International Poster Journal IPJ of Dentistry and Oral Medicine

Int Poster J Dent Oral Med 2003, Vol 5 No 03, Poster 182

Caries preventive interventions in Filipino children Results after three years

Language: English

Authors:
Dr. Bella Monse-Schneider
Committee of German Doctors, Frankfurt am Main;
Prof. Dr. Roswitha Heinrich-Weltzien
Dept. of Preventive Dentistry, University of Jena;
Aubrey Sheiham
Dept. of Epidemiology and Public Health, University College, London.

Date/Event/Venue:
13. -14.09.2002
7th Annual Conference of the European Association of Public Dental Health
Athen, Greece

Introduction

The National Monitoring Evaluation Dental Survey (NMEDS) of the Philippines conducted in 1998 pointed out that oral health is poor. 97% of the people suffer from dental caries. Although there is an adequate supply of dentists in the country less than 10% of the dentists are employed in the public health system. More than 77% of the Filipinos have never visited a dentist. The current health care system is not able to cope with this public health problem. In order to look for alternative approaches which are based on the principles of primary health care a pilot project was implemented to gather experience with school based oral health care programmes.

Objectives

Evaluation of the effectiveness of a WHO-supervised school based preventive programme for Filipino children.

Material and Methods

Baseline Study

- In 1998 19 primary schools in deprived communities of rural areas in Northern Mindanao were selected to take part in the programme.
- By using WHO criteria (1997) one dentist examined 1574 children with a mean age of 7.1 years. The percentage of caries free children was 8.8. Caries prevalence was 1.2 DMFT (± 1.4) and 7.2 dmft (± 5.1). Fillings were not recorded in both dentitions. The mt value was 0.2 (± 0.7).

School based preventive programme

Non professional preventive measures

- Courses to train parents and teachers in basics of oral health promotion and preventive measures (2 parents and 2 teachers per school)
- Daily supervised tooth brushing with fluoridated toothpaste without mouthrinsing
- Supply of healthy fruit in the school canteen
- Application of fluoride varnish every 4 month carried out by trained parents

Fig. A

Fig. B

Fig. C

Fig. D

Fig. E

Professional preventive and invasive measures

- Each school is visited by a dental team (1 dentist, 2 health workers) every 4 month
- Treatment is carried out in the schools
- Manual Restorative Treatment (MRT) for permanent teeth: excavation by means of hand instruments and using encapsulated amalgam as filling material which is mixed in a manually driven titruator to meet mercury hygiene requirements
- Oral urgent treatment for all pupils, teachers and parents
- Extraction of decayed deciduous and not restorable permanent teeth

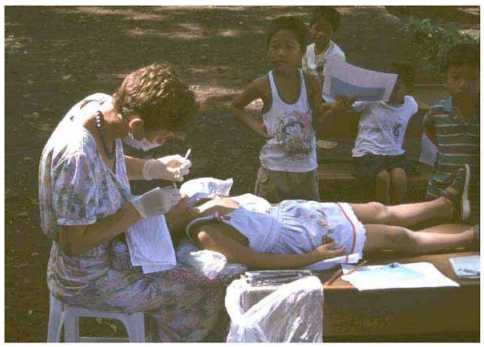

Fig. F

Fig. G

Fig. H

Evaluation study after 3 years

- 1162 children with a mean age of 10.2 years were re-examined
- Caries assessment by 4 calibrated examiners using WHO criteria (1997)

Results

- The percentage of caries free children was 16.2.
- Caries prevalence of 1.6 DMFT (± 1.8) was distributed to 0.5 DT, 0.2 MT and 0.9 FT component
- A caries increment of 0.4 DMFT was scored

Fig. I

Fig. J

Fig. K

Fig. L

Conclusions

- The low increment (0.4 DMFT) and the distribution of the DMFT components in high caries risk Filipino children reflect the effectiveness of a comprehensive dental care approach.
- Extractions of carious deciduous teeth and MRT-restorations in permanent teeth might be an important impact for reducing the microbial infection in the oral cavity.
- Invasive measures seem to be a prerequisite for the caries preventive effect of daily toothbrushing with fluoridated toothpaste in children with high caries experience, particularly in the mixed dentition.

This Poster was submitted by Jan Kühnisch.

Correspondence address:
Bella Monse-Schneider
Committee of German Doctors
Elsheimer Straße 9
60322 Frankfurt am Main

Poster Faksimile:

Caries preventive interventions in Filipino children
Results after three years

P18

B MONSE-SCHNEIDER*[1], R HEINRICH-WELTZIEN[2], A SHEIHAM[3]

[1]Committee of German Doctors, Frankfurt am Main, [2]Dept. of Preventive Dentistry, University of Jena,
[3]Dept. of Epidemiology and Public Health, University College, London

INTRODUCTION

The National Monitoring Evaluation Dental Survey (NMEDS) of the Philippines conducted in 1998 pointed out that oral health is poor. 97% of the people suffer from dental caries. Although there is an adequate supply of dentists in the country less than 10% of the dentists are employed in the public health system. More than 77% of the Filipinos have never visited a dentist. The current health care system is not able to cope with this public health problem.
In order to look for alternative approaches which are based on the principles of primary health care a pilot project was implemented to gather experience with school based oral health care programmes.

AIM

Evaluation of the effectiveness of a WHO-supervised school based preventive programme for Filipino children

MATERIALS AND METHODS

Baseline Study

- In 1998 19 primary schools in deprived communities of rural areas in Northern Mindanao were selected to take part in the programme.
- By using WHO criteria (1997) one dentist examined 1574 children with a mean age of 7.1 years. The percentage of caries free children was 8.8. Caries prevalence was 1.2 DMFT (± 1.4) and 7.2 dmft (± 5.1). Fillings were not recorded in both dentitions. The mt value was 0.2 (± 0.7).

School based preventive programme

Non professional preventive measures

- Courses to train parents and teachers in basics of oral health promotion and preventive measures (2 parents and 2 teachers per school)
- Daily supervised tooth brushing with fluoridated toothpaste without mouthrinsing
- Supply of healthy fruit in the school canteen
- Application of fluoride varnish every 4 month carried out by trained parents





Professional preventive and invasive measures

- Each school is visited by a dental team (1 dentist, 2 health workers) every 4 month
- Treatment is carried out in the schools
- Manual Restorative Treatment (MRT) for permanent teeth: excavation by means of hand instruments and using encapsulated amalgam as filling material which is mixed in a manually driven titruator to meet mercury hygiene requirements
- Oral urgent treatment for all pupils, teachers and parents
- Extraction of decayed deciduous and not restorable permanent teeth



Evaluation study after 3 years

- 1162 children with a mean age of 10.2 years were re-examined
- Caries assessment by 4 calibrated examiners using WHO criteria (1997)

RESULTS

- The percentage of caries free children was 16.2.
- Caries prevalence of 1.6 DMFT (± 1.8) was distributed to 0.5 DT, 0.2 MT and 0.9 FT component
- A caries increment of 0.4 DMFT was scored



CONCLUSION

- The low increment (0.4 DMFT) and the distribution of the DMFT components in high caries risk Filipino children reflect the effectiveness of a comprehensive dental care approach.
- Extractions of carious deciduous teeth and MRT-restorations in permanent teeth might be an important impact for reducing the microbial infection in the oral cavity.
- Invasive measures seem to be a prerequisite for the caries preventive effect of daily toothbrushing with fluoridated toothpaste in children with high caries experience, particularly in the mixed dentition.