

Practice of Washing of Hand using Liquid Detergent among Pupils in Owerri Municipal: A Tool for Health Promotion and Health Security

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Abstract:- Research determined the practice of washing of hand using liquid detergent among pupils in Owerri Municipal. A tool for health promotion and security. Three questions guided the research. The research adopted cross sectional method which comprises of quantitative and qualitative techniques. Two stage sampling procedures was used to arrive at 90 pupils between 8-13 years as the sample size. The instruments for data collection were questionnaire, observation, checklist and focus group discussion. The Research employed descriptive statistics and percentages for data presentation. The findings showed that many primary school pupils did not practice constant washing of hand using liquid detergent after using the school latrine. However, it was observed that private school pupils washed hand using liquid detergent and water after using the latrine than public school pupils.

The research recommended that a sustained awareness should be carried out by all stakeholders like Health Educators association, parent's teachers' association (P.T.A) and media houses to make sure that the awareness of washing of hand using liquid detergent are given to school pupils.

Keywords:- Health Education, Promotion, National Security, Nigeria.

I. INTRODUCTION

Thorough washing of hand using liquid detergent is a good measure to control the spread of running stomach, infection and other common diseases among pupils. Lack of awareness on practice and approach to personal cleanliness such as washing of hand has adverse effects for a good formation (UNICEF, 2008). Effective hand washing practice is therefore good to a child's survival (UNICEF, 2008; Curtis and Caimcross, 2003).

Acceptable washing of hand using liquid detergent practices are to first to wet hands completely with water then use liquid detergent after which hand are rub firmly together for some time, with emphasis on fingertips, thumbs and dorsal side of hand. (Langeri 1983). The liquid detergent should be well spread and applied all over hands, rinsed using water and allow to dry.

Right time for washing of hand should be after using the lactrine, before and after eating, after playing, after picking up things from the ground (GHWDI, 2008) Thorough washing of hand using liquid detergent is successful butcheap way to stop the spread of diarrheal

infection and cholera that are account for a number of deaths worldwide, washing of hand using liquid detergent practice is not simple to apply, regardless its possibility. Studies shows that lack of liquid detergent and water is detrimental to health and is authenticated by the school sanction and health education(Boit et al, 2006), several developing countries regularly disclosed scarcity of liquid detergent and water (Lopez-Quintero et al 2009).

Children involving in washing of hand using liquid detergent in schools forms part of belonging bringing behaviors that are acceptable. It is pertinent to note that good washing of hand practice can be formed by teaching pupils to be involved in this worthy behaviors. These habits can help pupils in growing into adulthood which encourage Health Education. Bennell,(2007) opined that children contributes half of the population of the Country, It is therefore worthy to note that good washing of hand and hygiene practice is not only necessary but also very important for health security.

II. METHODS AND MATERIALS

The Research adopted cross-sectional techniques which comprises of quantitative and quantitative data collection. The Research uses both private and public primary schools in Owerri Municipal Council.

The pupils used for the research were between the range of 8 and 13 years of either private or a public schools. The schools in Owerri Municipal were grouped into private and public schools using information obtained from the Imo State Ministry of Education. The research randomly selected three private and public schools. This was done by writing names of each school on separate pieces of paper and then picking three private schools and three public schools making total of six primary schools in Owerri Municipal in turn without replacement and a number of 15 pupils were selected randomly from the list of school making a total of ninety pupils from the six primary schools (private & public) in Owerri Municipal. The children were from primary 4 to 6.

A structured questionnaire designed by the researchers were used to collect data on washing of hand using liquid detergent and water among pupils. Information gotten from the Owerri Ministry of Health were recorded. permission was sought which was written to the school stating clearing the purpose of research, after explaining the nature of the survey to the pupils, interviews was used to gather information that guided the research.

III. DATA ANALYSIS

Descriptive statistics, mean, binary logistic regression analysis and percentages were used for the data. The dependent variables for the study was practice of washing of hand using liquid detergent. The dependent variables was subdivided into washing of hand before and after eating and washing of hand after using the lactrine. While the independent variables are gender, class level and age

IV. RESEARCH QUESTIONS

The goal is to investigate practice of washing of hand using liquid detergent and water among pupils. Specifically, these study aimed at;

- determine the distribution of washing of hand equipments in primary schools.
- ascertain distribution of washing of hand practice with soap and water among selected primary schools
- To find out the practices of washing of hand using liquid detergent among selected primary pupils.

V. RESULTS OF ANALYSIS

Ninety (90) pupils that made up of 55 (60%) boys and 45 (40%) girls, were involved in the research. More than 70% of informant were 10 years or below. The actual age was 8 years and mean age was 9.5 ± 1.95 years.

Washing of hand facilities	Private (n=4)	Public (n = 4)	Home (n = 12)
Accessibility of sinks	0	1	2
Accessibility of receptors	3	4	12
Accessibility containers	2	3	0
Availability of liquid detergent in all equipments	0	0	0
Presence of liquid detergent in some equipments	1	2	4

Table 2: Dispensation of washing of hand equipments in primary schools

These shows the accessibility of equipments in six schools studied, only one school had hand washing sink with clean r water and hand washing equipments at the same time. Three of the private schools used receptacles. Though some schools had sinks that have damaged beyond repair with leaking pipes, which did not provide neat water, but encouraged collective washing of hand using detergent and water among the pupils. The equipments was kept away from pupils thereby resulting from them not getting access to washing of their hand with liquid detergent and water. As such pupils used the down and dirty receptors for collective washing of hand . It was discovered that private school had one tank with a tap that has liquid detergent in it, but had no neat water provided to the pupils to use to rinse their hands. After washing of hand with liquid detergent and water no neat towel was provided. In other words, accessibility to the equipments were kept away to prevent vandalism by intruders and focus group discussion with the pupils shows that in schools where the equipments were available, children could not get access to it. The pupils

More than 50% in primary 5 answered more positive to the question.

Features	n(%)
Girls	55(60)
Boys	45(40)
Age (Years)	
8 – 10	70(60.5)
11 – 13	30(30.5)

Table 1: Feature of pupils(N = 90)

VI. PRACTICE OF WASHING OF HAND USING LIQUID DETERGENT AND WATER AMONG PUPILS

In order for pupils to interpret what they have acquired in the classroom relating to washing of hand using liquid detergent and water into practice, some washing of hand equipments needs to be provided to the pupils. The research therefore determine practice of washing of hand using liquid detergent and water among pupils.

disclosed that they need consent from the teachers before using liquid detergent and water to wash hand. It is so because the liquid detergent is kept in a cupboard and not near the washing of hand equipments which stopped the pupils from using liquid detergent in washing of hand. The pupils started that they were too fast to play and still use the hand to eat without washing them first after playing. The pupils made the statements as follows;

“Sometimes you do toilet and they have closed the pipes and you forget to wash”.

“They say that we are spoiling the buckets, the one that we use for washing our hand, so nowadays they don’t give it to us again”.

A girls blames the behavior of the boys as the main reason for not getting access to hand washing facilities, which is captured in the following statement:

“Madam, it is the boys. They don’t take their time, then they will let the container pour and hit the ground, because they want to play ball”.

Observed Practices	Private		Public	
	Observed (n)	Washing rightly(%)	Observed (n)	Washing rightly(%)
To Wash hand using liquid detergent and water after using the latrine	17	0	21	0
To wash hand with liquid detergent prior to eating	31	0	43	7
To Wash hand using liquid detergent following eating	25	0	8	5
To Wash hand using liquid detergent following playing	9	0	4	0
To Wash hand using liquid detergent following picking papers from ground	8	0	14	0

Table 3: Dispensation of Washing of hand Practice using liquid detergent as stated by Schools

VII. WASHING OF HAND PRACTICES AMONG CHILDREN PUPILS

Data gotten stated that school pupils had awareness of washing of hand as the factor in reducing infection. The points of pupils on what is to occur if their hands are not properly washed:

“You can get germs and die if you don’t wash your hand after going to toilet”.

“Your hand will smell and if you eat with it your stomach will hurt you and you will be sick”.

Primary school pupils confirmed inability to wash hands prior to and following eating, following using the

latrine, following playing and picking dirt from the ground can cause disease. Most of the school pupils noticed that cleaning hands rightly as maintained by the standard of washing hands, consequently in schools, a total number observed for washing of hand using liquid detergent (7%) prior to eating and 5% of the total number noticed for washing using liquid detergent following eating, did so rightly as seen in **Table 3**. When using focus discussions, the teachers did well though teachers could demonstrate washing of hand rightly using liquid detergent, many pupils could not practice the right washing of hand method, though they stated use of liquid detergent.

Method of Practice	n(%)
Washing of hand before using toilet use (N = 90)	
Yes	90(40.2)
No	28(9.8)
Washing of hand after using the latrine (N = 90)	
Yes	60(88.3)
No	30(11.7)
Washing of hand using liquid detergent prior to eating (N = 90)	
Yes	65(91.5)
No	25(8.5)
Washing of hand using liquid detergent after eating (N = 90)	
Yes	40(81.5)
No	50(18.5)

Table 4: Practice of Washing of hand Behavior among pupils

Washing of hands behavior among primary school pupils were assessed. Following visiting the latrine, prior to eating and following eating and its method, The result stated that pupils practice washing of hand (**Table 4**) making use of liquid detergent was not a regular behavior. 90 children that used school latrine during the research period, 60 (88.3%) stated that they washed their hands. A lot of pupils about 88.3%, did washing of hand with liquid detergent. Alternatively, washing hands with liquid detergent prior to eating indicated same trends. The result indicated that a pupil in the private schools were 63% less likely to wash their hands with liquid detergent following using the toilet unlike pupil from public school. Statistically, there was no significant association between washing of hand using liquid detergent following using the latrine by sex, age and class. Washing of hand with soap prior to eating showed statistically significant difference between private and public school (OR = 49; CI = 0.26, 0.94; p = 0.03). Private schools pupils are less likely to wash their hands using liquid

detergent following eating compared to those from the public school (OR = 0.23; CI = 0.11, 0.49; p = 0.001).

VIII. DISCUSSION FROM THE FINDINGS

This present study is in line with studies in developing countries which stated that inadequate liquid detergent is a barrier to hand washing in schools, this is as a result of the fact that schools have neither liquid detergent nor appropriate washing of hand equipment. (Bolt et al, 2006). In contrast, liquid detergent studied by Aforza, in Yogyakarta in early 2007 discovered that majority of schools have washing of hand equipment, and a large number were found to supply liquid detergent for thorough washing of hand of pupils (Afroza, 2007).

Majority of school pupils, teachers and school heads disclosed that good water was not easily available (Lopez Quintero et al., 2009). According GHWD 1, (2008) and GHWD 2 (2008), appropriate washing of hand requires use of liquid detergent and a small water from a tap. Many

plastic buckets and “polytans” (hard plastic container purposely designed for water storage) were necessary instruments commonly improvised as hand washing equipment in the schools. However, for good access to hand washing equipment, the SHEP program regulation under WFP/UNESCO standards (WFP/UNESCO, 1999) stated that, schools must have one operating hand washing equipment or a drop hole (popularly called KVIP in this part of the world) for every 30 schoolgirls, and every 50 to 70 school boys. This regulation makes no reference to the accessibility of liquid detergent (SHEP, 2008), and also assumes that every latrine equipment at least has one washing of hand equipment. However, on-site observations and focus group discussions with school heads and teachers disclosed that most schools could not follow regulation with a ratio of about one latrine equipment to about one hundred and ten school pupils, with very few washing of hand equipment.

Scott et al, (2007) found that most homes of the pupils have no washing of hand equipment, because of inadequate water supply and liquid detergent. Hand washing was not done rightly, which confirms inadequate washing of hand practices. Centers for disease control and prevention indicates that washing of hand equipment with liquid detergent did not maintain effective washing of hand even when the same water was used by more than one person (Centers for Disease Control, 2007). When interview was carried out by the parents and care givers, it was discovered that the parents were made to understand that washing of hand equipment were available in schools but in reality, none was available. For effective washing of hand, washing equipment should be always accessible with the right materials available to the pupils.

From the result, it was gathered that most of the equipment were locked to prevent vandalization from intruders. There is discrepancy during on site observation in schools which reveals high level in knowledge and actual practice. It was gathered from the research that only 5% washed their hands prior to eating. Most of the informants washed hands following using the latrine. Possibly because equipment for washing of hands were not available, 7% washed their hands following eating. This is in accordance with earlier research conducted in Ghana by research international which reported that only 62% of pupils washed hands.

Following defecation (Dykes, 2008) having knowledge about washing of hand is not same like practice. Many pupils have knowledge of washing of hand with liquid detergent but do not put it into practice due to lack of washing of hands equipment and sanitation practice (Ebong, 1994). The resultant effect of all these observed in this research is that work needs to be done in providing more washing of hand equipment both in schools and at home to promote good washing of hand behaviors among pupils.

The observational data from the research gathered that pupils have more knowledge about washing of hand but washing of hand equipment was a hindrance. From the research, teachers in pupil and private schools need to be

trained because, teachers are the ones to deliver information to primary school pupils in their schools in such a way that the children in turn pass the information to peers, siblings, parent and other out of school pupils in their communities (GHWD 2, 2008).

Washing of hand equipment with water and liquid detergent needs to be provided in each toilet block and supervised by a staff of the school to ensure proper washing of hand by the pupil (WFP/UNESCO, 1999). From the observation, it was gathered that no school had staff supervising pupils to ensure good washing of hand with liquid detergent and water, washing of hand was not done at home thereby preventing the pupils from practicing well in school. The research suggest that pupils had knowledge of washing of hand as a bases in preventing diseases as reported in these quotes:

“you can get germs and die if you don’t wash your hand after going to toilet. Your hand will smell and if you eat with it your stomach will hurt and you will be sick”.

The important moments to note were prior to and following eating, following using the toilet, after playing and immediately after contact with bodily fluids such as coughing, sneezing and blowing of nose (SCOTT et al, 2007). It was gathered from the research that washing of hand behavior are poor in both public and private schools but better and practice are done in private schools.

Pupils in private school were more likely to wash hand with liquid detergent after using the toilet. (37%) prior to eating (49%) and following eating (23%), this shows that washing of hand practice with liquid detergent are dependent on the type of school, whether private or public school.

IX. CONCLUSION

Primary school pupils had adequate knowledge of washing of hand but do not practice proper washing of hand with liquid detergent with water both at home and in school, inadequate accessibility of washing of hand equipment prevented them to practice the hand washing knowledge they had learnt. Washing of hand practice were done wrongly in both private and public schools from this research, but private school was much better of than public school.

Pupils were not trained at home on how to wash hand using liquid detergent and water properly and they carried same behavior to school, teachers need training of washing of hand to teach pupils and supervise them during washing of hand practice for behavioral change, parents also need to have knowledge on washing of hand practice to be able to equip children to practice washing of hand properly at home to help them practice well at school as a tool for health promotion and security.

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