Reviewer's report

Title: Dental sealant knowledge, opinion, values and practice of Spanish dentists

Version: 2 Date: 23 October 2012

Reviewer: Constantine Oulis

Reviewer's report:

General Comments: It is a very important study but the results based on the methodology used are conflicting and biased, although they are in line with the results of other studies in the literature. Another major problem of the study is the fact that besides the extensive analysis on knowledge, value, opinion, and practice of Dentists we still don’t know how many of them use sealants after all and what is the correlation of the above parameters to the final outcome on using sealants or not.

Major Compulsory Revisions

The study has many problems (listed in the report and marked in the text) but the major problem is the methodology: 1) by selecting questions that in several cases are tricky and/or difficult for Dentists to know the correct answer 2) by grouping the questions in separate parts and assessing the total score of them as a mean with the other parameters instead of every question. and 3) by scoring the answers in such a way that some of them as they are phrased make the respondent to answer as “strongly disagree” although the correct answer should have been at the opposite way. Based on the above the total scores and the whole statistical analysis are biased.

Minor Essential Revisions

Background:

This is a Very short section with insufficient evidence to support the rationale of the study and the methodology used. Where this KOVP system comes from and how it is used in such a study without being validated before? There must be a more detailed review of the literature and some explanations must be given on the rational for selecting and grouping this type of questions in such a way.

Methods

Literature Search: I don’t see any added value on describing in so much detail the method of searching the literature and including two tables in the Method text (which I think must be removed as absolutely unnecessary). Especially when the selected papers are not so relevant to the information needed for the aims of this study.

In particular, to what extend the information gathered from systematic reviews relevant to caries prevention, can give you any information in regard to sealant
use by Dentists?
On the other hand, the method of asking Dentists which questions might be more relevant to be asked in order to be asked it is considered very valuable. However, how it was decided which ones will be included and categorized in every section?

I propose the “Literature Search” section with the two tables to be removed and give some information on how you searched the literature and what criteria you used to select the most relevant papers for review, at the beginning of the “Survey Generation” section.

Survey method:
Q : A convenience sample of meeting participants and solicitation from participant email lists who participated in the annual course on Community and Paediatric Dentistry, 400 Dentists were selected....

Q: Is this sample really representative of the General population of Dentists or of Dentists mostly interested in Community and Paediatric Dentistry?

Q: Is this a sample including only Dentists using sealants or not? What percentage of Dentists use sealants based on their knowledge background?

System “KOVP”: This is a new system (grouping the questions) and used in such a study, without any prior validation, in terms of its internal consistency, inter-item correlation coefficients and item-total correlation coefficients, in order to confirm that the questionnaire can distinguish between individuals in favour or against the use of sealants because of good or bad knowledge, value, opinion or practice of Dentists. The problem is that by grouping the selected questions included within each part and assessing the total score with the other groups and the demographic parameters all the answers should have followed a specific trend and the questions should have the anticipated correct answer as strongly agree. Meaning that the closer to the highest total score the better use of sealants might be based on the better knowledge, value, opinion or practice of Dentists. In particular in the “Knowledge “ part, we find questions (#1,2,3,4,5,10,11,12) for which the correct positive answer (strongly agree) can give the maximum score in Likert scale and at the same time we find questions(# 6,7,8,9) for which the correct answer strongly disagree giving lower number in the scale. The same problem exists with some of the questions in the other parts as well. As a result the total score is reduced and therefore is biased.

Results: Was it examined whether some of them are in the different direction (negative answers)

Discussion: The discussion in three paragraphs to explain and discuss the findings of the study in relation to other studies in the literature, is too little devoted and several issues, with the most important being the methodology used, remain unanswered.

Level of interest: An article of importance in its field
Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

'I declare that I have no competing interests'