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A Global Oral Health Survey of professional opinion using the International Classification of Functioning, Disability and Health

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ABSTRACT

Objectives: The concept of oral health is frequently reduced to the absence of disease, despite existing conceptual models exploring the wider determinants of oral health and quality of life. The International Classification of Functioning, Disability and Health (ICF) (WHO) is designed to qualify functional, social and environmental aspects of health. This survey aimed to reach a consensual description of adult oral health, derived from the ICF using international professional opinion.

Methods: The Global Oral Health Survey involved a two-round, online survey concerning factors related to oral health including functioning, participation and social environment. Four hundred eighty-six oral health professionals from 74 countries registered online. Professionals were pooled into 18 groups of six WHO world regions and three professional groups. In a randomised stratification process, eight professionals from each pool ($n = 144$) completed the survey. The first round consisted of eight open-ended questions. Open expression replies were analysed for meaningful concepts and linked using established rules to the ICF. In Round 2, items were rated for their relevance to oral health (88% response rate).

Results: Eighty-nine ICF items and 30 other factors were considered relevant by at least 80% of participants. International professionals reached consensus on a holistic description of oral health, which could be qualified and quantified using the ICF.

Conclusions: These results represent the first step towards developing an ICF Core Set in Oral Health, which would provide a practical tool for reporting outcome measures in clinical practice, for research and epidemiology, and for the improvement of interdisciplinary communication regarding oral health.

Clinical significance: Professional consensus reached in this survey is the foundation stone for developing an ICF Core Set in Oral Health, allowing the holistic aspects of oral health to be qualified and quantified. This tool is necessary to widen our approach to clinical decision making, measurement of clinical outcomes, research and epidemiology.

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1. Introduction

The concept of oral health is frequently reduced to the absence of dental disease in both the public and professional conscience,[1] although there is now a steadily increasing amount of literature on perceived oral health.[2] A number of evolving conceptual models have been proposed to describe oral health and its wider social and environmental determinants, but the impact of these conceptual models on the prevailing oral health paradigm appears minimal.[1,3–5] Research into oral health-related quality of life has shed light on the patient perspective, but lack of consensus amongst professionals on the wider aspects of oral health may be an occupational hazard in the world of fee-per-item dental services. However, lack of a common tool and language to qualify and quantify non-disease aspects of oral health also hinders expression of wider concepts. The International Classification of Functioning, Disability and Health (ICF) (World Health Organisation (WHO))[6] is a comprehensive model for describing human experience in terms of body structure, body function, activities and participation. The domains of health condition, environmental factors and personal factors impact upon this experience within the model. The basic premises of the ICF are that it is universal, i.e. that it is applicable to all people irrespective of health condition or cultural context, and that it gives a positive description of human functioning. The model is crystallised in the ICF classification, which provides an exhaustive list of items related to body structure, body function, activities and participation, and environmental factors. The ICF classification is little used in oral health, as it is long and unwieldy, consisting of over 1400 items. In order to increase practical use of the ICF, the WHO has developed ICF Core Sets-reduced lists of ICF items specific to a particular domain and designed for practical use in clinical and epidemiological contexts.[7] ICF Core Sets are defined following strict methodological protocols and have been adopted in over 30 different health domains to date.[7–15] There are four requisite preliminary studies in the development of an ICF Core Set – a qualitative study to elicit the patients' point of view, a systematic literature review, an empirical study using a discipline-specific ICF Checklist and a survey exploring professional opinion.[7] This manuscript gives results of the latter survey, exploring oral health from the point of view of the professional. The results of the four preliminary studies are used to inform opinion during a consensus conference during which the ICF Core Sets are defined, subject to testing in the field.

The aim of this survey is to reach a consensual description of adult oral health, derived from the ICF using international professional opinion.

2. Methodology

A two-round, online Global Oral Health Survey was designed to collect the opinion of an international sample of professionals concerning adult oral health and factors related to oral health (function, participation and environment). The methodology was adapted from that developed by the ICF Research Branch of the WHO Collaborating Centre for the Family of International Classifications (DIMDI, Germany) in partnership with the WHO Classification, Terminology and Standards group (CTS).

2.1. Participants

Professional networking and snowball sampling were used to construct an international pool of 486 professionals from 74 countries. Professionals were required to fulfil entry criteria to ensure professional experience in adult oral health and basic data was gleaned using a secure Internet portal (SurveyMonkey.com®) (Table 1). Respondents were considered for inclusion if they were general dental practitioners, specialist dental practitioners, or other professionals involved in oral health (e.g. medical surgeons or physicians; dental nurses, hygienists or therapists; speech and language pathologists).

2.2. Sampling

All registered professionals were stratified into one of 18 pools, according to the six WHO world regions[16] and three professional groups (general dental practitioners; specialist dental practitioners; other medical and non-medical professionals involved in oral health). From each pool, eight countries were randomly selected from which one professional was randomly chosen providing 144 sampled professionals (8 countries × 18 pools). The countries, and the professionals within those countries, were randomly selected by the electronic software used to undertake the survey (SurveyMonkey®). This sampling method could not be representative but was designed to recruit as wide a range of participants as possible, the aim of data collection being exhaustivity.

Table 1 – Profile of professionals registered for the ICF Global Oral Health Survey (prior to sampling).

Professionals registered		*n* = 486	% of total
WHO World Region	Europe	153	31
	Americas	137	28
	Western Pacific	66	14
	South-East Asia	52	11
	Eastern Mediterranean	41	8
	Africa	37	8
Age (years)	18–29	35	7
	30–39	166	34
	40–49	102	21
	50–59	141	29
	60 and older	42	9
Preferred language	English	341	70
	French	88	18
	Spanish	57	12
Professional category	General dentist	123	25
	Specialist dentist	194	40
	Other oral health professional	169	35
Gender	Male	181	37
	Female	305	63