related quality of life is made by subjective indicators, complementary to those clinical and brings together the dimension of social impact and clinical indicators. It measures the extent to which health status disrupts normal functionality and social roles and produces major changes of behavior.
Aging is a highly variable process, affected by numerous factors including genetic predisposition, environmental factors and diseases. The elderly represent a special category in the population, not only because of the consequences of specific diseases and conditions but also because they often have restricted access to medical care, including dental care. The prevalence of oral health problems increases with age, highlighting the importance of oral health related quality of life (OHRQoL). This is a concept that reflects aspects of human life generally affected by oral health or dental care which affect the daily lives of older adults. OHRQoL is patient oriented and will enhance our understanding of relationship between general and oral health and demonstrate that improving the level of patient's well being goes beyond simply treating dental related problems in the elderly segment of the population

Key Words
Health Related Quality of Life, Oral Health Related Quality of Life, Ageing, Elderly,

Introduction

Health has evolved over the centuries as a concept from an individual concern to a world-wide social goal and encompasses the whole quality of life. The widely accepted definition of health given by the World Health Organization (WHO) rejects the notion that health is merely just the absence of physical disease but places the person's experience of his health in context of physical, psychological and social well-being[1]. According to the policy of the WHO program, oral health is integral and essential to general health; it is a determinant factor for quality of life. Oral and general health is related and proper oral care reduces premature mortality[2].

Quality of life is a holistic approach that not only emphasizes on individuals' physical, psychological, and spiritual functioning but also their connections with their environments; and opportunities for maintaining and enhancing skills3. Oral health-related quality of life is defined as "a multifaceted concept that attempts to simultaneously assess how long and how well people live". This concept portrays health as a part of everyday living, an essential dimension of the quality of our lives, a resource which gives people the ability to manage and even to change their surroundings"[4]. Oral health-related quality of life is also defined as a "self-report specifically pertaining to oral health - capturing both the functional, social and psychological impacts of oral disease[5]. Evaluation of oral health-related quality of life is made by subjective indicators, complementary to those clinical and brings together the dimension of social impact and clinical indicators, measures the extent to which health status disrupts normal functionality and social roles and produces major changes of behavior[6].

The elderly represent a special category in the population, not only because of the consequences of specific disease and conditions but also because they often have restricted access to medical care, including dental care[7]. As a result of living longer and retaining more of their natural teeth, more oral problems arise and lead to restrictions that modify their life styles and social interactions, thus affecting their oral health related quality of life[8].

The relationship between oral health and general health is complex and multifaceted, especially among the elderly. Some unfavorable general health conditions that are more prevalent among this age group can act as predisposing factors for oral health impairment, such as diabetes, which can induce xerostomia and reduction of the saliva flow[9]. Oral conditions that are more prevalent among the elderly, such as tooth loss and periodontal disease, may act as predisposing factors for malnutrition and restrictions on the intake of certain foods. In this sense, it is important to focus on the relation between oral health self-perception among the elderly and their

general health condition.[10]

The prevalence of oral health problems increases with age, highlighting the importance of oral health-related quality of life (OHRQoL). This is a concept that reflects aspects of human life generally affected by oral health or dental care which affect the daily lives of older adults[11]. Perception of oral well-being, or lack thereof, can affect social and physical oral functioning which in turn, can have a substantial influence on individuals' overall QoL and affect their daily activities, including mobility [12], [13], [14].

Oral health is a component of general health that is essential for well-being[15] and it is directly related to socioeconomic conditions and access to information and health services. Exclusive use of clinical indicators to assess oral health conditions is a limitation for dental studies. These fail to take into consideration an important instrument for the planning of health services when they do not recognize the need to evaluate the self-perception of oral health and the impact of oral health on quality of life[16].

Concept Of Health Related Quality Of Life

The concept of health has undergone a shift during recent years. The medical model of health, founded at the beginning of 20th century has greatly expanded by incorporating aspects of psychological health. The previous understanding of health as a state of absence of organic disease or pathological process is now interpreted as a state of complete physical, mental and social well being and not merely absence of disease or infirmity [17], [18].

It is increasingly recognized that when assessing health status and treatment outcomes, impact of Quality of Life (QoL) of disease, its treatment and its consequences should be taken into account. Only clinical indicators are not sufficient to describe the health condition of an individual and it is not necessary that a person with chronic, disabling disorders or poor health will have a poor Quality of Life as compared to a normal person[19],[20]. Personal characteristics and the capacity to adapt, influence the patient's response and perception to a particular disease. This can in turn lead to counterintuitive reports as stated by a German study where people with less than 9 teeth reported to have more effect on Quality of Life than having cancer, hypertension or allergy. Therefore clinical indicators alone are not sufficient to describe health status[21].

WHO has defined QoL as individual's perception of their position in life in context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a wide concept affected by the person's physical health, level of independence, social relations, psychological state, personal beliefs and their relation to the environment[22]. Quality of life is an expression with many meanings and it creates positive associations for most people[23]. However, quality of life and the factors most important for each individual vary depending on age, gender, and cultural situation, among other things[24]. Quality of life is therefore not a directly measurable variable, but a construction of several independent factors based on the perception of the individual[25].

The quality of life of elderly people has become relevant. It is seen that concepts and concerns related to QoL in older ages are different from general population. When taking all other influences as constant, ageing does not influence QoL in a negative manner, rather a long period of good quality of life is possible. Therefore improving and maintaining QoL should be included among goals of clinical management[26].

In an effort to focus on the assessment of health and quality of life issues, the term "health-related quality of life" is now widely used. Regarding the relationship of health and disease to quality of life, there appears to be a relation between these domains which is not clearly defined. Locker suggested that health problems may affect quality of life but such a consequence is not inevitable[27]. The implication of this is that people with chronic disabling disorders often perceive their quality of life as better than healthy individuals, i.e., poor health or presence of disease does not inevitably mean poor quality of life. To further explain this phenomena, Allison et al suggested that quality of life was a "dynamic construct", and thus likely to be subject to change over time[28].

Quality of life (QoL), or individuals' "perceptions of their position in life in the context of culture and value systems in which they live, and in relation to their goals, expectations, standards, and concerns", is now recognized as a valid parameter in patient assessment in nearly every area of physical and mental healthcare, including oral health[22]. Changes in population structure will have several implications on health, economy, security, family life, well-being and Quality of Life of people. All the aspects of "Health status", "Lifestyle", "Life satisfaction", "MentalHealth" and "Well-being" together reflects the multidimensional nature of Quality of Life in an individual[29].

Oral Health Related Quality Of Life

Oral diseases such as dental caries or periodontal diseases are highly prevalent and their consequences are not only physical but are economic, social and psychological[30]. They seriously impair quality of life in a large number of individuals and can affect various aspects of life including oral function, appearance, alimentary function, social development and interpersonal relationships, thus indicating a need for oral rehabilitation in aging society[26].

Measurement of oral health-related quality of life (OHRQoL) is an essential component of oral health surveys and clinical treatment evaluating the outcomes of preventive and therapeutic effect[31]. The importance of assessing both patients' perceptions of health and presence or absence of disease lies in the need to have appropriate data to promote health, disease prevention programs, and for allocation of health resources[32],[33]. Furthermore, as patients' assessment of their health related quality of life is often markedly different to the opinion of health care professionals, patient assessment of health care interventions is warranted[34]. A patient based assessment of health status is, therefore, essential to the measurement of health.

Oral health status contributes significantly to the quality of life of older people and affects them not only physically (as in eating), but also psychologically and socially[35],[36]. In a study conducted in 1979 in England, 30% of people 65 yr of age and older reported difficulty chewing, while 41% took a long time to complete their meal, and

13% felt embarrassment during social contacts[37]. In a national survey of community-dwelling older people in Great Britain[38] 17% of the edentate subjects and 14% of the dentate subjects reported that their mouth affected their pattern of daily living on a regular basis. Those in manual occupations reporting twice as high a prevalence of oral impacts on quality of life than those in non-manual occupations[38]. In addition to this, oral impacts were significantly related to different clinical measures of oral health status among both dentate and edentate older British people[39]. The association of malnutrition risk in the elderly and its association with OHRQoL has also been documented[40].

Since Cohen and Jago (1976)[41] first advocated the development of socio-dental indicators, efforts have been invested in developing instruments to measure OHRQoL[42],[43],[44].

Researchers began to postulate how oral health is related to health-related quality of life (HRQoL) and to understand the inter-relationships between and among typical clinical variables, data from clinical examinations, and person-centered, self-reported health experience[45]. The subjective evaluation of OHRQoL "reflects people's comfort when eating, sleeping and engaging in social interaction; their self esteem; and their satisfaction with respect to their oral health"[46]. It is the result of an interaction between and among oral health conditions, social and contextual factors, and the rest of the body[47],[48].

In a report of United States Surgeon General on oral health OHRQOL was defined as "a multidimensional construct that reflects (among other things) people's comfort when eating, sleeping, and engaging in social interaction; their self-esteem; and their satisfaction with respect to their oral health"[46].

Even though it has recently emerged over the past few decades, oral health-related quality of life (OHRQoL) has important implications for the clinical practice of dentistry and dental research. OHRQoL is a multidimensional construct that includes a subjective evaluation of the individual's oral health, functional well-being, emotional wellbeing, expectations and satisfaction with care, and sense of self. It has wide-reaching applications in survey and clinical research[49]. In fact, it is recognized by the World Health Organization (WHO) as an important segment of the Global Oral Health Program (2003).

Even though OHRQoL is a construct applicable for the entire age range, differences have been found between children and adults since oral health is also strongly age-dependent[51]. And most instruments developed in older adults, may therefore not be generalizable to the entire adult population.

Old Age And Oral Conditions

Aging is a normal, biological and universal phenomenon. United Nations considered 60 years to be dividing line between 'old age' and 'middle and younger age group'[51]. In most of the gerontological literature, people above 60 years of age are considered as 'old' and constituting the 'elderly' segment of the population[2],[52],[53]. Aging is defined as the process of deterioration in functional capacity of an individual in consequence of structural, physiological changes, and ongoing accumulation of the chronic pathological processes. The overall effect of these alterations is an increase in the probability of dying, which is evident from the rise in the age-specific death rates in the older population. This should be regarded as normal inevitable biological phenomenon[54]. Aging is a highly variable process, affected by numerous factors including genetic predisposition, environmental factors and disease. With advancing age, the prevalence of diseases and infections increases at the population level[55], and affects the quality of life and functional ability in older age[56],[57],[58].

Aging population basically means a decline in the proportion of children and young people, and an increase in the proportion of elderly people 60 years and above. It is speculated that, in the next half of a century, there will be a total of about 2 billion elderly people with 80% of them living in the developing countries. This situation has been ascribed to a decrease in fertility rates and increasing longevity despite setbacks in life expectancy in the developing countries[52].

Oral health has been defined as a comfortable and functional dentition which allows individuals to continue in their desired social role[59]. It means being free of chronic oral-facial pain conditions, oral and throat cancers, oral soft tissue lesions, birth defects such as cleft lip and palate, and scores of other diseases and disorders that affect the oral, dental, and craniofacial tissues, collectively known as the craniofacial complex. Apart from oro-pharyngeal cancers and HIV/AIDS related diseases, oral diseases such as dental caries, periodontal disease, tooth loss, oral mucosal lesions and oro-dental trauma, though not life threatening, constitute major public health problems worldwide[2],[60].

Vast improvements in oral conditions of populations has been seen in many countries but despite this, the underprivileged in both developed and underdeveloped areas still show presence of problems[15]. General characteristics of the individual and the environment affect the stomatognathic system, which makes an understanding of these interactions extremely important to the diagnosis of the needs and priorities of elderly patients[61].

Oral health and status are affected by similar factors, and they are the accumulation of a person's life experiences with caries, periodontal disease and iatrogenic disease as well as with dental care[62],[63],[64].

Geriatric dentistry includes, but is not limited to, the diagnosis, treatment and prevention of caries and periodontal disease, as well as oral mucosal diseases, head and neck pain, salivary dysfunction and impaired chewing, tasting and swallowing[64]. In dentistry, a functional definition of an elderly adult is based on his or her ability to travel to seek services. This definition is more appropriate than a chronological one[65].

The ageing population can be broadly categorized into 3 groups[65]:

- Functionally independent older adults
- Frail older adults
- Functionally dependent older adults

Older people are likely to develop several chronic diseases (for example, arthritis, diabetes, cardiovascular disease), which occur at increasing rates with increasing age and can be treated with an ever-expanding variety of medications[66].

These chronic diseases can affect a person's quality of life, especially the ability to eat, speak, taste and swallow; in addition, they can cause significant pain and discomfort. Many systemic drugs prescribed for these chronic diseases can cause adverse effects to the oral mucosa, the most common being hyposalivation. Patients also may experience xerostomia, bleeding disorders of the tissues, lichenoid reactions, tissue overgrowth and/or hypersensitivity reactions, the most common being xerostomia, or dry mouth[67],[68].

In the past elderly people received dental care very infrequently and that to when the problem could no longer be ignored or had turned severe. Dental care was basically seen with provision of dentures for this age group. With time, the rate of edentulism has fallen and care must now include complex restorative procedures as well as esthetic dentistry and implants [69],[70],[71]. The percentage of teeth with decayed or filled root surfaces increases with each decade of adulthood, affecting more than one-half of all remaining teeth by age 75 years[72]. As people live longer and retain more natural teeth, the complexity of their treatment increases[73].

Conclusion

In short, applied science is translational and QoL assessments may be at the hub of evidence based clinical care. Assessments of health perceptions from patients and community dwellers can increase our understanding of health care access, expectations and treatment effectiveness

OHRQoL has a number of substantive applications for the field of dentistry, healthcare and dental research. OHRQoL is patient oriented and will enhance our understanding of relationship between general and oral health and demonstrate that improving the level of patient's well being goes beyond simply treating dental related problems in the elderly segment of the population

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