

Dental Caries L-OVE is a faster and less expensive tool to evaluate the existing evidence compared to Cochrane Systematic Reviews.

Background

Systematic reviews (SRs) are the most effective method to consolidate vast amounts of research on a specific topic. However, carrying out a SR takes much time and requires large amounts of resources. In recent years, there has been an increase in the number of SRs published in dentistry, many of which have not been updated. Reusing the information that other SRs have found previously can be useful to minimize time and resources.

Epistemonikos software generates a table displaying the cluster of SRs that share at least one included study, and all of the studies included in those reviews (matrices of evidence). L-OVE (Living Overview of Evidence) is a platform that brings together all the research evidence (SRs and primary studies) relevant to a specific topic, saving the time of conducting searches and screening. Dental Caries L-OVE has all the existing evidence in Epistemonikos about interventions for dental caries prevention, and it is continuously updated.

Objectives

To compare the number of primary studies (PS) included in dental caries prevention Cochrane SRs with all previous SRs and PS included in Caries L-OVE.

Methods

All dental caries prevention Cochrane SRs carried out by the Oral Health Group from its inception to March, 2019 were included. Only SRs of interventions that include randomised or quasi-randomised controlled trials were considered. The number of PS included in each of them was registered. By using the tool to create matrices of evidence, we determined which of these PS had already been included in other previous SRs of the same topic. Subsequently, using the L-OVE platform, possible studies that were not included by the Cochrane SRs and met its inclusion criteria were evaluated.

Results

A total of 22 Cochrane SRs and 406 Non-Cochrane SRs about caries prevention were included in the Dental Caries L-OVE. One Cochrane SR did not include any PS and other two included observational studies that were excluded from the analysis. A total of 218 PS (Mean by SR: 13) were included in 19 dental caries prevention Cochrane SRs; 191 of them (Mean by SR: 11) were already included in previous SRs. The 84.7% of the PS included in Cochrane SRs were already included in previously published non-Cochrane SRs. In addition, Cochrane SRs did not find 29 PS (Mean by SR: 2) that were included in the Dental Caries L-OVE.

Conclusions

A high percentage of PS relevant to SRs were already included in previous reviews. It seems to be more efficient to perform a search and screening of articles previously included in SRs than to conduct new SRs from scratch. L-OVE platform allows access to all relevant studies on a topic, avoiding losing relevant articles.

Number of Cochrane SR	N° of PS included by Cochrane SR (media)	N° of PS non found by Cochrane SR (media)	Proportion of PS found by previous non Cochrane SR
18	13	2	84%

L-OVE

L-OVE is the first platform that maps and organizes all of the best evidence relevant for making health decisions. A network of experts supported by artificial intelligence algorithms captures and validates information as soon as it is produced, to make it available and always updated.

Epistemonikos

Epistemonikos Database is the largest of systematic reviews. We bring evidence closer to people, making it easier to find and use. We introduce the technology to collaborate.

Title

Dental caries “Living Overview of the Evidence”: A novel and efficient method to assess all the research evidence.

Authors

Ortuño D¹, Verdugo-Paiva F², Vargas JP¹, Lai W¹, Prado S¹, Mellado B¹, Bravo-Soto GA³, Bravo-Jeria R², Ortiz-Muñoz L², Morel-Marambio M², Rada G³

¹ Escuela de Odontología, Pontificia Universidad Católica, Chile
² Centro Evidencia UC, Chile
³ Epistemonikos Foundation, Chile

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Centro UC Evidencia

Cochrane Chile

PONTIFICIA UNIVERSIDAD CATOLICA DE CHILE

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