

Teaching methods used by teachers to facilitate hygiene Practices in Early Childhood Education Centers in Londiani Sub-County

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Abstract- Effective hygiene education for children is not just teaching facts about health risks and bad hygiene practices. The purpose of the study was to examine the teaching methods used by teachers to facilitate hygiene Practices in Early Childhood Education centers in Londiani Sub-County. The study used active learning instructional theory. This theory states that effective implementation of the curriculum depends on personal hygiene, good health, primary health care, educational environment and food hygiene. The study adopted the descriptive survey research design to investigate hygiene practices. The study was conducted in Londiani Sub-County, Kericho County. The target population of eighty (80) early childhood educational centres and twenty four (24) was sampled for the study. Random sampling technique was used to select the participants. The target population consisted of 24 head teachers and 48 ECD teachers. Research instruments comprised Questionnaire, Interview and Observation schedules. Data analysis was done with the aid of Statistical Package for Social Sciences. The output was presented by use of frequency tables, bar graphs and pie charts. The findings showed that the centres in the area used several methods to teaching hygiene practices which included role playing, use of puppets and using the older pupils to teach the younger pupils hygiene practices. Most of the ECDE centres reported that they used demonstration to teach hygiene practices. There is need therefore to integrate demonstration with other methods to make it permanent and easier for the children.

Index Terms- Teaching methods, hygiene practices, implementation, Sanitation

I. INTRODUCTION

According to Dania (2010), personal hygiene should be observed throughout life for healthy living. Recognizing hygiene habits for prevention of disease is important for children. In a child-to-child program, child can be an excellent health messenger and health volunteer in their own community. School children can learn easily to cultivate good habits and to mold themselves. Experts' advice that health education should be a part in school curriculum. All health issues irrespective of their sensitivity can be inculcated in educational programs in methodological and scientific way. It has got preventive, promotive and rehabilitative dimensions. The school children can be an excellent mode to transmit information. Here the researcher hope that they can be messengers of proper hygiene practices to other children, to their parents, to the family and finally to reach out the community.

In developing countries, young children spend much of their lives in the care of their brothers or sisters. Experts observed the need for teaching these older children to provide better care for their siblings. The importance of child-to-child programme is thus stressed. The child to child programme was first launched in 1978, by the Institute of Child Health, London. The main focus of child-to-child programme is activity oriented method of teaching, where emphasis is placed on the development of participatory approach of learning and teaching. In child-to-child programme the health educator may be a primary school teacher or a health worker.

II. LITERATURE REVIEW

Life skills-based hygiene education

Effective hygiene education for children is not just teaching facts about health risks and bad hygiene practices. The life skills approach focuses on changing children's hygiene behavior and the hygiene behavior of their families and wider community with a view to improving their quality of life (UNICEF, 2012). It continues to indicate that to ensure that all aspects of appropriate hygiene behaviors are addressed, hygiene education focuses on the development of:

- a. Knowledge and understanding of practical and theoretical information on hygiene. For example, all children know that illnesses like diarrhoea and worm infections result from poor hygiene practices such as not washing hands with soap after visiting a toilet.
- b. Attitudes and personal opinions about hygiene that influence actions and responses to unhygienic situations. For example, children want to be clean and healthy. Older children feel responsible and confident to help others, particularly younger children, practice good hygiene.
- c. Practical skills to carry out specific hygiene behaviors. For example, children wash hands to prevent illness and infection. They avoid contamination with solid waste and help bury or burn it.

UNICEF (2012) in its WASH programmes for school specify that teaching hygiene behavior is most successful when it focuses on a limited number of behaviors with the biggest overall health impact. Changing a single behavior can make an enormous difference. An example of promoting hygiene behavior that stresses a particular action and its effects is the sanitation and hygiene-related The F-diagram shows the path by which germs can spread from person to person.

According to Postma et. al (2004) on life skills based hygiene education, teaching and learning methods in life skills-based education are mainly interactive and participatory. They give learners the opportunity to explore and acquire hygiene promoting knowledge, attitudes and values. They also allow them to practice the skills they need to avoid risky and unhealthy situations and adopt and sustain healthier life styles. In addition, the skills that are developed may be applicable in situations that go beyond practices specifically related to the prevention of hygiene, water and sanitation related diseases. Teaching and learning methods for any particular lesson are determined by the learning objectives and the desired behavioral outcomes. They continue to note that knowledge of academic facts, such as the causes of diseases and the names of bacteria and viruses, is important to fulfill the standards that may be set in the school curriculum. However, these facts are more valuable to students when they are taught in ways that make them relevant to their real lives; when they are accompanied by opportunities to practice skills that allow the students to apply their knowledge; and when they are related to attitudes and values that allow them to make sense of these inputs for their everyday lives. Example of ways of teaching young children is like the exercise below;

Use of group work for participatory methods

Participatory learning and teaching methods such as games, role-plays group discussions, can be carried out with the whole group or with several small groups. Working with a whole class is best when dealing with a method in which students give each other positive feedback. Working in small groups is recommended when every student has to participate more than once or if the method takes longer. Use of small groups gives every student a chance of fully participating and encourages participation and exchange of opinions. At the same time, the group work helps the children to develop cooperation and teamwork skills. At the end of small-group work at least a few minutes should be dedicated to work with the whole class. The spokesperson of each group then responds back to the class about what the group was doing and what conclusions and results they reached (Postma, et. al 2004). To make sure working in small groups is successful, there are a few basic rules that the teacher should establish with the students:

1. All the children in the group work together. Cooperation is important, not competition.
2. Each member of the group helps the other children to feel that they belong to the group.
3. All participants in the group are equal and have the same rights. This can be stressed by sitting in a circle.
4. A group is doing well when all the children are involved in the activities and no child dominates, although different children will "participate" in different ways.
5. To help the groups do well, the teacher can observe the process of each group and provide encouragement/positive reinforcement noting where each of them is doing well. S/he can also ask a student in each group to observe who are most active and least active and report afterwards. This is not to criticize or punish the children or group concerned, but a way to learn and improve!
6. It is important to nurture trust in the group.

For effective child-centred life skills-based hygiene education, the methods that are used must be activity-based and joyful for children. They should not only give the children the opportunity to learn by doing and experiencing but also the chance to learn at their own pace and following their own learning style. Use of these methods will give the children the chance to experience, discover, create and construct their own knowledge. This will give them the opportunity to personalize the information and develop positive attitudes and values as well as to practice the skills they need to avoid risky behaviors and unhealthy situations and adopt and sustain healthy life styles (Postma, et. al 2004).

Class conversation

Snell (2000) asserts that questions from pupils can induce a class conversation. The whole class discusses the subject. Learners can interact. As interaction proceeds, the children can be asked to summarize the discussion, giving the thread of the conversation. During the evaluation, the whole discussion is summarized. Subsequently, the teacher gives remarks about the discussion and the input of the students in order to evaluate the conversation. Through class conversations, all children are able to learn to formulate and defend their opinion and learn to respect the opinions of others. In the context of life skills-based hygiene education, this method can, for example,

be used to discuss whether or not hygiene work is only for women and girls, or whether having or not having latrines is a family's individual responsibility.

Younger children can sit in a circle and be asked to talk about a subject in turn, e.g. about how they wash: if they had a bath or a wash this morning or some other time, if the water was cold or hot, if they used soap/a cloth/brush/sponge/certain leaves or a local 'sponge' such as a dried plant, who washed them, etc. The other children may react as well, but the teacher will make sure that every child gets a turn and that no child is criticized or stigmatized by the other children.

Concentric circles

For this activity the teacher forms two equal groups. One group stands in a circle facing out and another group stands in a circle facing in, so that everyone is facing a partner. The class is asked a question. The students in the inner and outer circle discuss this question in pairs. After a few minutes the outer circle rotates to the left, or that each student is facing someone new. The process is then repeated, with either the same question or a new one. The types of questions that are asked will vary with the age of the group and the purpose of the activity. Younger children can, for example, ask each other, "Do you like to wash your hands, or your face, or take a bath?", "Why?", "Why not?" Older children may discuss, for example, "Is hand washing after using the latrine important?" (Postman et. al 2002). "Why/why not?" or "Are home latrines only affordable for 'rich' people?", "Is it useful to purify water? And can everyone do it?" Through the use of this method the children are stimulated to exchange ideas and experiences in pairs. In plenary the teacher may then ask the children what kind of answers came out, give information and facilitate discussions on how to solve any specific problems that came up.

Problem-solving discussions

The subject of the discussion has to be determined and delineated by the teacher. The class decides which students are in the discussion. The other students will be observers. The learners tell why they want to talk about this subject and determine the goals of the discussion. The discussion starts and the students in the discussion group can express their viewpoint. Observers note the differences/agreements between the viewpoints. Next, the students try to formulate the problem. Then they may brainstorm about possible solutions. Thereafter, arrangements are made for solving the problem, for instance: who will do what and when? Finally all the pupils evaluate the discussion. Questions that can be added during this evaluation are: "Was the discussion useful for all the students?" "Has the goal of the discussion been achieved?", "Did everyone participate?", etc. This method is especially suitable for children in the age group of 10-12 years. It is suitable for all kinds of topics on which children can take action, e.g. how to wash hands well when one has no soap, or how to assist the older and poorer people in the community in getting a latrine (Ahmad & Alibhai, 2001).

Forum discussion

This activity is for the older age group. The subject of the forum discussion is defined and expressed as a question. The class chooses three forum members. As preparation, the forum members get rules and information that they have to study in advance. The teacher introduces the subject and gives an explanation if necessary. Each forum member is given some time to express his/her viewpoint on the subject. After this, the forum members publicly discuss the subject with each other. The 'listeners' can ask for information, place remarks or ask questions to which the forum members have to respond (Burgers, 2000). They continue to note that through a forum discussion the children will be able to develop listening skills, as well as skills to react critically and ask questions. They will also learn that although sometimes opinions differ, this does not mean that one opinion is more right than another (Hart, 1997). Some of the topics that may be useful to discuss are, for example, which safe water sources exist in the community and how to keep them clean, how to prevent local diseases from spreading, how to involve community in hygiene issues.

Continuum or rope-voting

For this activity the teacher draws a line on the ground. One end of the line represents strong agreement with a position or statement and the other end represents strong disagreement. Gradations of opinion are represented by points between. The teacher reads out a statement on a controversial issue. An example is: "We cannot improve hygiene because we are too poor." Or: "Taking care of domestic hygiene is for women and girls only." The teacher then asks the students to take up a position along the line that represents their point of view. The teacher then breaks the line into two segments with an equal number of students. The two extremes of the line are matched with a more moderate position. The children are asked to share their points of view with each other. They may then choose to regroup along the line. By asking children to agree or disagree with a certain statement and make them explain to the other group why they agree or disagree, the children will learn to make decisions as well as to explain themselves in plenary (Burgers, 2000).

Brainstorming

This method stimulates creative thinking. It also generates a number of alternatives. A variation of brainstorming is that each child writes his/her idea on a slate, card or piece of paper. These are put on the ground, read aloud, and then grouped. Alternatively, each child may write his/her idea on the blackboard and then the entries are read out and grouped. Examples for

brainstorming are questions such as: “What can make water dirty?” and “What would be the best place on the school compound to build a latrine?” (UNICEF & IRC, 2001).

Role-play

This method exercises the students' ability to take other perspectives into account and develop problem solving and conflict resolution skills. Children are asked to act a given situation. As they role-play the situation, they communicate with each other and develop new skills such as cooperation, creativity and self-expression. Some children feel shy acting in front of a large group, so ask for volunteers or form groups which will all role-play in a small group. Once the role-play or plays have been done, the teacher may ask questions about the performance. It is very important that the roles played do not extend beyond the subject, as this discourages children from participating in role-play (Ahmad & Alibhai, 2001).

During hygiene classes the children might be asked to act out the activities involved in the preparation of food or a water point committee meeting in which the roles and responsibilities of the different community members are discussed. During the evaluation of each role-play, it is important that the teacher pays attention to how the gender roles and responsibilities are acted out, and whether these could be changed. In some cases it might also be important to pay attention to other aspects of social equity, such as cooperation between different economic, religious and and/or ethnic groups (Winblad & Dudley, 1997).

Pantomime

The children perform a play without talking. They may, for example, be asked to depict a certain subject, such as playing with and taking care of their siblings. After the pantomime, the observers explain what was depicted and this is followed by a discussion with the whole class (Postma et al, 2004). By playing pantomime, the creativity and concentration of children is expanded and they also learn another form of expression. The observers learn to interpret body language and a different form of expression from talking.

Songs

With the children in the age group of 4-7 years, the teacher can teach a song to the children, which they sing once a week. At this age, the children like repetition and the song can serve to reinforce good hygiene behaviors. Combining the song with behaviors give the children the opportunity to move. They may, for example, sing about and imitate all the hygiene practices that they may do before they go to school, when they collect water, when they eat certain types of food, etc. With children of the age group of 9-12, the teacher can provide the class with a subject for the song and ask the children to make the song. The class chooses a melody of a song which is known by them all. The teacher divides the class into four or more groups. Each group makes a couplet on the melody of the chosen song, after which each group sings their couplet to the other groups. Finally all the couplets merge to create a song. Subjects that can be used for making a song might be the risks of playing in an unhygienic community, or a song about the different diseases in the community that are related to water, sanitation and hygiene and how these can be prevented. Older students can also make songs for children in the lower classes (Snell, 2000).

Games

The use of games such as board and card games can have an entertainment value and can arouse children's interest. If properly used, games can promote children's participation and bring a meaningful context to the teaching and learning process. Examples of games that can be adapted for the context of life skills-based hygiene education are 'snakes and ladders', 'memory' and 'happy families' (ten sets of quartets each depicting, for example, four different safe water sources, or four different latrines, four tools needed to clean latrines, four different uses of water, etc.) (Mitchell & Savil-Smith, 2004).

Demonstrations

This method requires the students to practice skills such as preparing food in a hygienic way, washing hands or washing dishes. Demonstrators can be silent, with the comments and explanations coming from the observers. Alternatively, demonstrators themselves may be asked to explain, for example, how they wash the dishes, when and why they wash the dishes and how they dry the dishes. They can also discuss such issues as what to do when there are no materials to wash and dry the dishes, or when such materials are too expensive and how to ensure that the dishes are stored in such a way that they are kept clean. More sensitive issues, such as what to do if fathers or boys do not help with the household chores, may also be discussed via demonstrations (Postma et al, 2002).

III. RESEARCH METHODOLOGY

This study adopted descriptive survey to investigate the implementation of hygiene practices in early childhood education. The researcher chose descriptive survey research design because it enabled the researcher to collect data from wide population using questionnaires. It also allowed the researcher to use a sample from the population and generalized to the entire population with respect to the problem under study.

The study was carried out in Londiani Sub-County, Kericho County, Kenya. The area was found to be ideal for the study because of scarcity of water in the region which is the main commodity in the implementation of hygiene practices (Chumo, 2016).

In Londiani Sub-County, there are 80 ECDE centers both in public and private schools. The target population consisted of 80 head teachers and 160 ECD teachers from Londiani sub-county. These participants were used to generalize the results of the entire Sub-County. The study used simple random sampling to select the sample size for the head teachers and teachers. To ensure equal representation and fairness, the researcher sampled the schools based on private and public categories. Two tins were labeled ‘private’ and ‘public’ schools respectively. She then wrote the names of the schools based on the target population of the school categories. For private, 15 school names were written in small papers and folded then dropped in the labeled tin. After shaking, 30% of the population was picked. This made a sample size of 4 headteachers and 9 ECDE teachers for the private schools. The same procedure was followed to get the sample size for the public schools headteachers and ECDE teachers respectively. This was based on Mugenda & Mugenda (2003) which indicated that a sample size of 10% - 30% of the target population is sufficient to form a study.

The sample size achieved was 4 headteachers and 9 ECDE teachers for private category and 20 headteachers and 39 ECDE teachers for public schools. The researcher used purposive sampling to sample the 24 schools used for observation. The researcher used questionnaires, interview and observation checklist to collect the data. Descriptive statistics was used to summarize quantitative data. Analysis involved sorting the questionnaire, tabulating and coding the responses. Qualitative analysis was used for open ended questions from questionnaires that require respondents to give their own opinions. Qualitative data processed by categorizing and discussing the responses for each item according to the set objectives.

IV. RESULTS

Table 1: Teachers Responses on Methods of Teaching Hygiene Practices

	Respondents	Yes		No		Total	
		F	(%)	F	(%)	F	%
= The	Learners carry out indoor and outdoor activities	47	97	1	3	48	100
	Use of model to demonstrate hand washing	35	74	13	26	48	100
	Dramatize eating habits	37	76	11	24	48	100
	Use puppets in teaching hygiene practices	35	74	13	26	48	100
	Children role play brushing teeth	44	91	4	9	48	100
	Older children teach younger children use of latrines	45	94	3	6	48	100
	Use of songs to teach hygiene practices	45	94	3	6	48	100

teachers responses showed that 47 (97%) of the 48 teachers agreed that learners carried out indoor and outdoor activities, 35 (74%) said they used model to demonstrate handwashing while 37 (76%) teachers said they dramatized eating habits.

Thirty five teachers (74%) used puppets to teach compared to 13 (26%) who disagreed. Use of puppetry in hand washing is an interesting way of learning. As explained by Sturz (2009), puppetry addresses the multiple intelligences by tapping into the different ways in which students learn. On use of role play, 44 (91%) teachers agreed while 4 (9%) teachers said they don’t use. Forty five (94%) of teachers stated that older children were encouraged to teach the younger children of the use of latrines while the same number 45 (94%) said they used songs to teach hygiene practices. The headteachers were asked to give the methods they use in the teaching of hygiene practices in their respective schools. This was a confirmation to the teachers’ responses. The data is summarized in the table below;

Table 2 Head teachers Responses on Methods of Teaching Hygiene Practices

	Frequency F	Percentage %
Observation	2	8.33
Demonstration and explanation	4	16.67
Demonstration only	10	41.67
Clubs and peers	3	12.50
Explanation only	5	20.83
Total	24	100

The findings show that different methods were used in the different schools visited. Two (8.33%) of the headteachers said they used observation while 4 (16.67%) headteachers used both demonstration and explanation.

Children learn through observation and imitation of modeled behavior and listening to instructions from parents or caregivers (Bandura, 2002). Ten (41.67%) used demonstration only 3 (12.5%) use clubs and peers to teacher while 5 (20.83%) used explanation only. The findings imply that teachers in Londiani use demonstration and explanations mainly to teach ECDE children hygiene practices. This is in line with Meltzoff (1999) who noted that imitation is not only an initial toe-hold in self-other mapping, but also provides a means for elaborating it. The same cognitive machinery that enables children to imitate what they see hence is helping them involve various senses to make learning permanent. The findings also concur with Health Promotion Board (HPB) (2012) who noted that children tend to look up to parents and caregivers as their role models and follow by example.

V. CONCLUSION AND RECOMMENDATIONS

The findings showed that the centres in the area used several methods to teaching hygiene practices which included role playing, use of puppets and using the older pupils to teach the younger pupils hygiene practices.

97% of the ECDE centres in Londiani sub-county carried out indoor and outdoor activities which enhanced the teaching of hygiene practices. Most of the schools also used modeling to teach their learners hand washing habits while other centres modeled and 74% used puppets. The use of puppetry in hand washing is an interesting way of learning. The observation made by the researcher showed quite a number of learners did not wash their hands after visiting the toilet. This could be caused by lack of facilities which would otherwise enhance the practice.

The results from the head teachers' questionnaires indicated that 41.47% of the schools used demonstration only to teach hygiene practices while others used observation, demonstration and explanation, clubs and peers or explanations only.

Based on the findings, the method used to teach hygiene practices was demonstration only. Most of the ECDE centres reported that they used demonstration to teach hygiene practices. There is need therefore to integrate demonstration with other methods to make it permanent and easier for the children.

There is need to introduce and integrate other methods of teaching hygiene practices like songs, concentric circles, pantomime, games and role play. This will make the children learn and understand hygiene practices faster and better.

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