



Relationship Between School Dental Health Education Program Through Video and Interactive Calendar Against Changes in Tooth Brushing Behavior in Elementary School-aged Children at SDN ArcamanikEndah and SDN Mekarjaya in Bandung City and Their Families

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Abstract

Background :Media education in improving dental and oral health in children such as multimedia, especially animated cartoons that have been explored extensively can be used as teaching aids. SDN Aracamaik Endah and SDN Mekarjaya in Bandung City, as far as monitoring researchers, students in these two schools have never received dental health promotion interventions through video media.

Purpose :The purpose of this study was to determine the effect of school dental health education programs through interactive videos and calendars on changes in tooth brushing behavior in elementary school age children at SDN ArcamanikEndah and SDN Mekarjaya and their families.

Methods:The type of research conducted was quasi-experimental with a pre-post two group experimental design. The sample was taken by purposive sampling, as many as 30 people.

Result :The Statistical Test uses Mann Whitney Test Analysis at 95% confidence level. The results showed that dental health education programs through interactive videos and calendars had a statistical effect on changes in tooth brushing behavior in elementary school-aged children and their families in Bandung's SDN ArcamanikEndah ($p < 0.001$).

Introduction

The 2013 Riskesdas data showed that children in the 10-14 age group had 25.2% dental and oral health problems. Dental caries and periodontal disease are the most common dental and oral problems in children. One of the causes of these two diseases is behavioral factors. The formation of individual brushing behavior that is correct is based on individual knowledge gained, among others, through education. Media education in improving dental and oral health in children such as multimedia, especially animated cartoons that have been explored widely can be used as teaching aids (Saputri, 2013). Studies report that teaching using animation techniques will improve student academic achievement. According to a study conducted by Sinor (2011) it can be concluded that animated cartoons are more effective media in conveying messages of oral health education compared to conventional

methods in students at the Hulu Terengganu District School. Andriany's research, et al. (2016) concluded that the use of cartoon media can increase knowledge of dental and oral health. Aracamaik SDN Endah and SDN Mekarjaya are elementary schools located in the eastern region of Bandung City, as far as monitoring researchers, students in these two schools have never received dental health promotion interventions through video media. Aim of study to determine the effect of the school's dental health education program through interactive videos and calendars on changes in tooth brushing behavior in elementary school-age children at SDN ArcamanikEndah and SDN Mekarjaya in Bandung City and their families.

Methods

The type of research conducted was quasi-experimental with a pre-post two group experimental design. In the treatment group with intervention in the form of dental and oral health

education for elementary school children and their families through interactive films and calendars, the effectiveness of brushing behavior was measured. Students in grades 3,4 and 5 Complex SDN Mekarjaya and their families. The sample was taken by purposive sampling, as many as 30 people.

Result

Differences in dental and oral health knowledge between before and after the intervention through interactive videos and calendars in students in grades 4, 5 and 6 at SDN Arcamanik Endah in Bandung

Variable	Treatment group		p-Value
	Pre	Post	
Knowledge			<0,001
Average	66.67	94.67	
Standard Deviation	8.44	9.37	
Median	70.00	100.00	
Minimum	50	70	
Maximum	80	100	

The difference in how to brush teeth between before and after the intervention through interactive videos and calendars on students in grades 4, 5 and 6 SD ArcamanikEndah Bandung City Complex

Variable	Treatment group		p-Value
	Pre	Post	
Tooth Brushing Method			<0,001
Average	66.67	94.67	
Standard Deviation	8.44	9.37	
Median	70.00	100.00	
Minimum	50	70	
Maximum	80	100	

The role of students in giving influence and role models for their families to brush their teeth twice a day Class 4, 5 and 6 students of SD Arcamanik Endah City Bandung complex and control groups with calcical education at Mekarjaya Elementary School, Bandung City.

Differences in dental and oral hygiene status between before and after the intervention through interactive videos and calendars in 4th, 5th and 6th grade students of SD Arcamanik Endah in Bandung

Variable	Treatment group		p-Value
	Pre	Post	
Oral Hygiene			<0,001
Average	74.81	92.37	
Standard Deviation	5.94	4.82	

Median	73.60	93.75	
Minimum	66.21	79.16	
Maximum	92.70	98.95	

Mann Whitney Test analysis on 95% confidence level showed that statistically there was an influence of intervention through interactive videos and calendars on brushing behavior of sister / sister teeth in students of 4th, 5th and 6th grade of SD Arcamanik Endah Bandung City significantly with $p < 0.001$ (p -value ≤ 0.05).

Conclusion

1. The average knowledge about how to brush teeth for students at SDN Arcamanik Endah before an educational intervention with animated videos and active calendars was carried out at 66.67 and after the intervention was 94.67.
2. Changes in the behavior of how to brush teeth of SDN Arcamanik Endah students in Bandung City before the educational intervention with animated videos and active calendars was 66.67% and increased after being given intervention to 94.67%.
3. The role (strength of relationship) of the students of SDN Arcamanik Endah in giving an example to Father after the intervention was 0.90, to the mother of 0.63 and to the younger sibling / brother was 0.92
4. The oral hygiene status of students at SDN Arcamanik Endah before the educational intervention with animated videos and active calendars was 74.81% and after intervention it increased better to 92.37%.
5. The dental health education program through interactive videos and calendars has a statistical effect on changes in tooth brushing behavior in elementary school-aged children and their families atSDN ArcamanikEndahBandung City ($p < 0.001$).

Competing Interest

The authors of this paper have no competing interest to report.

Acknowledgement

The authors of this paper have no acknowledgement to report.

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