

# HEALTH EDUCATION: AN IMPERATIVE FOR ROUTINE MEDICAL EXAMINATION

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## **Abstract**

Health is a state of complete physical, mental and social well-being. Health education is an integral component of health promotion, health protection, disease prevention and treatment. This paper focuses on the role of health education on routine medical examination. Health education is important in ensuring that the community is aware of the importance and type of medical examination that will be beneficial to them. Routine medical examination requires some coping health education skill that is capable of making sure older and younger adults are properly guided and counseled to ensure their potentialities to improve themselves and the society. The paper recommends that raising public awareness of the issues that affect health and how the public can influence these issues needs to be the centerpiece of any health education strategy.

**Keywords:** *Health, Health Education, Routine medical examination*

## **Introduction**

Sudden death has become a global health challenge with a negative impact on the healthcare system and economy. Globally, cardiac causes are the leading causes of sudden death, accounting for over 7 million deaths annually. Nigeria as a country is not spared as the incidence of sudden death has increased over the past ten years, coinciding with the rising prevalence of its risk factors such as hypertension, diabetes mellitus, obesity and smoking as well as their complications. While by 2020, the life expectancy in the developing world is expected to pass the 70 years barrier, causing the world's life expectancy to continue to climb. This shall be made possible with focus on Routine Medical Examinations. Routine Medical Examination (RME) is a form of preventive medicine involving thorough history, physical examination and

screening of asymptomatic persons by physicians on a regular basis as part of a routine health care process. Routine medical examination is considered effective in preventing illness and promoting health and reducing morbidity and mortality. Moreover, at periodic medical examination, certain non-communicable diseases such as hypertension, breast cancer, cervical cancer, prostate cancer and diabetes mellitus can be detected. It has been recognized for a long time the need for medical systems and this study is a step in development and implementation of support for lecturers to change health behaviour.

According to the World Health Organization (WHO) (2010), the average life expectancy at birth in Nigeria rose from 46 years in 1990 to 53 years in 2011 with a paradigm shift from curative

medicine to preventive medical practice. Akande and Salaudeen (2004) stated that regular screening reduces the risk of invasive cancers and mortality. However, the uptake of RME as preventive screening services has been shown to be poor in many developing countries like Nigeria and sub optimal in countries like the USA and Britain despite its importance and potential benefits. Routine medical checkups are advised to be done every five years (for adults over 18) until age 40 and every one to three years thereafter. For those that have family history of any of the disease, you physician would advise to carry the test out with shorter intervals. According to Mehrotra, Lal, Prakash, Daga and Kishore (2008), surveys have found out that two-thirds of patients believe that it is important for adults to go for routine medical examination regularly after stressful periods of working activities. According to Mfalamagoha (2011), periodic health examination is also routine practice in several other institutions through the knowledge, attitude and practice of routine medical examination. It is noteworthy that most diseases are preventable and can be managed if detected on time to avoid premature death. This paper therefore focuses on x-raying the role of health education on routine medical examination among university lecturers.

### **Concept of Health Education**

Health can simply be defined as a state of wellness or well-being. 'Education' is a process of teaching, training and learning in either formal or informal setting in order to gain knowledge and acquire skills. According to Webster's New Explorer

Medical Dictionary, (2006) Health education is a science involving teaching and learning in issues about how to maintain wellness of individuals. There is considerable evidence that health literacy can be effective in improving the management of diseases and can affect disease outcomes.

### **Goals of Health Education**

The goals of health education include:

- i. Health education improves the health status of individuals, families, communities, states, and the nation.
- ii. Health education enhances the quality of life for all people.
- iii. Health education reduces premature deaths.

By focusing on prevention, health education reduces the costs (both financial and human) that individuals, employers, families, insurance companies, medical facilities, communities, the state and the nation would spend on medical treatment (Cottrel and Mckenzie (2009). Clarke (2002) believes that one of the goals of health education is to produce health literacy. This occurs by fostering: -

1. The capacity of individuals to obtain, interpret and understand health information and services (impart knowledge).
2. Competence to use such information and services in ways which enhance/maintain health of self and family members (developing/decision-making skills).

### **Methods in Health Education**

Teaching methods in health education refers to ways through which health messages are used to help solve problems related to health behaviours. Teaching materials or aids are used to help and support the communication process in order to bring about desired health changes in the audience. There is a wide variety of teaching methods that are used health educators in health education work. These methods are adapted to different situations, so that health education messages can be communicated most effectively. In the Health Education, Health Communication Resources (2013), these teaching methods are presented as discussed below:

**Health Talks:** The best way of communicating health messages in certain situations are by using health talks. Talking is often the most natural way of communicating with people to share health knowledge and facts. In health education, there will always be many opportunities to talk with people.

**Group size is important:** The number of people to engage in a health talk depends on the group size. However, talks are most effective if conducted with small gatherings (56 people), because the larger the group the less chance that each person has to participate. If the group is too big it may be difficult to get the health message across. Talking to a person who has come for help is much like giving advice, but advice is not the same as health education. Make a talk educational rather than just a chat, it will be beneficial if it is combined with other methods, especially visual aids, such as posters or audiovisual material.

Also a talk can be tied into the local setting by the use of proverbs and local stories that carry a positive health message.

**Lecture Method:** A lecture is usually a spoken, simple, quick and traditional way of presenting a subject matter, but there are strengths and limitations to this approach. The strengths include the efficient introduction of factual material in a direct and logical manner. However, this method is generally ineffective where the audience is passive and learning is difficult to gauge. Experts are not always good teachers at communication in a lecture may be one-way with no feedback from the audience.

**Lecture with Discussion:** There may be an opportunity to give a lecture and include a follow-up discussion, perhaps in a local formal setting or during a public meeting. Care should be taken to ensure that the lectures and talks are well prepared so as to keep the attention of the audience. However there are also strengths and limitations to this approach. It is always useful to involve the audience after lecture in asking questions, seeking clarification and challenging and reflecting 'on the subject matter, it's important though to make sure discussion does happen and points of clarification.

**Group Discussion:** Group discussion involves the free flow of communication between a facilitator and two or more participants. Often a discussion of this type is used after a slide show or following a more formal presentation. This type of teaching method is characterized by

participants having an equal chance to talk freely and exchange ideas with each other.

**Demonstration:** Health educators often find themselves giving a demonstration in the course of performing their duties. This form of health education is based on learning through observation. There is a difference between knowing how to do something and actually being able to do it. The aim of a demonstration is to help learners become able to do the skills themselves, not just know how to do them. Make sure that the demonstration is relevant to the local situation, find ways to make health related demonstrations a pleasant way of sharing knowledge. Although demonstration sessions usually focus on practice they also involve theoretical teaching as well showing how is better than telling how'. If I hear, I forget. If I see, I remember. If I do, I know (Chinese proverb). Note that: You remember 20% of what you hear, you remember 50% of what you hear and see and you remember 90% of what you hear, see and do with repetition, close to 100% is remembered.

**Role Play:** In role play, some of the participants take the roles of other people and act accordingly. Role play is usually a spontaneous or unrehearsed acting out of real-life situations where others watch and learn by seeing and discussing how they might behave in certain situations. Learning takes place through active experience; it is not passive. It uses situations that the members of the group are likely to find themselves in their lives. The use of role playing cannot be over-emphasized because it shows real

situations. It is a very direct way of learning; participants are given a role or character and have to think and speak immediately without detailed planning, because there is usually no script.

**Drama:** drama is a very valuable method that can be used to discuss subjects where personal and social relationships are involved. Basic ideas, feelings, beliefs and values about health can be communicated to people of different ages, education and experience. It is a suitable teaching method for people who cannot read, because they often experience things visually. However the preparation and practice for a drama may cost time and money.

**Traditional Means of Communication:** Traditional means of communication exploit and develop the local means, materials and methods of communication, such as poems, stories, songs and dances, games, fables and puppet shows. Some of the benefits of traditional means of communication are that they are realistic and based on the daily lives of ordinary people; they can communicate attitudes, beliefs, values and feelings in powerful ways; they do not require understanding that comes with modern education in the majority of instances; they can communicate problems of community life, they can motivate people to change their behaviour and they can show ways to solve problems.

**Health Learning Materials:** Health learning materials are those teaching aids that give information and instruction about, health specifically directed to a clearly defined group or audience. The

health learning materials that can be used in health education and promotion are usually broadly classified into four categories: printed materials, visual materials, audio and audio-visual materials.

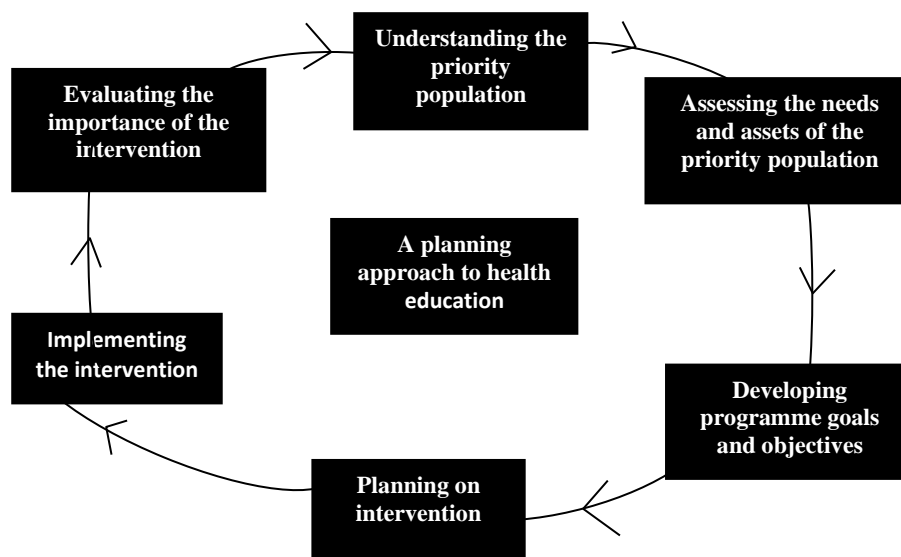
**Posters:** In recent years, the use of posters in communicating health messages has increased dramatically. Since a poster consists of pictures or symbols and words, it communicates health messages both to literate and illiterate people. It has high value to communicate messages to illiterate people because it can serve as a visual aid. The main purposes of posters are to reinforce or remind people of a message received through other channels and to give information and advice, for example, to advise people to learn more about malaria. They also function to give directions and instructions for actions, such as a poster about practical malaria prevention methods. Posters can also serve to announce important events and programmes such as World Malaria Day. Visual aids like posters explain, enhance, and emphasize key points of the health messages. They allow the audience to see the ideas in pictures and words.

**Flip Chart:** Flip charts are useful to present several steps or aspects that are relevant to a central topic, such as, demonstration of the proper use of mosquito nets or how HIV is transmitted. When using the Flip chart in health education each page must be discussed completely before turning to the next and then make sure that everyone understands each message. At the end, go back to the

first charts to review the subject and help people remember the ideas.

**Leaflets:** Leaflets are the most common way of using print media in health education. They can be a useful reinforcement for individual and group sessions and serve as a reminder of the main points that have been made. They are also helpful for sensitive subjects such as sexual health education. When people are too shy to ask for advice they can pick up a leaflet and read it privately. In terms of content, leaflets, booklets or pamphlets are best when they are brief, written in simple words and understandable language. A relevant address should be included at the back to indicate where people can get further information.

**Visual Materials:** Visuals materials are one of the strongest methods of communicating messages, especially where literacy is low amongst the population. They are good when they are accompanied with interactive methods. It is said that a picture tells a thousand words. Real objects, audio and video do the same. They are immediate and powerful and people can play with them!



**Figure 1:** Common Components of Health Education Planning Models.

Source: McKenzie et al (2005)

## Effective Health Education Initiatives and Strategies

### Systematic Reviews

Systematic reviews summarize the overwhelming amount of health-related research initiatives that exist and also provide health providers and decision-makers with information on evidence-based practice (Green, 2005). A number of systematic reviews have been done on the effects of health, health care, education and social justice-related interventions (Abd-el-Aziz, Akl and Ibrahim 2009). One of the most comprehensive tools available to identify effective health education, health promotion and public health strategies is The Guide to Community Preventive Services: Systematic Reviews and Evidence-Based Recommendations, prepared by the Task Force on Community Preventive Services for the US Department of Health and Human Services in 1996 (The Community Guide, 2011). The purpose of the Guide is to provide public health practitioners and decision-makers with recommendations regarding

population-' based interventions for promoting health and preventing disease, injury, disability and premature death in communities. Its aim is to promote evidence-based public health practice by providing best advice on which community-based health promotion and disease prevention interventions work and which do not work, based on available scientific evidence.

Although the primary focus for the Guide is on interventions that have been evaluated in industrialized nations, health educators in developing nations might well find the information relevant to their situations (Vivas and gelaye, 2010). More than 200 interventions in the following topical areas have been reviewed, and the Task Force on Community Preventive Services has issued recommendations for their use in the following areas, among others: adolescent health, alcohol, asthma, birth defect, cancer, diabetes and violence. Others include: HIV/AIDS, STIs and pregnancy, mental health, motor vehicle, nutrition, obesity, worksite and oral health,

as well as physical activity, social environment, tobacco and vaccines.

### **Example: Worksite Programmes to Control Overweight and Obesity**

Worksite nutrition and physical activity programmes are designed to improve health-related 'behaviour and health' outcomes. These programmes can include one or more approaches to support behavioural change, including informational and educational; behavioural and social; and policy and environmental approaches.

### **Results of the Systematic Review**

Forty-seven studies qualified for the review and included three outcome measures: body mass index (BMI), weight and percentage body fat. The most common intervention strategies included both informational and behavioural skills components (32 studies). Few studies (four studies) looked at policy and environmental changes in the worksite. Effects on the three outcomes consistently favoured; the intervention group compared to the controls (31 studies receiving more intensive versus less intensive strategies (nine studies) in individually randomized controlled trials, results showed that compared with control groups after 12 months, participating employees lost an average of 2.8 pounds (1.3 kg, nine studies) and reduced their average BMI by 0.5 (six studies), no one focus diet, physical activity, or combination of both appeared to be better than others in terms of its effect on weight loss, most of the studies involved a white-collar workforce that included some overweight employees or employees with other chronic disease risk conditions and

the range of cost-effectiveness estimates from three studies (two involving weight-loss competitions and one involving a physical fitness programme) varied from US\$ 1.44 (N511) to US\$ 4.16 (N1518.4) per pound (US\$ 3.17, N1157.05 to US\$ 9.15, N3339.75 per kg) of weight reduction. The Task Force on Community Preventive Services recommends worksite programmes intended to improve diet and/or physical activity, based on the strong evidence of their effectiveness for reducing weight among employees.

### **Health Education Planning, Implementation and Evaluation: Effective Strategies, Barriers and Successes**

Increasingly, health education professionals are using a concept born out of the continuous quality improvement discipline called "best practices", which some have renamed "leading practices". The intent is to identify solid practices that can be of assistance to decision-makers and service providers. The logic behind leading practices is that by sharing non-proprietary ideas/Applications/processes in an organized fashion, the diffusion of successful practices was hastened, and thus the need to learn by trial and error (with a high price for failure) is minimized. Perumal cited in WHO (2012) stated that components that appear to be essential to effective community-based health education and prevention strategies include the following:

- a. **Participant Involvement:** Community members should be involved in all phases of a programme's development: identifying community needs, enlisting

the aid of community organizations, planning and implementing programme activities and evaluating results.

- b. **Planning:** Many programmes take two or three years to move from original conceptualization to the point at which services are delivered. Planning involves in identifying the health problems in the community that are preventable through community intervention, formulating goals, identifying target behaviour and environmental characteristics that will be the focus of the intervention efforts, deciding how stakeholders will be involved and building a cohesive planning group.
- c. **Needs and Resources Assessment:** Prior to implementing a health education initiative, attention needs to be given to identifying the health needs and capacities of the community and the resources that are available.
- d. **The Comprehensive Programme:** The programmes with the greatest promises comprehensive, in that they deal with multiple risk factors, use several different channels of programme delivery, target several different levels (individuals, families, social networks, organizations, the community as a whole) and are designed to change not only risk behaviour but also the factors and conditions that sustain this behaviour (for example, motivation, social environment).
- e. **An Integrated Programme:** The programme should be integrated; each

component of the programme should reinforce the other components. Programmes should also be physically integrated into the settings where people live their lives (for example, worksites) rather than solely in clinics.

- f. **Long-term Change:** Health education programmes should be designed to produce stable and lasting changes in health behaviour. This requires longer-term funding of the programme and the development of a permanent health education infrastructure within the community.
- g. **Altering Community Norms:** In order to have a significant impact on an entire organization or community, the health education programme must be able to alter community or organisational norms and standards of behaviour. This requires that a substantial proportion of the community's or organization's members be exposed to programme messages, or preferably be involved in programme activities in some way.
- h. **Research and Evaluation:** A comprehensive evaluation and research process is necessary, not only to document programme outcomes and effects, but to describe its formation and process, and its cost-effectiveness and benefits.

### **Challenges to Implementing Health Education and Prevention Programmes**

WHO Regional Office for the Eastern Mediterranean (2012) noted that despite the fact that prevention through evidence-based health education intuitively makes sense since much evidence accumulated



over many years of research clearly demonstrates the context in which and the groups for whom behaviour can most effectively be modified. The fact still remains that so much evidence generates so little action when it comes to opportunities for prevention strategies to improve the health of our communities. Also, initiatives with proven efficacy in one area fail to be adopted in communities experiencing similar health problems in other locations. This may be due to the fact that there are barriers and challenges that communities experience in adopting and embracing new prevention strategies.

Below, is a description of how these obstacles can be addressed and in some cases, be viewed as opportunities as presented by the WHO Regional Office for the Eastern Mediterranean (2012):

First and foremost, the strongest ally of any health education effort is the people it serves. Raising public awareness of the issues that affect health and of how the public can influence these issues needs to be the centerpiece of any health education

strategy. Nwachukwu (2006) said while professionals learn through data, communities learn through story. "Stories can bring both the potential and -the consequences to a personal level". Health education initiatives should be based on the needs and capacities of the local community and on an open and participative process. Next, attention must be focused on the most cost-effective techniques and strategies that exist. While research in this area is ongoing, with many questions still unanswered, sufficient evidence already exists on the magnitude of the health gains that could be gained across populations if certain preventive strategies were put in place. Finally, the old saying "healthy choices should be easy choices" has never been so true. People's behaviour, for many reasons, tends to gravitate towards the avenue of least resistance. A product that is less expensive, easier to obtain or displayed in a more attractive way is the one that will be chosen.

### **Types of Investigations According to Age Ranges**

Based on your individual health conditions, your doctor will determine which tests you should have, and how often to have them, but in general, the medical exams suggested below will help keep you a finely-tuned machine throughout your life.

**Table 1: Preferred Annual Test**

	3-10	10-20	20-35	35-50	50-60	60-70	>70
BMI		✓	✓	✓	✓	✓	✓
FASTING BLOOD SUGAR			✓	✓	✓	✓	✓
BLOOD PRESSURE			✓	✓	✓	✓	✓
CHOLESTROL LEVEL			✓	✓	✓	✓	✓
FULL BLOOD COUNT	✓	✓	✓	✓	✓	✓	✓
CHEST XRAY	✓	✓	✓	✓	✓	✓	✓
ECG AND ECHOCARDIOGRAM			✓	✓	✓	✓	✓
LIPID PROFILE			✓	✓	✓	✓	✓
PAP SMEAR(females)			✓	✓	✓	✓	✓
MAMMOGRAM(females)				✓	✓	✓	✓

LIVER FUNCTION TEST				✓	✓	✓	✓	✓
URINE TEST				✓	✓	✓	✓	✓
ABDOMINAL AND PELVIS ULTRASOUND	✓	✓	✓	✓	✓	✓	✓	✓
THYROID FUNCTION TEST		✓	✓	✓	✓	✓	✓	✓
KIDNEY FUNCTION TEST			✓	✓	✓	✓	✓	✓
PSA(males)						✓	✓	✓
EYE CHECK	✓	✓	✓	✓	✓	✓	✓	✓
DENTAL CHECKUP	✓	✓	✓	✓	✓	✓	✓	✓

**Source:** Mercola (2018)

Furthermore, Heartland (2015) carried out a research on Routine Medical Check-up: Knowledge and Practice in a community in South West Nigeria, in their research, they find out that despite that several individuals are aware of routine medical examination the impact of its uptake is low. Older people utilized medical examination more frequently. Some respondents imbibe some healthy life style thinking that it can be substituted for routine medical examination. Effort is needed to make sure that routine medical examination is encouraged especially among younger adults. Their research concluded that effort is needed in ensuring that routine medical examination is encouraged.

### Conclusion

The tradition and culture of health education and prevention incorporates, among other virtues, a growing 'scientific base, a sound philosophy based on great compassion and dedication and recognition that through planned action, improved health can be achieved and maintained. Health education is important in ensuring that the community is aware of the importance and type of medical examination that will be beneficial to them. Routine medical examination requires some coping health education

skills that is capable of making sure older and younger adults are properly guided and counseled to ensure their potentialities to improve themselves and the society.

### Recommendations

In order for routine medical examination to be practiced, the following recommendations are made:

1. Health education strategy on raising public awareness of the issues that affect health and how the public can influence these issues needs to be the centerpiece.
2. Effective community-based health education and prevention strategies should be carried out.
3. Health Talks should be done to share health knowledge and facts with the people.
4. Posters can also serve to announce important events and programmes such as World Malaria Day.
5. Leaflets, booklets or pamphlets that are brief, written in simple words and understandable language should be used to disseminate health information.

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