Feedback: open survey on Cochrane Oral Health Priorities

1. Introduction

The purpose of this report is to outline the fourth project in Cochrane Oral Health's priority setting process. We wanted to gather feedback from consumers, clinicians, researchers and members of the public in an open and transparent consultation process. What are the most important health questions people have about their mouth, teeth and gums? Cochrane Oral Health launched an open online consultation to collect priority questions in January 2019.

2. Methods

The Lime survey tool was used to construct an online feedback form, aimed at anyone with an interest in oral health evidence; whether that is patients, carers, researchers, members of the public or clinicians. The form was open-ended, and designed to collect oral health questions that people felt needed to be answered. A preamble explaining the purpose and goal of the priority setting exercise, and setting out how the data would be used was posted on Cochrane Oral Health's website, with a link to the Lime feedback form. The preamble was checked for language and clarity by a representative from a patient and public involvement group (PPI). The form was voluntary, and anonymous. None of the questions were compulsory and no personal data was collected, apart from country of residence. This data was collected to ensure there was an international representation.

Respondents had up to ten boxes in which to enter any questions they had, and there was no limit as to how much text could be in each box. They were guided towards framing their question in PICO elements, as the page header asked them to think about whether the question was about certain populations, and which disease or condition was of interest. They were also asked to think about whether their question was about treating an existing disease, or preventing a condition from developing. Finally, they were invited to leave any further comments they had about the prioritisation of Cochrane Oral Health review topics, and invited to sign up to receive a periodic bulletin on progress, and also directed towards Cochrane Oral Health's website to read more about the process.

The feedback form was promoted in Cochrane Oral Health's newsletter, and via Twitter and Facebook. Cochrane Oral Health's overseas editors were contacted to request that the consultation be shared with their networks, in order to ensure an international perspective. The link was shared with Cochrane's Child Health Field, so that it could be promoted amongst those with an interest in paediatric dental care. Cochrane's communications team also shared the link and it was extensively promoted during World Oral Health Day (20 March 2019).

3. Results

A total of 168 people responded to the survey, and they had 211 questions that they felt needed to be answered in oral health. Participants came from nineteen countries, although 19 respondents did not disclose their country of origin. One of the stated intentions of this part of the exercise was to ensure international representation, particularly from low or lower middle income countries. Only one of the countries represented in the online survey (India) is classified by the World Bank as a low or lower middle income country (World Bank, 2019). However, India was also the country with the most respondents, almost a quarter (23%) of the questions came from consumers in India. Malaysia had the next highest number of respondents at 16%, followed by the United Kingdom at 13%. There were respondents from South America (Brazil and Peru), South Africa, the Middle East (Jordan and Kuwait), Australasia, Europe and North America. An international representation was achieved with at least 74% of respondents coming from outside the United Kingdom.

The 211 questions were coded for themes and the results will now be examined in more detail.

3.1 Diagnosis of oral diseases

Only four out of the 211 questions were about the diagnosis of oral disease. Three of these were about how to diagnose oral cancer at an early stage. One was about diagnosing periodontal diseases.

3.2 Oral health and its links to other health conditions

21 out of 211 (9.9%) questions were about establishing links between oral health and other conditions. Periodontal disease was a particular concern here, and whether periodontal health could be a factor in pregnancy complications, renal failure, diabetes, heart disease, and autoimmune diseases. General oral health's impact on health generally was a further concern, particularly with regard to children and their wellbeing. Two people asked whether oral hygiene regimens could prevent hospital acquired pneumonia. One person asked about establishing a link between cleft lip and palate and racial discrimination, a further question was whether dental and medical staff collaborating could improve all health outcomes.

3.3 Prevention of oral disease

Half of all the questions from the consultation were about the prevention of oral disease. This was a concern in 106 of the 211 submitted questions. In 64 cases, the questions were about preventing general oral disease, rather than a specific condition. The topic areas with the most questions in this category were about toothbrushing (the duration, frequency and technique), preventing oral disease with behavioural interventions (such as promotion of healthy low-sugar diets, encouraging dental check-ups, and promoting oral hygiene measures) and how often to visit the dentist for a routine check. The efficacy of interdental cleaning for preventing oral disease, whether to use a mouthrinse and the best general methods of health promotion also scored highly in this category. Less mentioned questions were whether community health programmes work, how to combat oral health inequalities by looking at social factors, whether improving the oral microbiome improves oral health, the role of nutrition and nutritional supplements in oral health, what type of toothpaste to buy, the costs of preventing oral disease and how to address the potential failure of oral self-care in elderly populations.

The prevention of caries specifically was raised in 21 of the 211 questions. Most of these questions were about what the best method was generally, with no emphasis on a particular intervention. However, particular populations were of concern: the elderly, pregnant women, and orthodontic patients were all mentioned as needing special consideration in terms of caries prevention. The rest of the questions on caries prevention were distributed between wanting to know the side effects of fluoride, the effectiveness of fluoride in the water supply, how to

improve the uptake of fluoride toothpaste, the efficacy of laser treatment in preventing caries, the benefits of silver diamine fluoride, and how frequently to brush teeth.

Eleven questions were about the prevention of periodontal disease. Interventions covered included the effectiveness of routine scale and polish, the effectiveness of water and air flossers, the role of mouthrinses and the frequency of toothbrushing.

Other conditions in the "prevention of oral disease" category were dental anxiety, denture stomatitis, oral cancer and oral mucositis in cancer patients. Two questions were about the best methods generally for preventing dental anxiety. Two were about preventing denture stomatitis, and the best method for cleaning dentures. Oral cancer questions were about the effectiveness of oral cancer screening, how to reduce tobacco consumption and how to establish the best method of cancer prevention. The effectiveness or otherwise of mouthrinses and lasers were questions on preventing oral mucositis.

3.4 Prognosis and risk factors

Eight questions covered prognosis and risk factors in oral disease. Four people asked about risk factors for caries, in particular the influence of breastfeeding, risk associated with alcohol and two people asked about risk assessment tools in general and how to establish which is the best one. Other questions in this category concerned the progression of dental disease in people with Human Immunodeficiency Virus (HIV), the risk of mouth ulcers in people on prostaglandin inhibitors and the risks of tooth wear from reflux medication in postmenopausal women.

3.5 Treatment of oral disease

72 out of 211 questions (34%) were about treating oral diseases and disorders. Ten were about treating malocclusion: whether orthodontics is effective overall in treating malocclusions, the best type of retainer to use, whether to remove wisdom teeth to prevent orthodontic relapse, at what stage of development to get braces, the influence of malocclusion on quality of life and the effectiveness of braces for adults. Seven questions were about treatment of oral disease generally: how to improve access to dental treatment, how to combat overtreatment, and about the use of mouthrinses prior to dental treatment to decrease bacterial load. Six questions were about the treatment of caries, including the safety of mercury fillings, indications for tooth extraction, and finding out at which stage invasive treatment is needed.

Six questions related to oral surgical procedures: how to stop excessive bleeding, whether to use cortecosteroids to speed up recovery, how to speed up wound closure, whether to prophylactically remove wisdom teeth, and the effectiveness of bone grafting in maxillofacial surgery. Six questions were about treating periodontal disease. These included the use of laser treatment as an adjunct, the efficacy of bone grafting for osseous defects and establishing the most effective treatment generally. Five questions were about treating temporomandibular joint disorders. These were around the effectiveness of alternative therapies or non-pharmacological therapies, muscle relaxants, physical therapy and techniques for pain management. Four questions were concerned about the best treatment for mouth ulcers, particularly if caused by adverse events from pharmacological treatments for other conditions.

Other questions about treatment were about diastema, dry mouth, impacted teeth, missing teeth, the side effects of oral cancer treatment, treating oral mucositis, the effectiveness of surgical procedures in oral lichen planus, treating oral submucous fibrosis, the effectiveness of

teethers in toddlers, the best toothpaste for hypersensitive teeth, the effectiveness of tooth-whitening products, treating tooth wear in post-menopausal women and recent trends in treating vesicullobullous diseases.

4. Conclusion

The questions that people had about oral health were varied, but it seems that how to prevent oral diseases from developing in the first place is the most pressing concern, with the most frequently asked questions being around toothbrushing, promotion of oral hygiene and the frequency of dental check-ups. Treatment questions also formed a large proportion of the questions asked, common themes were treating malocclusion, caries and periodontal disease, and techniques for improving wound healing during oral surgical treatment.

All of the identified questions will be mapped against Cochrane Oral Health's existing portfolio to find out which of the questions are new and which are covered by existing reviews. This data will be combined with data from the other priority setting projects that Cochrane Oral Health have undertaken (see Cochrane Oral Health's website for information: https://oralhealth.cochrane.org/about-us/priority-setting/cochrane-oral-healths-priority-setting-exercise-ongoing). This will give the team an overview of the priority topics for systematic reviews in oral health.

5. References

World Bank (2019). World Bank country and lending groups. Available at: https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups, (Accessed 13 November 2019).