

**A COMPARATIVE STUDY ON COST-EFFECTIVENESS  
BETWEEN RESIN AND GLASS-IONOMER USED AS PIT AND  
FISSURE SEALANT IN MOBILE DENTAL SERVICE FOR  
SCHOOL CHILDREN AT MUNICIPALITY SCHOOL, BURIRAM  
PROVINCE, THAILAND**

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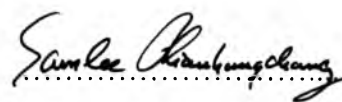
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## ABSTRACT

This thesis deals with the issue of dental caries in primary school children in Thailand. Dental caries is a major public health problem and is one of the most highly prevalent oral diseases in Thailand. Many strategies can be used to prevent and control dental caries such as fluoride supplement, pit and fissure sealing, dietary intake controlling and plaque control which are included in the dental health promotion and preventive program for school children in Thailand.

The essay describes dental caries and its importance and explores the feasibility and effectiveness of various strategies to prevent and control dental caries. The research proposal aims to compare the cost-effectiveness of the pit and fissure sealing procedure with resin and glass-ionomer in a mobile dental care setting for a sample of primary school children. The research proposal's objectives are to define the cost-effectiveness in using resin and glass-ionomer as pit and fissure sealant in mobile dental service for school children.

The hypothesis is the cost-effectiveness of glass-ionomer used as pit and fissure sealant in mobile dental service for school children is equal to that of resin. The methods applied are Quasi-experimental study, the expected outcome is the cost-effectiveness of resin and glass-ionomer used as pit and fissure sealant in mobile dental service for school children based on research findings recommendations will be made to facilitate decision making.

The main purpose of the data exercise was to gain experience in applying cost analysis, in-depth interview, Focus Group Discussion and observation techniques including analysis. The objectives for data exercise were (a) To compare unit cost between resin and glass-ionomer used as pit and fissure sealant in mobile dental service for school children (b) To explore the perception of children's parents on the school dental health promotion and preventive program in Municipality school I. and (c) to assess the actual implementation against the dental health promotion and preventive program plan.

To achieve the objectives following methods were combined (a) A cost-analysis, (b) In-depth interview, (c) Focus group discussion and (d) Observation technique.

In conclusion there is only minor cost difference per tooth between resin and glass-ionomer in the pit and fissure sealing procedure to prevent and control dental caries. There is a difference between the actual and then planned dental health promotion and preventive program in Municipality Primary School I. Differences were found in : (a) Tooth brushing after lunch activity, (b) Dental health education, (c) Useful food preparation

Lesson learned are

1. Time counting by using chronometer and handling by the operator is not appropriate.

2. It's more useful if this data exercise categorized the children into 3 groups classified by the severity of the dental caries, Mild, Moderate and Severe.
3. Development of guidelines should be critical thought carefully.
4. Triangulation method is very useful to cross check and confirm the findings.
5. It's very difficult to invite eight children's parents to participate in Focus Group Discussion.
6. It might be better if the interviewer for in-depth interview is not a dentist because when the teachers knew the interviewer is a dentist, they might try to please the interviewer with a good image.

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