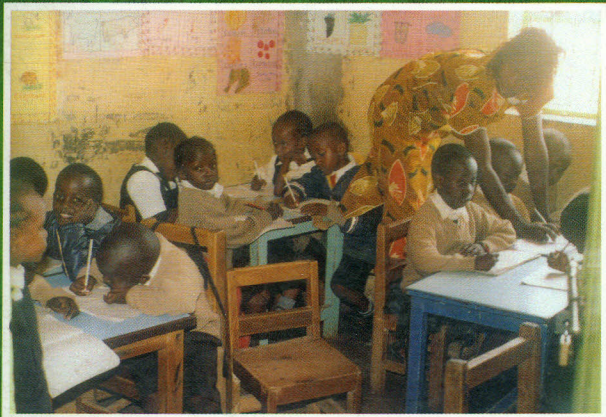


**STATUS OF ENVIRONMENTAL HEALTH EDUCATION
IN THE EASTERN AFRICA REGION:
OPPORTUNITIES, CHALLENGES
AND THE WAY FORWARD**



**Department Environmental health
Kenyatta University**

2004

Abstract

The demand for Health Education in Kenya has been made possible by the vast improvement in the knowledge of methods of prevention and control of diseases as well as the pressing need to find solutions to the aggravated problem of providing medical services. To respond to this need, the concept of Health Education has emerged and schools have been considered excellent places to carry out Health Education because among all organized institutions set up by the society, the school is one through which the largest mass of a given age range pass and also because they present the broadest and deepest channel for putting information at the disposal of a country's citizens. Although health education is a special case, it is often not a recognized school subject and is taught as a component of other subjects. In the highly competitive struggle for timetable space, Health Education is usually seen as being in conflict with the timetabling requirements of other subjects; as such it risks losing integrity and impact. The methods used to teach Health Education in Kenya lack an interactive approach and are basically theoretical, with minimal practical experiences. Health Education promotion has also been hampered by lack of teaching, learning materials and facilities, insufficient integration into the school curriculum, and lack of policies that place a high priority on Health Education. This, therefore, calls for collaboration among health and educational officials, teachers, students, parents and community leaders in fostering health and learning through improvement of school environment, policies and practices.

Introduction

Health is the physical, mental and social wellness of a person in relation to the home, the school and the community (Kelly and Lewis, 1987). Countries all over the world cooperating in the field of health have set a common goal "Health for all by the year 2000" (UNICEF and WHO, 1988). This health is however the responsibility of each individual which begins at home and school. Health education as defined by Steuart (1968) as "that component of health and medical programmes which consist of planned attempt to change individual, group and community behaviour with the objective of helping achieve curative, rehabilitative, disease preventive and health promotive ends".

The demand for health education was made by the vast improvement in the knowledge of methods of prevention and control of diseases as well as the pressing need to find solutions to the aggravated problem of providing medical services. To respond to this need, the concept of primary health care (PHC) emerged, and along with it an urgency to review the state of health education in schools (UNICEF and WHO, 1988).

Health education is part of primary health care. The reason why it is proving to be more economical and more appropriate to the needs of developing countries are that preventive measures rather than curative ones have made the difference in improving people's health; the rising cost of providing hospital facilities for population where numbers and demands are ever on the increase; the development of medical science which has become less relevant to the present and basic needs of population and, many diseases have become resistant to drugs thus providing short-term curative effects (UNICEF and WHO, 1988).

Good health education must motivate the community to take action and therefore the community rather than government officials determine its health. It has been shown that a child starts learning some health habits and ways of avoiding certain undesirable or harmful practices from family members immediately after birth (Salazar, 1995). The learning exercise continues even after a child has gone to school. Schools are therefore ideal settings for health programmes and services, because health and education are closely linked, and because dietary, hygiene and exercise habits that affect health status are formed during the school-age years

Therefore, the more the schools strive to encourage the development of positive health habits among children before they reach adulthood, the easier it becomes for health promoting agencies like the Ministry of Health and other voluntary agencies to achieve their goals. This is because they will be dealing with more enlightened and health conscious adults, parents and citizens (Ademuwagun and Oduntan, 1986).

However, although health education is important in promoting the individuals' health and well being, a number of issues seem to influence its promotion in schools. This paper looks at the following issues as they relate to Health Education in Kenya: health concerns in Kenya; Health Education in Kenya; primary

schools as vehicles for promoting health education in Kenya, children as agents of promoting health education; approaches of promoting health education in schools; challenges in implementation of health education in schools; conclusion and lastly recommendations.

Problem Statement and Objective

Delivering health programmes through the educational system that already has an infrastructure in many countries is one of the most cost-effective health strategies (Maier, 2000). Schools can affect children's health and well being through the environment they provide and life skills on health and health related issues such as hygiene. Water and sanitation facilities are fundamental for hygienic behaviour and children's well-being but, in practice, many schools have extremely limited sanitary conditions. A healthy environment would promote basic education of all school children, by greatly reducing the key hindrances such as low enrolment, absenteeism, poor performance, and early dropouts (UNICEF, 2003). To achieve this goal, many countries, Kenya included, have recognized the need for teaching Health Education in their schools.

The school health strategy relies on children's eagerness to learn, as well as teachers' and families' willingness to be involved. New health and hygiene behaviour learned in school can lead to life-long positive habits. Teachers can function as role models for children and within the community. School children can influence the behaviour of family members and thereby positively influence whole communities.

This paper sets to assess the status of health education dissemination in Kenyan schools. It also sets out to determine the approaches and methods used to disseminate health education information in schools. Finally, the paper seeks to highlight the challenges facing the implementation of health education in Kenya.

Materials and Methods

Research for this paper was entirely based on documentary evidence. Information was largely sourced from the library. Published and unpublished works relevant to the paper were consulted.

Results and Discussion

Health Concerns in Kenya.

Morbidity

Preventable water borne diseases are the main causes of morbidity nationwide (GOK, 1997). Furthermore, the health sector in Kenya is experiencing a resurgence of old and almost contained diseases such as cholera in Nyanza, Coast and North Eastern provinces, 'highland malaria' in Kisii and 'Rift valley' fever in

some parts of Rift valley province (Owino, 1998), which can be prevented. Individuals' actions will continue to largely determine their health status since most of the diseases and illnesses that afflict people are preventable (GOK, 1997).

Other diseases that affect children particularly in Kenya include typhoid, intestinal parasites, T.B and meningitis. Parasitic infections such as hookworms, tapeworms, and bilharzia are major causes of illnesses impeding the growth and development of children. Malaria and respiratory diseases account for almost 50% of all reported diagnosis in government health facilities and intestinal parasites infections and diarrhoea increase this figure to over 60% of all reported cases (UNICEF, 2003).

Water and Environmental Sanitation in School.

Access to safe drinking water and environmental sanitation is universally recognized as a human right, which have special significance to school going children. Further, linkages exist between availability of adequate and safe water, environmental sanitation and human behaviour on one hand and good health on the other (UNICEF, 2003). Clinical records show that the top disease reported in Kenya such as malaria, upper respiratory tract infection, skin diseases and diarrhoea are sanitary related. National coverage of water and sanitation averages 48% and 42%, respectively (UNICEF, 2003). This low coverage predisposes a large percentage of the population especially children to preventable diseases that emanate from unsanitary environments. It also explains why diarrhoea is the leading cause of death among children below five years of ages and accounts for 4% of all out patient cases and over 60% of children admissions to Kenyatta National Hospital, the largest referral hospital in the country (UNICEF, 2003).

Latrine coverage averaged 55 school children per toilet in 1999. However, a survey conducted by the Ministry of Education, Science and technology (MOEST) in 2003 shows that the situation had become considerably worse over the 4 year period to 2003, with an average of 64 school children sharing one toilet (UNICEF, 2003). While a good number of schools have pit latrines in the school premises, a few rural schools and those in Nairobi slums such as Mukuru and Kariobangi have water toilets. These types of toilets need cleaning daily but in most cases this is not the possible because water is either rationed or cut off. The levels of hygiene are therefore very low in some schools thus frustrating efforts of promoting health education. Still some schools in rural districts such as Kwale, Wajir and Mandera have no pit latrines at all in the school

premises. Nearly bushes are used as toilets (UNICEF, 2003).

Lack of, or inadequate toilets in schools affect girls more than boys due to their special hygienic needs especially during the puberty stage. In Arid and Semi Arid Lands (ASAL) for instance where there is hardly any vegetation girls find themselves in very difficult situations when they need to answer the call of nature. Girls are particularly affected during their menstrual periods by lack of water and sanitation facilities. Whereas school enrolment has risen countrywide due to the implementation of the Free Primary Education (FPE) programme, adequate attention has not been given to the improvement of water supply, sanitation facilities and hygienic education in schools. The existing physical facilities (which include classrooms), toilets and other utilities and provisions have been seriously overstretched. Even where some of these facilities are adequate in number, they are in unsatisfactory state and require urgent rehabilitation (UNICEF, 2003).

Health Education in Kenya.

School creates an excellent opportunity to create lifelong change in behaviour. A healthy environment would promote basic education of all school children, by greatly reducing the key hindrances: low enrolment, absenteeism, poor performance and early dropout. As such, the Kenyan government has invested in primary health education in subjects, which include sciences, agriculture, home science and physical education (PE). The health objectives of primary education in Kenya are to enable pupils grow into strong, healthy people and towards maturity and self-fulfillment as useful and well adjusted members of society (Ministry of Education, 1992).

Health education in schools in Kenya seeks to foster sound health, knowledge, attitudes and practices both for the preventive and the sufficient curative values. It also empowers people to improve their health seeking behaviours and practices, change their life-styles and use health services effectively (WHO, 1990). Health education is also important when it is considered that large numbers of children come from families that cannot afford the cost of private medical care. This makes the prevention of disease a major role for schools.

Although Kenya has introduced health education in the school curriculum, traditionally, the school curricula are still weak in addressing health education issues like water, environmental sanitation and hygienic promotion in schools. This can be attributed to lack of facilities and materials and the methods used to

disseminate Health Education in schools, which mainly involve integrating instruction concerning health related topics into more traditional academic subjects (Kinoti, 2003). Other instructional methods used in Kenya include training students to prepare nutritious foods during home science lessons, encouraging students to participate in physical education activities and games and involving students in the general cleaning and maintenance of the school compound and facilities.

Despite the fact that integrating instructions concerning health education related topics into more traditional subjects being the main method of promoting health education in Kenyan schools, changes in knowledge, attitude and practices concerning health have not been adequately achieved. This calls for the need to use interactive approaches and encouraging active roles for students, teachers, health and educational officials, parents and the community at large to foster health and learning through improvement of the school environment, policies and practices (FAO, 2003). Still, while a number of organizations have a stake in health education programmes, including government, UN agencies, development partners, school communities and NGOs, there is still no structured and sustained national health education programme to address these issues.

Health Practices.

During childhood, it is easier to establish indicators of good health habits like those related to basic hygiene, diet and physical activity. For instance exercise habits established during childhood help in maintaining a physically active lifestyle through out adolescence and adulthood. Other essential health facilities pupils need to adapt include boiling drinking water, regular washing of the body, and washing hands with soap and water to remove germs. Most schools however, do not have even a simple hand washing facility. Games and sports help the body to do its work more effectively, create body strength, reduce depression and give relief. It also adds in keeping the body healthy, regulate blood pressure and build resistance hence reducing attacks from allergies and asthma (Young and Durston, 1987). The Health Education curriculum should cater for these areas of health among others, because all the above health problems can be prevented or significantly reduced through effective school health programmes.

Primary Schools as Vehicles for Health Education

Much is known today of the relationship between health and education. Due to this relationship, schools and especially primary schools create an excellent opportunity to create lifelong change in behaviour. The primary school is an ideal place to carry out health

education because among all the organized institutions set up by society, the primary school is the one through which the largest population of school age children pass. They present the broadest and deepest channel for putting information at the disposal of its citizens. It is the institution that gives the highest pay-off and provides the greatest opportunity to influence human behaviour (Tjeldvoli and Holmesland, 1995).

The primary school acts as a focal point to facilitate innovations, education and motivation towards good health, more so because many pupils do not have a chance to continue to secondary school hence the need to tap these children (Gezairy, 1990). Primary school pupils, unlike adults, have boundless energy. Their minds are open to new knowledge; their attitudes have not yet formed and their practices and behaviours have not yet developed (Kinoti, 2003). The rural primary school occupies a special position as a bridging point between the traditional culture of the home and village and the evolving modern world. Primary schools therefore can play an influential part in the development of communities (Carnegie and Hawes, 1990).

Children as Agents of Promoting Health Education

Children are considered the best agents of change because of their vitality, creativity, mental alertness, lack of prejudices, concern about the environment and distance from tradition (McIntyre, 1996). If children learn in a way that relates to their life, it contributes to their good health. Secondly, school children are part of the family and sometimes they may even have more school education than their parents. In this case therefore they can pass on health messages to other children who may not have gone to school, to their parents and peers. Finally, school children are future parents and if they learn and practice good health knowledge and skills, and develop responsible and caring behaviour they will carry these forward to the next generation (Child-To-Child, 1992 in Kinoti, 2003).

Approaches of promoting Health Education in the School Curriculum

Approaches of health education promotion in the school curriculum include: Child-to-child approach (CTC); Integrative approach and Hygiene promotion.

Child-to child approach

Child-to-child approach is an innovative approach to Health Education used worldwide. The approach works directly with children in the process of Health Education promotion. Children acquire knowledge on relevant issues, analyse them, plan and act on these ideas. They acquire and share the information from a

learning place for instance school to home, community then back to school (UNICEF, 2003).

C-T-C approach uses six steps which are: what is the health issue; find out more about the health issue; planning action on the issue; undertaking action to resolve the health issue and evaluating the action taken and doing it better. The impact of this approach is that children improve considerably on basic cleanliness expressed in better latrine use; body hygiene and cleaner compounds. At the community level children become instrumental in disseminating health messages and health practices to younger children, peers, families and communities while at the same time enjoying and profiting from doing so. It also promotes joint action among schools, community and other interested institutions (Abidha, 1993, CTC, 1993).

Integrative Approach

Health education in schools is usually delivered through health instruction in the classroom and the playing field. Then these are translated to health actions around the school and the community. Teachers can introduce activities and examples related to health in their teaching as it helps the children understand better and makes teaching more interesting (Hawes, 1997).

Hygiene Promotion

This approach encourages or facilitates a process whereby people assess, make considered choices, demand, and effect and sustain hygienic information and behaviours. This approach encompasses personal, domestic and environmental hygiene practices and an initiative taken to erect barriers to disease.

In light of the internationally increasing attention to the importance of sanitation, and the known impact of health and sanitation on national and household economies, vigorous hygiene promotion may well be the need of the hour. In addition, since schools provide an optimally interactive environment for life long changes in behaviour, they provide the most effective venue and communication channel for targeting behavioral practices habits/skills and for establishing sustainable hygiene promotion (UNICEF, 2003).

Methods of Disseminating Health Education Kenya

For the approaches discussed above to bear fruit the promotion of health education, different methods have been stipulated in the Kenya Primary Education Curriculum to achieve this end. An integrative approach has been adopted. The methods used include:

- Methods which help the children to evaluate the effect of their actions. These include, t

example, observing and recording, describing, measuring and comparing.

- Methods that promote understanding e.g. surveys in communities, discussions and practical activities.
- Methods which help children communicate messages e.g. campaigns, clubs and open days, pictures and posters, story-telling and role playing, song and dances, demonstration of skills.
- Media e.g. radio, television, newspapers and school magazine can be used for promoting knowledge on health issues among children, health staff and community workers.

Challenges in implementation of Health Education in Schools.

Health Education continues to face many challenges in terms of implementation. First, health education is a special case. It is often not a recognized school subject and therefore don't receive much attention in the highly competitive struggle for timetable space. Secondly, the curriculum is overloaded with academic subjects whose syllabuses require a lot of time to be covered. Thirdly, the 8.4.4 curriculum has continued to be reviewed and one outcome of these reviews has led to making optional and not examinable subjects that were traditionally venues for integrating health education topics in the curriculum. Fourthly, the teaching process is performance oriented and so no time is allocated for the teaching of health education topics, which require more time and are practical oriented. Fifthly, lack of both written teaching and learning materials is another challenge facing the implementing of health education. This is compounded by lack of resources and facilities for regular medical examinations.

Countries that have implemented Health Education and Lessons we can learn from

Different countries have recognized the need for teaching health education at different levels of their educational systems and we can borrow a leaf from their achievements. For example in Bombay, India, health classes are part of the curriculum, while in Mexico, sex education is taught in schools in addition to radio broadcasts for young people combining music with information on sexuality, reproduction, family planning and human relationships (McIntyre, 1996). In Jordan, health-teaching materials are developed, tested and teachers trained to ensure that they provide health information needed.

The curriculum in Peru includes subjects and aspects through which children initiate their education in hygiene and environmental health at the pre-school level while at other levels of learning Health Education is integrated in the Food and Nutrition, environment,

body and health and identity syllabi (Salazar, 1995). In China, the Government and WHO have collaborated to establish Health-Promoting-Schools (HPS) which call for collaboration among health and educational officials, teachers, students, parents and community leaders to foster health and learning through improvement of school environment policies and practices (FAO, 2003). In Africa, Botswana has integrated health subjects in the school curriculum with courses on Family Life Education conducted for teachers. In Ethiopia, other than integrating Health Education in certain subjects, radio broadcasts are made accessible to primary schools to enrich teaching of health content. In Zambia, there is an integrated approach that involves daily health talks during assembly, daily health inspections and a prevention maintenance programme. In Uganda, a School Health Education Programme (SHEP) was set up in 1987 within the Ministry of Education. Health Education was integrated into basic science courses and materials to make lessons more effective and interesting. (McIntyre, 1996).

Conclusion

Health Education is important in the promotion of the individuals' health and well-being. However a number of factors seem to influence the promotion of Health Education in schools. But if these factors are addressed, the health of pupils would be improved through action-oriented health education and this would in turn improve attendance, absenteeism and drop out rate due to ill health. In the long run, the health status of Kenyan children will be improved and this will have a bearing on the productivity of the nation as a whole.

Recommendations

The following recommendations are necessary in promoting the delivery and application of health education in Kenyan schools:

There is need to motivate and update teachers on Health Education issues.

There is need for greater integration of nutrition and health education into the regular curriculum instead of Health Education being seen as being in conflict with the time tabling requirements of other subjects.

The Ministry of Education, in collaboration with other stakeholders should help in the development of written teaching and learning materials. Further, the child-to-child (C-T-C) approach should be used and children involved in the preparation of materials and carrying out demonstrations in school in addition to promoting health education messages through song, play and poetry.

There is also need for collaboration among health and educational officials, teachers, students, parents and community leaders in fostering health and learning

through improvement of school environment, policies and practices.

Curriculum developers should involve all education stakeholders when developing the curriculum.

The current curriculum focuses mainly on environmental health. There is need to revise it so that it addresses other aspects of health such as nutrition and diseases.

The community around the school and parents should help to foster health education by ensuring that what students learn in the classroom are translated to health practices both at home and in the school.

There should also be clear and detailed programmes and work plans set by school management which would help to overcome scepticism on the part of other school staff and teachers.

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