Locker's conceptual model of oral health: a reflective study

O modelo conceitual de saúde bucal de Locker: um estudo reflexivo

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RESUMO

Objetivo: apresentar criticamente a teoria do modelo conceitual de saúde bucal de Locker. **Método:** trata-se de um estudo descritivo baseado em revisão de literatura de abordagem qualitativa. Utilizou-se artigos entre 1994 e 2021, nas bases de dados Scielo e Lilacs. **Resultados:** o modelo conceitual de saúde bucal de Locker é um modelo aperfeiçoado e modificado da Classificação Internacional de Deficiência, Incapacidades e Desvantagens da Organização Mundial de Saúde. Considera-se que os impacto dos problemas bucais sobre a vida das pessoas seja realizada de forma progressiva, do nível biológico para o comportamental e deste para o social. Tal abrangência de abordagem é importante e adequada, pois considera-se que é perfeitamente possível que uma doença produza impacto em uma ou mais dimensões da vida das pessoas, ou casualmente em todas elas. **Conclusão:** o modelo conceitual de Locker continua sendo utilizado, na atualidade, como base para o desenvolvimento de instrumentos de medida da qualidade de vida relacionados à saúde bucal. Entender a essência deste modelo é fundamental para mensurar corretamente este construto e entender o que está em torno dos domínios de avaliação.

Descritores: Teoria crítica; Saúde bucal; Qualidade de vida.

ABSTRACT

Objective: to critically present the theory of locker's conceptual oral health model. **Method**: this is a descriptive study based on a literature review of a qualitative approach. Articles were used between 1994 and 2021 in the Scielo and Lilacs databases. **Results:** Locker's conceptual oral health model is an improved and modified model of the International Classification of Disabilities, Disabilities and Disadvantages of the World Health Organization. It is considered that the impact of oral problems on people's lives is carried out progressively, from the biological to the behavioral level and from this to the social. Such comprehensiveness of approach is important and appropriate, because it is considered that it is perfectly possible for a disease to have an impact on one or more dimensions of people's lives, or casually in all of them. **Conclusion:** the conceptual model of Locker continues to be used, nowadays, as a basis for the development of instruments to measure quality of life related to oral health. Understanding the essence of this model is fundamental to correctly measure this construct and understand what is around the evaluation domains.

Descritptors: Critical theory; Oral health; Quality of life.

RESUMEN

Objetivo: presentar críticamente la teoría del modelo conceptual de salud bucal de locker. **Método:** estudio descriptivo basado en una revisión bibliográfica de abordaje cualitativo. Los artículos fueron utilizados entre 1994 y 2021 en las bases de datos Scielo y Lilacs. **Resultados:** El modelo conceptual de salud bucal de Locker es un modelo mejorado y modificado de la Clasificación Internacional de Discapacidades, Discapacidades y Desventajas de la Organización Mundial de la Salud. Se considera que el impacto de los problemas bucales en la vida de las personas se lleva a cabo de forma progresiva, desde el nivel biológico hasta el conductual y desde éste hasta el social. Tal amplitud de enfoque es importante y apropiada, porque se considera que es perfectamente posible que una enfermedad tenga un impacto en una o más dimensiones de la vida de las personas, o casualmente en todas ellas. **Conclusión:** el modelo conceptual de Locker continúa siendo utilizado, hoy en día, como base para el desarrollo de instrumentos para medir la calidad de vida relacionada con la salud bucal. Comprender la esencia de este modelo es fundamental para medir correctamente este constructo y comprender qué hay alrededor de los dominios de evaluación.

Descriptores: Teoría crítica; Salud bucal; Calidad de vida.

Introduction

Oral health is part of general health and therefore becomes essential and necessary for the maintenance of quality of life (Qol) of individuals. In order for them to have it to the fullest, all people must have an oral health condition that allows them to chew, talk, smile, not feel pain or discomfort and have relationships freely and without embarrassment.[1]

Thus, the World Health Organization's QoL study group stated that health-related QoL should be understood as the perception of individuals of their insertion 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.[2]

In the field of Dentistry, the literature points out that several instruments were developed with the objective of measuring the impact of oral conditions on the perception of health and quality of life of individuals. Among the instruments developed, the Quality-of-life questionnaire for patients with oral potentially malignant disorders (OPMD QoL) Oral Impacts on Daily Performances (OIDP), Dental Impacts on Daily Living (DIDL), Geriatric Oral Health Assessment Index (GOHAI), Oral Health Impact Profile (OHIP), with its derivations, OHIP-14, OHIP-Edent, oidp (Oral Impact Daily n Performances) and others.[3-5]

In this perspective, locker's conceptual oral health model (1988) was developed and used by several authors in the construction of oral health measurement instruments, especially to assess the impacts of oral health on individuals' QoL. This is an improved and modified model of the International Classification of Disabilities, Disabilities and Disadvantages of the World Health Organization.[2,6]

Published more than three decades ago, this model represented a fundamental change in dentistry, as it had the proposal to break the paradigm strongly associated with the area with emphasis on the disease, emphasizing a patient-centered perspective (individuals).[6]

Based on the importance of the theme in the scientific, social and technological field, especially for the use, understanding and development of instruments for measuring quality of life related to oral health, this article aims to critically present the theory of locker's conceptual oral health model.

Method

This is a descriptive study based on a literature review of a qualitative approach. Data were obtained through the research of chapters of books and articles of Dentistry and Quality of Life, having as inclusion criteria those that contemplated the theme Quality of Life associated with Oral Health. The published period was from 1994 to 2021, including articles indexed in the SCIELO and LILACS databases.

Results and Discussion

Critical and reflective description of locker's oral health conceptual model

Locker's conceptual oral health model is an improved and modified model of the World Health Organization's International Classification of Disabilities, Disabilities and Disadvantages.[6-7]

David Locker, born in Derbyshire, England in 1949, graduated in Health Services and Sociology administration, was a professor in the Department of Community Dentistry at the University of Toronto School of Dentistry when he developed locker's conceptual oral health model. Considering a linear scheme that interconnects and associates the concepts of disease, disability, functional limitation, disability and social disadvantage.[6]

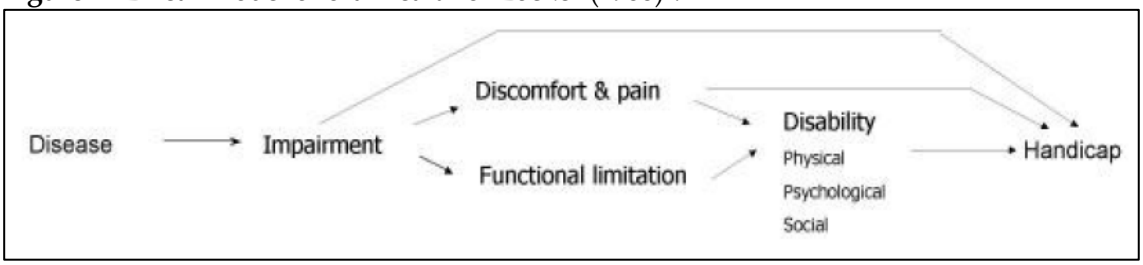
In addition, it can be affirmed that in this conceptual model, the author understood the quality of life related to oral health in the individual's life as the impact (positive and negative) generated by oral health conditions in the individual's life, in its three main domains (physical, social and psychological). It can be added that in this explanatory model oral diseases are linked to the biological, behavioral and psychological consequences of individuals.[6]

The organization of this model allows the analysis of the impact of oral problems on people's lives to be carried out progressively, from the biological to the behavioral level and from the latter to the social. This model assumes that sequential events related to oral diseases can cause discomfort, functional limitations and, consequently, result in dysfunctions and even disabilities.[6]

It is considered, then, that the impact of oral problems on people's lives is carried out progressively, from the biological to the behavioral level and from this to the social. Such comprehensive approach is important and appropriate, as it is considered that it is perfectly possible for a disease to have an impact on one or more dimensions of people's lives, or casually in all of them.[6]

Published more than three decades ago, the Conceptual Model of Locker6 (MCL) represented a fundamental change in dentistry, because it had the proposal to break the paradigm of the area with emphasis on the disease, emphasizing a patient-centered perspective (individuals). Therefore, through the MCL it was possible to obtain a structured scientific model, aimed at the individual, with the objective of understanding oral disease and its clinical and social consequences. This model was developed from the perspective that there are five consequences or consequences arising from oral diseases: disease; functional limitation; pain and discomfort; disability and disability (Figure 1).

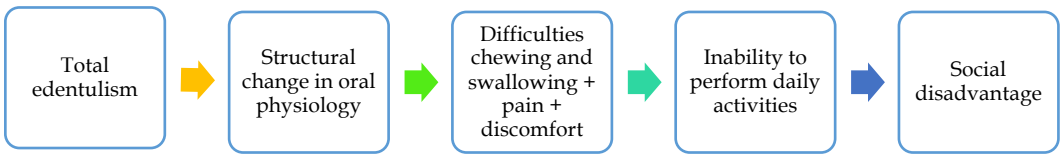
Figure 1- Linear model of oral health of Locker (1988)[6].



Source: Locker, 1988.

It can be illustrated (Figure 2) the logic involved in this model with the following example: disease or oral condition: total edentulism (physiological structural change) leads to functional limitation (with restrictions on bodily functions, such as difficulty chewing and swallowing food) and also pain or discomfort (self-reports of physical and psychic aspects, for example, painful gums due to food friction) which, combined, these signs and symptoms lead to limitation (limitations in the performance of daily activities, such as poor diet) and then to disability (with social implications, such as social isolation)[6,8].

Figure 2- Practical example of locker's conceptual oral health model. 2023.



Although it was created at the end of the 1980s, many authors recently use this conceptual model in the development of their instruments to measure quality of life in oral health, it can be cited, for example, the Quality of Life Questionnaire for individuals with potentially malignant oral disorders[3,5] and the quality of life questionnaire for individuals with chronic submucosal fibrosisa.[9]

Returning to the origins and deepening the concepts: international classification of disabilities, disabilities and disadvantages of the World Health Organization (CIDID)

International Health Classifications that represent consensual models to be internalized by the world Health Systems, aiming at a common language for the description of problems or health decision-making.[10] Thus, the purpose of the WHO International Classifications is to promote the appropriate selection of classifications in various health fields of worldwide reach. Thus facilitating the collection, consolidation, evaluation and interpretation of data; the formation of consistent national databases, and allow the comparison of information on populations over time between regions and countries.[10]

Farias and Buchalla[11] emphasize that it is of fundamental importance for the health area, especially in relation to chronic diseases, that it is known what is going on with patients after diagnosis, over time. For action planning and health decision-making, knowing only the causes of death and the most frequent

diseases, in time that life expectancy increases and technology helps medicine to prolong human life, may not be enough.

CIDID[7] aimed to provide a conceptual structure for information and early prevention, being relevant for the consequences of diseases, injuries or disorders in the long term. It was also very important for the study of health systems, both in terms of evaluation and policy formulation. It is noteworthy that the concepts of this classification aroused philosophical interest and its applications extended to social security activities, conception of population surveys, evaluation of work capacities, demographic aspects and others.

It is important to consider that this classification had a primary application in the description of circumstances of individuals with disabilities in a wide variety of environments, thus, it was developed with the intention of being applied to the care of individuals from diagnosis to treatment, also to evaluate treatment results.[7]

The conceptual model of oral health developed by Locker[6] was based on the guidelines, logic and concept of the International Classification of Disabilities, Disabilities and Disadvantages of the World Health Organization (CIDID) that was published experimentally in 1976, the result of the 29th World Health Assembly in May 19767. The purpose of this manual was to respond to the needs of knowing more about the consequences of diseases.

The following paragraphs refer exclusively to the CIDID text published in 1980.[7]

In this context, this manual represents a conceptual framework, in which the terms now have the following descriptions:

i) *impairments* - for Portuguese **deficiency** - is classified as abnormalities in organs, systems and structures of the body. It is the installed disease that can alter the physiological structure in the individual. Still in the context of health, a deficiency is any psychological, physiological or anatomical loss or abnormality in the structure or function of an organ or system. They are losses or abnormalities that may be temporary or permanent and that includes the existence or occurrence of an anomaly, defect, loss in a limb or organ, tissue or any other structure of the body, including mental function systems. The use of this term does not necessarily indicate that the disease is present or that the individual is considered ill. It is also considered the concept of "latent deficiency" in which the individual has or shelters the etiological agent, however, will only have the deficiency when this agent starts in the reaction by the body so that pathological processes develop.

ii) *disability* - for **disability** Portuguese - is characterized as the consequences of disability (disease) from the point of view of functional performance, that is, on the performance of daily activities.

iii) *handicap* – for the Portuguese **disadvantage** - reflects the adaptation of the individual to the environment resulting from illness and disability. It is the result of the interaction between disability and disability.

Regarding the conceptual theoretical framework, CIDID is based on the logic that there is an etiology for diseases, which in turn generate manifestations that are characterized as difficulties, however the logic adopted does not take

into account the full range of problems that lead people to seek health services. In a practical way, the disease interferes in the ability of individuals to perform their functions, that is, the sick person is unable to sustain his usual social role and therefore will have difficulty maintaining his routine with society.[7]

Conclusion

Locker's conceptual model continues to be used today as a basis for the development of instruments to measure quality of life related to oral health. Understanding the essence of this model is fundamental to correctly measure this construct and understand what is around the evaluation domains.

This model is far from ideal in the assessment of quality of life, however, it has overcome paradigms rooted in Dentistry and allows us to analyze how the impact of the presence or absence of oral health on people's lives is carried out progressively, from the biological to the behavioral level and from the latter to the social.

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