

## **Impact of Health Education in Halting the Spread of Infectious Diseases in Nigerian Schools**

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### **Abstract**

*The future of a nation depends to a large extent on the health of its citizens. Man from time immemorial has recognized diseases as an inevitable phenomenon that affects the life of Nigerian school pupils. This paper has mentioned the classes of infectious diseases, nature of common infectious diseases in schools as well as control of infectious diseases in Nigerian school system. Recommendations offered are directed towards pupils, school administrators, parents and government.*

### **1. Introduction**

Our schools today have the opportunity as well as the obligations to promote the health and well-being of children. The teacher who is alert to changing conditions sensitive to the children interests and needs, and trained in health education, can contribute to both school and community life. Through careful planning, the teacher can make the school and stronger force in securing better health for all. This paper will discuss on the meaning of diseases, infectious diseases and causing agents (pathogens) how infectious diseases are spread, modes or methods of transmission, nature of common infectious diseases in schools and control of infectious diseases in Nigerian school system. Disease is the antithesis of health. The term 'disease' simply means dis-ease or literally the lack of ease or absence of ease. Disease can be regarded as an abnormal condition, disturbance, malfunctioning or any pathologic condition of the body or mind. Disease can manifest in the form of functional or organic disorder, mental ailment, infectious or degenerative impairment of the body. Generally, a disease has no single cause because a number of factors may be involved in the initiation of disease (Achal, 1998).

### **2. Classification of Diseases and Mode of Transmission**

For easy classification, diseases can be divided into four categories.

1. Water-borne diseases,
2. Air borne diseases.
3. Insect-borne diseases.
4. Contact diseases.

#### **2.1 Water Borne Disease**

These are caused by drinking impure water or wading in streams, or ponds. It could also be through the milk supply; possibly impure water was used for its manufacture. Such water borne disease are typhoid fever, guinea worm, flukes, cholera, diarrhea and dysentery (Achal, 1998)

## **2.2 Air Borne Diseases**

In the developed countries with industrial cities, air borne diseases are more common due to the air pollution from dusty smoke. The air we breathe in contains germ which we cannot see with the naked eyes and that is why school children should be encouraged to use handkerchiefs. Such air borne diseases are pneumonia, bronchitis, tuberculosis, influenza, smallpox, measles, chicken pox, whooping cough and mumps. Most of the chest diseases are air-borne. This is one of the main reasons why teachers should educate their pupils to understand the need for breathing through the nostrils rather than through the mouth (Achal, 1998).

## **2.3 Insect -Borne Diseases**

Of all the insects known to man, mosquitoes and house flies are the worst enemies. Every housefly is an enemy of man and is liable to cause diseases such as diarrhea, dysentery and cholera whereas not all mosquitoes cause diseases. It is only the female mosquito which, if it comes in contact with a victim and bites him, can cause the same type of disease in another man.

A housefly will feed on the products in the toilet until its tummy is filled then it may fly to the dining table and find food uncovered, when it will regurgitate onto the food before eating from it. Other insects bearing diseases are lice, ticks, and tse-tse flies. Lice carry typhus fever and is due to overcrowding. The lice are found on dirty clothes and hair and they can easily transfer from one to the other.

The tse-tse flies which are found in the tropics cause sleeping sickness. (Achal, 1998).

## **2.4 Contact Diseases**

Contact diseases are spread by direct contact (touching) between the well person and an infected human being or animal or by direct contact with infected material such as clothing or bedding. In this group are the venereal diseases, which have constituted a major health problem in most communities throughout the world. Also in this group are scabies (itch), which passes from person to person when sufficiently close contact allows the itch mite to set on the body of the new host. Tetanus or Lockjaw, is produced by a bacterium that, although it causes serious diseases or death in humans, normally lives in the intestinal tract of animals without producing diseases. This organism lives also in the soil and its mode of entrance into the body is with dirt that enters a wound (Achal, 1998).

## **3. Common Infectious Diseases in Schools**

The following are few of infectious diseases in schools:

1. Guinea worm infection
2. Food poisoning
3. Tuberculosis
4. Scabies
5. Malaria
6. Typhoid fever

(Adi 1979)

### **3.1 Guinea Worm Infection**

Infection with guinea worm (Dracontiasis) is very common in areas where there is no pipe borne water supply. Most of the water in schools are still taken from either rivers, streams, pools or from wells. Nearly all of it is

dangerous to drink until it is decontaminated. It often contains eggs of the guinea worm or roundworm (Galli, 1978).

### **3.2 Food Poisoning**

This is an illness of the stomach caused by eating food that contain toxins produced by harmful bacteria. Food poisoning is caused by eating contaminated food or drinking water contaminated by toxins produced by growth of bacteria. Such contamination may occur during food handling or preparation.

Most schools generally organize midday meals for the pupil;. Some make it obligatory for the pupils to have the midday meal in school while others allow the pupils the choice. Some schools make arrangements with food vendors to sell food at the school with little or no interference from the staff. Pupils get infected if the process of food handling is not properly done. (Achal, 1998).

### **3.3 Tuberculosis (TB)**

Tuberculosis is a very serious chronic disease that is caused by a bacteria attack in the lungs and other parts of the body. Tuberculosis can be spread by contact with secretion of the mouth nose, coughing, sneezing, spitting or by handling articles contaminated by an infected person such as towels or drinking glass. Tuberculosis affects many school pupils causing death every year (Njoku, 1978).

### **3.4 Scabies**

This is a disease of the skin that is caused by tiny mite known as sarcoptes scabiei. It bores into the skin of an infected person, especially between the fingers along the creases of the wrist and the buttocks. The female mite lays eggs in the superficial tunnels that it makes. The disease is transferred by direct close contact with an infected person or indirectly through contact with contaminated articles such as clothing, bed-clothes and towels used by infected persons. Some of the factors that favour the spread of the disease are overcrowding and poor personal hygiene. It can there fore spread easily among pupils in classroom and hostels especially where overcrowding and filth exists. (Adi, 1979)

### **3.5 Malaria**

This is a common infection among school pupils. Malaria as due to infection by the parasites belonging to the genus plasmodium. It is transmitted through the bite of the female anopheles mosquito. The disease is usually characterized by fever, shivering of sudden onset, headache and gene4ral body weakness. This disease is more noticed in boarding schools where mosquito nets meant for their beds and window nets are not available. As a result of this majority of the pupils get infected with malaria. (Achal. 1998)

### **3.6 Typhoid Fever**

Typhoid fever is a disease caused by a bacteria which is spread in the urine or faeces of patients and carriers. This is another disease that is also common among school pupils. Certain factors such as eating contaminated food and drink, improper food handling and preparation by kitchen staff, not washing fruits before eating, could easily infect the pupils, which could eventually cause typhoid fever. (Kayne, 1987)

## **4. Control of Infectious Diseases in Schools.**

### **4.1 Through School Sanitation**

Infectious disease can be controlled to a large extent through effective sanitation to reduce exposure to infectious agents. This should include provision of good water supply, sanitary facilities for disposal of sewage and refuse, the promotion of good hygiene, the control of noise, pests and other vectors of diseases. (Laoye, 1966)

### **4.2 Morning Inspection**

Morning inspection should be positive means of promoting healthy living among school pupils. The inspection is not only a check to see if the children are clean but also to find out if any of the children need medical attention. Thus any necessary action may be taken in good time. Morning inspection could take place either before the assembly or in the classroom after registration. Morning inspection should not be restricted to the pupils alone. It could also cover their morning pieces of work. These might be scrubbing the toilet, sweeping and dusting the classrooms, cleaning the window panes, etc. (Laoye, 1966).

### **4.3 Medical Examination**

Both teachers and pupils need adequate medical attention and this means medical examination from time to time. It is necessary for school pupils to be examined medically, but due to the limited number of doctors available in the country, this is not always possible. One alternative is for nurses to be employed to assist with the establishment of schools clinics and routine medical examinations.

During frequent routine inspections, the school nurse will weigh the pupils, find their height inspect the nose, mouth, ears, teeth, hair, feet and toes as well as the eyes. These school nurses can also give advice to Records of such routine inspections are kept for future reference (Laoye, 1966).

### **4.4 Teaching of Health Education**

Health education should be included in all school curriculum. The importance of health education, be it to each individual or to any nation is inestimable. It embraces every aspects of man's life: at home, in the school, on the streets and in the community.

Health education enables each pupil to know the value of cleanliness both personal and environmental. It ensures the maintenance of natural immunity and prevents infectious disease spread. (Toluhi, 1976),

### **4.5 Immunization**

This depends on the type of disease, during epidemics of disease like small pox, tuberculosis and cholera, all the school children should be immunized with specific vaccines. (Laoye, 1966).

### **4.6 Isolation of Infected Pupils**

Any pupils with a suspected infectious diseases in the school must be isolated until proven otherwise by the doctor (Laoye, 1966)

### **4.7 Notification of Health Authorities**

This is important for many reason,

- a) Health personnel will treat the infected school child. pupils or they can meet any parents who have been invited to discuss matters pertaining their children's health.
  - b) Health personnel will trace, examine and treat, those other children who had been in close contact with the infected child.
  - c) Health personnel will institute other measures designed to curtail the infection such as immunization, ensuring good personal hygiene, and promoting good environmental sanitation within the school.
  - d) Health personnel will fumigate the school compound if necessary.
- (Nwegbu, 1977).

## **Conclusion**

Both personal and communal cleanliness go a long way to prevent the spread of infectious diseases. If the school administrators, the teachers and the pupils obey the rules of health and keep their classroom, school surroundings and hostels clean, as well as ones own body and clothes, takes nutritious food and has adequate exercise, they would acquire a degree of natural immunity to most infectious diseases.

## **Recommendations**

1. Health education should be included the school's curriculum.
2. Government should as a matter of urgency recruit qualified health personnel to schools.
3. Health facilities such as drugs. Insecticides should be made available to schools.
4. There should be periodic reports of pupils' health conditions to parents.
5. The school should organize health talks, symposia, exhibitions, screening and health films.
6. Pupils should be encouraged to form desirable health habits and attitudes.
7. Parents should provide their children with good feeding, adequate medical attention and good dressing. They can also cooperate with the school and carry out such health advice.
8. Appropriate ministries and departments such as ministries of health and education can organize seminars, workshops and symposia for the training of teachers to be more competent in carrying out health appraisals for the identification of common infectious diseases.

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