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The Effect of Visual Aid Education for Hygiene Education in School Age Children on Bonaire - A Pilot Study

"*Clean hands save lives* " (CDC).
"*Embedding hand hygiene promotional activities as a national priority are the key for sustainability"* (WHO).

Bonaire SJSM students report sent to WHO (excerpt):
"We proposed a Hand-washing study to a nearby elementary school, hesitant at first, but upon further inquiry our reflection of passion towards this subject spread through the school's faculty. We were welcomed to do the study, and the teachers were eager to lend a hand. Diarrheal diseases for example are prominent on the island, and hand hygiene being taught to school children can improve the island's total overall quality of life. My colleagues and I, with the help of our mentor, have administered a study on the island of Bonaire in regards to your mandate on teaching proper hand washing technique in a school age population. We found that none of the school children washed their hands according to W.H.O. specifications, in fact some didn't even use soap, however just after a few short weeks and two follow ups later we had around 17% of our total population washing hands according to W.H.O standards."

and WHO response (excerpt):
“We read the information on your activities with great interest. Although our guidelines on hand hygiene mainly target health care workers, we welcome training activities on hand hygiene in schools to improve the hygiene behavior among school children and pupils.”
Clean Care is Safer Care Team,
WHO Patient Safety
savelives@who.int
http://www.who.int/gpsc/en/

Abhas Mathur and Ahsan Ullah

THE EFFECT OF VISUAL AID EDUCATION FOR HYGIENE EDUCATION IN SCHOOL AGE CHILDREN ON BONAIRE
A PILOT STUDY

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ABSTRACT

It is important to address this issue due to historical accounts of outbreaks and diseases that could have been preventable due to a simple act such as washing ones hands. Thus it is only suitable for this study to be conducted to instill correct and proper technique of hand washing technique in school age children on the island of Bonaire. We asked 50 children, 25 from Grade 2 (age range 7-8 years old) and 25 from Grade 8 (age range 13-14 years old), at a local school to see if proper technique has been taught, and to even see if it has been reflected. Followed up twice with the students to compare their scores with their benchmark scores. Results showed improvements in proper hand washing techniques.

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OBJECTIVES

Poor sanitary conditions and poor hygiene practices, play a major role in the spread of communicable diseases within developing countries.

Prior studies have shown proper hand washing techniques to decrease the incidence of symptoms of diseases.

Antibacterial soap reduces diarrheal symptoms by 44% and respiratory infections by 23%

Teach students about dangers of improper hand hygiene and benefits of proper hand washing

For students to spread knowledge to family and friends about hand washing and the benefits it has

To decrease possible spread of infections

Observational study conducted at Kolegia Reina Beatrix
Elementary School (Nov. 7th, 14th, 22nd)

Student Population:
- 25 Grade 2 (7-8 years old)
- 25 Grade 8 Students(13-14)
- 22 male and 28 female

METHODS AND MATERIALS

Proceeded to show W.H.O. approved hand-washing technique video. We confirmed with students so they had no confusion, staff member reinforced that students displayed proper technique on washing hands.

Followed up a week later and asked students to wash their hands, evaluated them once more. Followed Up a second week later, evaluated a final time.

Initial Observation consisted of watching the children display their hand washing techniques and graded them With our rubric (Figure 1).

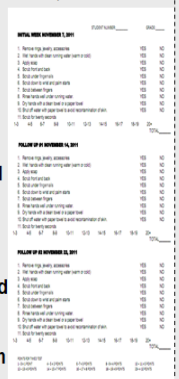
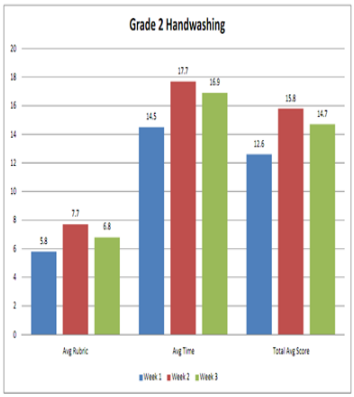


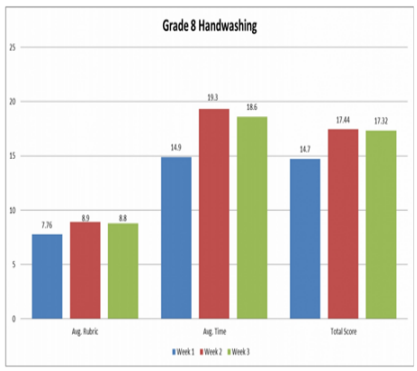
FIGURE 1. GRADING RUBRIC

RESULTS



The results for the 2nd Grade students were calculated and shown in the bar graphs attached. The total average rubric score, time, and total score were calculated by taking the sum of the individual scores and dividing it by total number of participant. The average rubric scores were as follows: week one (5.8), week two (7.68), and week three (6.76). The average time scores were as follows: week one (14.6 sec.), week two (17.7 sec.), and week three (16.9 sec.). Lastly, the average total scores were as follows: week one (12.6), week two (15.9), and week three (14.7).

GRAPH 1. 2ND GRADE RESULTS



There is an increase across the board among the 13-14 year olds in regards to our study. The biggest difference can be seen in Average Time which saw an average of 3.7 second increase in hand scrubbing time from Week 1 to Week 3. Even though there were similar findings for Average Rubric Score in Weeks 2 and 3, there were 4 less people whom got a perfect passing score. While the first follow-up yielded an increase in all 3 categories, the second follow up displayed a decrease in all 3 categories. The largest decrease was seen in Average Time which went down almost a whole second while the total score remained relatively similar in weeks 2 and 3.

GRAPH 2. 8TH GRADE RESULTS

DISCUSSION

Typical findings that were expected before viewing, both 2nd and 8th grade students displayed low overall scores.

2nd graders displayed lower initial scores First week follow up displayed increases in Average Total Score.
(Grade 2- 26%; Grade 8- 18%)

Second week follow up displayed increases in Average Total Score.
(Grade 2- 16%; Grade 8- 17.5%)

8th Grade class showed very little recession from the first follow up as compared to the grade 2 class.

Grade 8 population displayed higher benchmark scores then grade 2 . It could be from more exposure to hygienic practices, better cognitive understanding of illness causes, and conforming to societal norms.

CONCLUSIONS

Educational session made positive impact in teaching children importance of hand washing.

Overall scores INCREASED for BOTH GROUPS, but results decreased after the first follow up.

Keeping this in mind, We (SJSM) suggest regularly reinforcing proper hand washing technique with incoming school children.

We believe that this will be extremely beneficial not only to the school children, however, to the total island of Bonaire.

REFERENCES

1. World Health Organization Better Health for Poor Children. http://www.who.int/child_adolescent_health/documents/a91061/en/index.html.
2. Global Handwashing Day Global Public-Private Partnership for Hand Washing. www.globalhandwashingday.org.