Reviewer's report

Title: School-based strategies for oral health education of adolescents- a cluster randomized controlled trial.

Version: 2 Date: 22 October 2012

Reviewer: Jolanta Aleksejuniene

Reviewer's report:

Minor essential revisions

The present work adds an important knowledge about school-based dental health education.

However, I still have a few concerns. Please follow my comments and revise your manuscript, accordingly.

Specific comments

Abstract

Direct quote: “The peer-led strategy exhibited the potential of producing positive peer group norms, thus creating a social environment conducive to health-enhancing behavior”. This conclusive statement is not based on findings, thus this assumption should not appear as a conclusive remark either in an abstract or in the body of the paper.

Background

Direct quote: “In South East Asian countries a significant proportion of adolescents are having poor oral hygiene and betel-nut chewing habit both of which have serious public health consequences [1-5]. The former may predispose adolescents to gingivitis and periodontitis …. It predisposes to dental caries too. Thus, the addition of “caries” is needed.

Methods

Direct quote: Three hundred and twelve schools did not meet the eligibility criteria leaving behind 65 schools. It is unclear what eligibility criteria were used, thus additional information needs to be provided. In addition, authors should have a paragraph in their discussion if this selection might have contributed to selection bias and subsequently might influence the external validity of their study.

For the process evaluation authors used, the ten-point check list, no details about this are provided in the manuscript. Similarly, no specific details are provided about the questionnaire items or about clinical measurements (gingival bleeding, bleeding on probing, etc.) In this case, referral to other papers is insufficient.

Direct quote: “Most of the questions were based on the established scientific facts in OHE”. This statement needs to be supported by references.
Results

Both figures should have titles.

Although researchers did a total of four evaluations, only baseline data and final evaluations are compared. The results of interim evaluations are as important and will inform readers what one can expect from similar interventions at different stages of its implementation.

Re: the loss to follow-up analyses. Direct quote: “No statistically significant differences were found between the two groups of subjects with regard to gender, type of school, oral health knowledge, attitudes, behaviour, plaque without bleeding on probing, plaque with bleeding on probing and calculus”. Authors should add the term “baseline” prior to oral health knowledge, which will imply that more likely there was no systematic information bias due to the loss of follow-up as there were no baseline differences in clinical parameters between subjects who completed and withdraw from the present trail.

Discussion

Direct quote: A MEDLINE search of the dental literature failed to identify any study that compared all the OHE strategies investigated in the present study. However the search revealed only one study [18] that compared the traditional dentist-led with peer-led and self-teaching strategies of OHE implemented in three different secondary schools. The presentation of the Medline search is inadequate as it is unclear how researchers examined the presence of relevant evidence. At the least, the summary of search strategy (use of terms, keywords and or MESH terms) should be presented. Secondly, other studies comparing two or more strategies for health education still brings important evidence despite that not multiple strategies to facilitate education as in the present study were employed. In further reading it becomes clear that there were more than just one study. Authors should be more accurate in their statements.

Direct quote: “One significant finding of the present study had been that the peer-led strategy was statistically as effective as the dentist-led strategy and more effective than the teacher-led and self-learning strategies of OHE strategies in improving preventive oral health behavior of adolescents about gingivitis and oral cancer”. Revision of this statement is clearly needed as “statistically as effective” does not make sense. Further reasoning seems to use inadequate terminology too. Authors should be clear and not confuse two different concepts “statistical significance” and “clinical significance/relevance”.

“… children reported in the last national oral health survey in Pakistan1” the same referencing style should be used throughout the paper.

Direct quote: “Also no previous estimates of cognitive or behavioral measures included in the present study were available for the study population” from this statement the question arises:

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

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

no conflict of interest