NIGER DELTA UNIVERSITY
WILBERFORCE ISLAND, BAYELSA STATE.

53rd Inaugural Lecture

Health Promotion, Health Literacy, Primary Health Care, Health Education: Mother of All Three

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Motto

Creativity, Excellence, Service

Vision

To be a centre of excellence defined by well articulated programme that will produce creative and innovative minds

Mission

To strive to maintain an international reputation for high quality scholarship, research and academic excellence for the promotion of thesocio-cultural and economic well-being of mankind

NIGER DELTA UNIVERSITY ANTHEM (THE BRIGHTEST STAR)

Like the brightest star we are, to lead the way
To good education that is all our due,
The dream of our fathers like the seed has grown;
Niger Delta University if here to stay.

Let us build on this noble foundation
And with love, let our dedication increase,
To rise and uphold this noble vision
Ev'ry passing moment let our zeal never decrease.

In all that we do, let us bring to mind
Our duty as staff and students of N.D.U
Ev'rywhere to promote peace towards mankind.
Creativity, Excellence and Service

CHORUS
Rejoice, great people old and new, rejoice
For the good fruit through us is shown;
Be glad in our worthy contribution
To the growth of humanity (x2)

CONTENTS

DEDICATION

I dedicate this inaugural lecture to my late parents Sergeant Mathew and Mrs Madylene Telu for the educational foundation they laid in my life, I am forever grateful.

PROTOCOL

The Vice Chancellor
Deputy Vice Chancellor (Administration)
Deputy Vice Chancellor (Academic)
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Heads of Department
Academic and Non-Teaching Staff
Great Students of Niger Delta University
My Family Members, Friends and Well Wishers
Distinguished Ladies and Gentlemen

PREAMBLE

Mr Vice-Chancellor Sir, with honour and gratitude to Almighty God whose mercies kept me and grace brought me thus far; to Him be all the praise, glory, honour, dominion and majesty in Jesus name amen. I stand with all pleasure to honour the gracious opportunity and privilege of presenting this 53rd inaugural lecture of our great University on behalf of my great Faculty, the Faculty of Education. It is pertinent to share with you my amiable Vice Chancellor that this is the first inaugural lecture from the Department of Science Education and the tenth in the Faculty of Education.

I have chosen for myself the title: 'health Promotion, Health Literacy, Primary Health Care:Health Education Mother of all Three' to argue the place of health education as the bedrock of health promotion, health literacy as well as primary health care. This is because without an understanding of health personally, it cannot be promoted. I intend to examine the three concepts (health promotion, health literacy and primary health care) and justify how health education is the mother of all three. I will then conclude my lecture by highlighting some of my footprints in the sands of knowledge in education generally, science education and cap it all with my contributions to the field of health education in which I am a professor.

INTRODUCTION

Underpinning the fields of Health Promotion, Health Literacy, and Primary Health Care, is Health Education. According to World Health Organisation(WHO Centre for Health Development, 2005:30), "health promotion is the process of enabling people to increase control over, and to improve, their health. It moves beyond a focus on individual behaviour towards a wide range of social and environmental interventions". Dr. Michael O'Donnell cited in Green, Tones, Cross and Woodall (2015), a leading scholar in the field of worksite health promotion, offers this definition of health promotion:

> The art and science of helping people discover the synergies between their core passions and optimal health, enhancing their motivation to strive for optimal health, and supporting them in changing their lifestyle to move toward a state of optimal health. Optimal health is a dynamic balance of physical, emotional, social, spiritual, and intellectual health. Lifestyle change can be facilitated through a combination of learning experiences that enhance awareness, increase motivation, and build skills, most important, through the creation of opportunities that open access to environment that make positive health practices the easiest choice (O'Donnell, 2002 p.xx cited in Green et al. 2015).

The goal of health promotion is to create a society that is healthy and encourages people to live a healthy lifestyle.

This can be done through the establishment of a culture of health that is visible in places where people live, work, and worship. Definition and discourses like this erroneously place health education as a component with in the field of health promotion but I beg to disagree as health education is rather the bedrock or foundation on which health promotion hinges (health education help individuals and communities improve their health through learning experiences aimed toward increasing knowledge or influencing attitude); without health education, promoting health will be difficult.

Health Literacy was defined by Kickbusch (2001) as the ability of citizens to make sound decisions concerning health in daily life - at home, at work, in health care, at the market place and in the political arena. A systematic literature review of existing health literacy definitions and models resulted in an integrated definition of the concept as the knowledge, motivation and competences to access, understand, appraise and apply health information in order to make judgments and take decisions in everyday life concerning health care, disease prevention and health promotion to maintain or improve quality of life throughout the course of life (WHO, 1986). In addition, a conceptual model was developed that captures the most comprehensive evidence-based dimensions of health literacy with its main antecedents and consequences (WHO, 1986). The definition

proposed by Sørensen et al. (2012), which states that health literacy entails people's knowledge, motivation and competences to access, understand, appraise, and apply health information in order to make judgments and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve quality of life during the life course.

In order for one to undertake the responsibility of making informed decision, one needs to be health educated. Health literacy is an important aspect of health education and health promotion; it deals with the understanding of health information that can bring about sound and healthy lifestyle. Just as there is a universal right of access to healthcare, as well as universal right to education, the universal right of access to health literacy which is a synergy of health and education must be recognized by all stakeholders. The more health literate an individual is, the healthier the individual will be.

Adams, Stocks, Wilson and Hill (2009) viewed health literacy (HL) as more than the ability to read, write, and understand numbers in a health context. Health literacy is the cognitive ability to understand and interpret the meaning of health information in written, oral, or digital form. This

affects people's ability to accept or ignore health-related actions and make informed health decisions in the context of everyday life. Specifically, HL involves knowing bodily functions and signs of dysfunction; know how to find, interpret, and understand information and how and where to find additional information if needed. This affects the individual's ability to communicate with the relevant healthcare professionals, to discern what constitutes good quality advice, and to turn that help into action (Kickbusch, 2007).

Primary Health Care emanated from the WHO Alma Ata Declaration as a system of health care delivery which can be extended to all citizens irrespective of where they live or work at a cost that they can afford. According to WHO, PHC means essential health care based on practical, scientifically sound and socially acceptable methods and technology, made universally accessible to individuals and families in the community through their full participation and at a cost which the country can afford to maintain at every stage of their development in the spirit of self reliance and self determination. It forms an integral part of a country's health system of which its central function and main focus is the overall social and economic development of the community. Primary Health Care is the first level contact of an individual

and community with the national health system, bringing health care as close as possible to where people live and work and contributes the first element of continuing health care process. Erroneously, health education (HE) is seen as an integral part of PHC which should not be as without health education, the objectives of PHC and its components activities will not be achieved.

Health education is different from health information. Health information is information prepared and disseminated in the form of pamphlets, monographs, posters, billboards, television and radio advertisements, films, etc. Without motivation and action, medical information is nothing more than propaganda. Health education, on the other hand, is a process by which health information is successfully communicated in such a way that the recipient is motivated to use the information to promote, protect, maintain or restore his or her health, family and community health. . Health education can be expressed mathematically as: Health education = Health information + Motivation + Action.

CONCEPT OF HEALTH PROMOTION

The health promotion field emerged during the second half of the twentieth century as medicine and science became successful treating infectious diseases with antibiotics,

advancing maternal and child health, and improving sanitation practices. These gains significantly improved the quality and quantity of life for all. Changing individual and societal health behaviour is a very complex process. Since the 1980s, more research (including those carried out by the inaugural lecturer) has shown that for individuals to successfully adopt healthy behaviours, social, behavioural, and environmental factors also must be part of the process of change. The healthy choice must be the easy choice in our homes, schools, workplaces, and communities. The vision is to live in a country where culture of health is seen, practiced, and supported throughout life span.

A critical examination of the history of health issues related to death and disability provides us with an appreciation of how social and environmental factors influence disease patterns. By examining the life expectancy of men and women, one can understand how medical and health advances have affected the health of a population. Life expectancy is a measure of the health status of a given population and is defined as 'the average number of years a person from a specific cohort is projected to live from a given point of time' (Begoray, Wharf-Higgins & MacDonald, 2009). At the beginning of the twentieth century, the life expectancies of men and women were 46.3 and 48.3 years, respectively. Infectious diseases such as

influenza, pneumonia, tuberculosis, and gastrointestinal infections were the leading causes of death. The discovery of antibiotics and improved sanitation practices significantly contributed to increasing life expectancies by the 1950s, reaching sixty-five and seventy-one years for men and women, respectively.

As an end result of the advances of immunizations, antibiotics, maternal and baby fitness, and progressed sanitation practices, existence expectancy increased. Extending years of life was a positive advancement. However, one result of a longer life expectancy is the more significant impact that personal health choices and environmental factors have on the development of chronic conditions, sometimes referred to as non-communicable diseases, which are not infectious or transferable from one person to another. Chronic disease is defined as a health condition or disease that lasts for a long period of time, usually for longer than three months. Chronic diseases also tend to take a long period to develop. Chronic conditions are usually managed with lifestyle changes, medication, or surgical approaches, depending on the disease.

A key issue in defining health promotion is whether it is viewed as an umbrella term, covering the activities of a range of disciplines committed to improving the health of the

population, or as a discipline in its own right. Bunton and Macdonald (2002:6) suggest that 'recent changes in the knowledge base and the practice of health promotion are characteristic of paradigmatic and disciplinary development'. They take a discipline to involve an ordered field of study embracing associated theories, perspectives and methods (Green et al, 2015). Green et al (2015) further posited that a discipline would be expected to have its own ideology that would also inform standards of professional practice.

Prior to my analysis of the ideology of health promotion and the values integral to different models, I will briefly clarify the distinction between health education and health promotion. Although the generic use of the term 'health promotion' to describe any activity that improves health status can be traced back earlier, Terris (1996) noted that in 1945 Henry Sigerist described the four tasks of medicine as the promotion of health, prevention of illness, restoration and rehabilitation of the sick (cited by French, 2000). However, it was not until the late 1970s that this term began to be applied in a more specific way to a concept, movement, discipline and, indeed, profession in which health education is its foundation. While a systematic account of the history of health promotion is beyond this lecture it is noteworthy that

the roots of contemporary health promotion are in health education and as such will be briefly discussed.

The emergence of health promotion has responded to the need to address behavioural and environmental determinants of health. In fact, it marks the transition from being preoccupied with healthy choices to making healthy choices the easy ones. The development of health promotion has been accompanied by considerable debate about its nature and purpose - a debate that has exposed its underlying values.

The World Health Organization (WHO) has played an important role in shaping the evolution of health promotion. Its materials are not only a reference source for health promotion practice, but are also incorporated into professional training courses, i.e. they have become an integral part of health promotion theory. In January 1984, WHO introduced a new 'health promotion' program. A discussion paper on health promotion (WHO, 1984) considers it a 'unifying concept' that brings together people who recognize the need to change lifestyles and living conditions to promote health. WHO defines 'health promotion' as the processes that enables individuals to better control and improve their health (WHO, 1984). Income, housing and food have been recognized as essential

conditions for health. The provision of information and practical skills is also valued, creating supportive environments that provide opportunities for healthy choices and facilitate health in economic, physical, and social settings in society and culture.

WHO document outlined the key principles of health promotion as follows:

- The involvement of the whole population in the context of their everyday life and enabling people to take control of, and have responsibility for, their health;
- Tackling the determinants of health - that is, an upstream approach, which demands the cooperative efforts of a number of different scores at all levels, from national to local;
- Utilizing a range of different, but complementary, methods and approaches – from legislation and fiscal measures, organisational change and community development to education and communication;
- Effective public participation, which may require the development of individual and community capacity;
- The role of health professionals in education and advocacy for health (WHO, 1984).

Action is therefore seen as requiring an integrated effort to promote individual and community responsibility for the health and development of a healthy environment. The document reflects a commitment to volunteering and formally acknowledges the risk of influencing individuals' behaviour. Other potential problems include an overemphasis on individual behaviour rather than on the social and economic determinants of behaviour and the potential for social inequality to increase if the capabilities of the groups differ. Social differences in control of their health are not resolved. Another concern is that health promotion can be used by specific professional groups to the exclusion of others and the laity. A series of major international conferences followed. The Ottawa Charter, developed at the first international conference on health promotion (WHO, 1986), builds on many of the key principles outlined in the WHO discussion paper and serves as a independent references.

WHO (1986) identified three key strategies for working in the health promotion space:

- Advocacy: to ensure the creation of conditions favourable to health;
- Enabling: by creating a supportive environment, but also by giving people the information and skills that

they need to make healthy choices;

- Medication: between different groups to ensure the pursuits of health.

The Ottawa Charter listed five main action areas that have been central to the conceptual framework of health promotion:

- Build healthy public policy;
- Create supportive environments;
- Strengthen community action;
- Develop personal skills;
- Reorient health services.

There can be some tension between individual and social responsibility for health, between individual and collective responsibility, and between volunteering and controlling. The Ottawa Charter addresses this by viewing individuals as responsible for their own health, but also a collective concern for the well-being of others (this cannot be more true than our experience of Covid-19 in which none is save except all are save). However, society has a greater responsibility to create the conditions that allow people to take responsibility for their health. For the fact that health is created where people 'learn, work, play and love' heralds a 'settings approach' to health promotion.

The 2nd International Conference on Health Promotion in Adelaide (WHO, 1988) focused on healthy public policy as a means of creating a supportive environment to improve health and also contributing - in clusters heavily used word - to make healthy choices easy choices. In particular, the conference recognizes the importance of meeting the needs of disadvantaged and disadvantaged groups, and emphasizes the responsibility of high-income countries to ensure that their own policies have an impact (a positive impact on low-income countries). It considers sound public policy to be characterized by a clear concern for health and equity in all policy areas and accountability for health impact. The Adelaide Conference identifies the need for a strong support for health equity and also sees community action as the main driver.

The Sundsvall Conference (WHO, 1991) addressed the issue of a healthy environment. In addition to the physical environment, it recognized the importance of the influence of the social environment, social and cultural norms on behaviour. The conference documents also noted the challenge to traditional values due to changing lifestyles, increasing social isolation and a lack of cohesion. The need for action at all levels and across sectors was recognised and, in particular, the capacities for community action just like

the Adelaide conference. The key elements of a 'democratic health promotion approach' were seen to be empowerment and community participation. The importance of education as a means of bringing about political, economic and social changes was recognised as well as its being a basic human right.

The Jakarta Declaration on Leading Health Promotion into the 21st Century (WHO, 1997) was developed at the 4th International Conference on Health Promotion. It viewed health both as a right and as instrument to social and economic development. It envisions the 'ultimate goal' of health promotion as increasing life expectancy through targeted action on health determinants to:

- Create the greatest health gain;
- Contribute to reduction in inequities;
- Further human rights;
- Build social capital.

The Jakarta Declaration built on the commitment of the previous documents (Ottawa Charter, Adelaide and Sundsvall) and provided clear endorsement of the value of comprehensive approaches and involving families and communities. It called for strong partnerships to promote health including – for the first time – the involvement of the private sector. Overall, the priorities set out for the twenty

–first century were to:

- Promote social responsibility for health;
- Increase investments for health development;
- Consolidate and expand partnerships for health;
- Increase community capacity and empower the individual;
- Secure an infrastructure for health promotion.

The first resolution on health promotion, which was passed at the 51st World Health Assembly in May 1998 (WHO, 1998a) incorporated the thinking of the Jakarta Declaration. As it moved into the 21st Century, the WHO (1998b) identified the following key values underpinning the 'Health for All' movement:

- Providing the highest attainable standard of health as a fundamental human right;
- Strengthening the application of ethics to health policy, research and service provision;
- Equity-orientated policies and strategies that emphasize solidarity;
- Incorporating a gender perspective into health policies and strategies.

The 5th Global Conference on Health Promotion held in Mexico City in 2000 focused on 'bridging the equity gap'.

The conference issued a Ministerial Statement signed by some 87 countries (WHO, 2000a), that acknowledged that the promotion of health and social development is a central duty and responsibility of governments that all sectors of society share; and concluded that health promotion must be a fundamental component of public policies and programmes in all countries in the pursuit of equity and health for all (WHO, 2000a). The Mexico City conference emphasized the need to 'work with and through existing political systems and structures to ensure healthy public policy, adequate investment in health, and facilitation of an infrastructure for health promotion' (WHO, 2000b: 21).

The Bangkok Charter for Promoting Health in a Globalized World (WHO, 2005) has addressed growing global problems by focusing attention on growing inequalities between countries, commercialization and new styles of supply and communication, as well as environmental changes and global urbanization. The Charter posited the following mandatory actions:

- Advocacy for health based on human rights and solidarity;
- Invest in sustainable policies, actions and infrastructure to act on the determinants of health;
- Capacity building for policy formulation, leadership,

health promotion practice, knowledge transfer and research, and health literacy;
- Regulate and legislate to ensure a high level of protection against harm and to provide equal opportunities for health and well-being for all;
- Create partnerships and alliances with public, private, NGO and international organizations and civil society to create sustainable actions.

The Charter further requested four more major commitments to health promotion:

- The focus of the global development agenda;
- Central accountability to the entire government;
- Primary focus for communities and civil society;
- Requirements for good business practices.

Although the number one challenge of these documents and charters is figuring out suitable actions, indeed, it could be said that unless activity is consistent with these values, it should not be regarded as 'health promotion'. These values include equity and empowerment – the twin pillars of health promotion –along with health as a right, voluntarism, autonomy, participation, partnerships and social justice. Consideration of rights and responsibilities, power and control generates some interesting paradoxes in relation to health education and policy interventions.

The seventh and eighth WHO Conferences on Health Promotion had been held in Nairobi in 2009 and Helsinki in 2013, respectively. Importantly, the Nairobi convention became the first to be carried out on the African continent. The Nairobi Call for Action specifically addresses action needed to close the implementation gap in health and development through health promotion (Catford, 2010; WHO, 2009). One of the key themes of this conference was mainstreaming health promotion in health policy. Empowerment remained central. The key urgent responsibilities were outlined as follows:

- Strengthen leadership and workforces;
- Mainstream health promotion;
- Empower communities and individuals;
- Enhance participatory processes;
- Build and apply knowledge (WHO, 2009).

The importance of policy was again highlighted in the Helsinki conference. “Intersectoral action and healthy public policy were identified as key requirements for health promotion. The conference statement emphasises the 'Health in All Policies' approach, calling for cross-governmental action and political will (WHO, 2013). All these various actions identified by the various Declarations

and Charters during the various World Conferences on Health as enumerated in this inaugural lecture cannot be achieved without adequately health educating the citizenry, creating enabling environment, and political will-power. Health education therefore sits at the core of the Charters' and Declarations' achievement making health education the mother of health promotion.

CONCEPT OF HEALTH LITERACY

An Ad Hoc Committee of the American Medical Association defined functional health literacy as the ability to read and comprehend prescription drug bottles, appointment slip, and other essential health-related materials required to successfully function as a patients(American Medical Association, 1992). Health Literacy is defined as the degree to which individuals have the degree to obtain, process and understand basic health information and services needed to make appropriate health decisions (Selden, Zorn, Ratzan & Parker, 2000). Health literacy is not simply the ability to read, it requires a complex group of reading, listening, analytical and decision-making skills and the ability to apply these skills to health situations. Also, health literacy entails the ability to understand instructions on prescription drug bottles, appointment slips, medical education, brochures, doctor's decisions, consent form and the ability to negotiate complex health care system. In the report submitted by the

Health People in 2010 cited in Green, Tones, Cross and Woodall (2015), health people identified health literacy as an importance component of health communication, medicine product safety and oral health. However, WHO (1998c) glossary of health promotion terms described Health Literacy as the cognitive and social skills which determine the motivation and ability of individuals to gain access to understand and use information in ways which promote and maintain good health. In addition to WHO (1998c) glossary, health literacy meant more than being able to read pamphlets and successfully make appointments.

Aside from communication skills and literacy, behaviour is anything else that can affect a person's abilities. There is close link between a person's behaviour and his health, in other word, a change in one will create a change in other. Research (Tenibiaje, 2014) shows that changing individual health behaviour can reduce risk factors and reduce the likelihood of developing certain diseases. According to Schillinger (2005), individuals have different motivation for changing their behaviour, the actions that they are taking to change their health behaviour depends on adequate knowledge (health education) which increases adequate health literacy. According to Chiarelli (2006) everyone has different interests or motivation for changing their behaviour. People move through different stages of change which lead to taking action to improve their health.

Bröder,Okan, Bauer, Bruland, Schlupp, Bollweg, Saboga-Nunes, Bond, Sørensen, Bitzer, Jordan, Domanska, Firnges, Carvalho, Bittlingmayer, Levin-Zamir, Pelikan, Sahrai, Lenz, Wahl, Thomas, Kessl and Pinheiro (2017) carried out an in-depth assessment of HL in children and young adults. Children and young people constitute a core target group for health literacy research and practice as during childhood and youth, fundamental cognitive, physical and emotional development processes take place and health-related behaviours and skills develop. The research review provided an overview and synthesis of current understandings of health literacy in childhood and youth. The systematic review of the literature identified 12 definitions of health literacy for children and young people which are presented below (adopted from Bröder et al, 2017):

Definitions of children's and young people's health literacy

Children & Primary School Students		
A	Fok & Wong (2002)	The meaning of health literacy for children is defined as the understanding and action of physical and psychosocial activities with appropriate standards, the ability to interact with people and deal with the necessary changes; requires reasonable self -control to achieve physical, mental, and social perfection.
B	Brown, Teufel, & Birch (2007)	For Brown et al. (2007), health literacy is simply defined as the ability to understand health information and understand that actions taken at a young age affect health later in life, combined with the ability to access to valid health information.

C	Massey, Prelip, Calimlim, Quiter, & Glik (2012)	Massy et al. (2012) took a broad view of health literacy and defined it as a set of skills used to organize and apply health-related know ledge, attitudes and practices when manage one's health environment.
D	Paakkari & Paakkari (2012)	Health literacy is defined as follows: Health literacy encompasses a range of knowledge and skills that people seek to grasp, evaluate, construct, and use. Through health literacy skills, people can make sense of themselves, others, and the world in a way that allows them to make informed health decisions, while addressing and changing factors that affect their health. factors that create opportunities for their own health and that of others.
E	Wu, Begoray, Macdonald, Wharf Higgins, Frankish, Kwan, et al. (2010)	Health literate people can understand and apply health information in ways that allow them to better control their health, for example by assessing reliability, accuracy and relevance information and act on it to change their health behaviors or living conditions.
F	Gordon, Barry, Dunn & King (2011)	Health literacy is the extent to which individuals have the ability to obtain, access, process, and understand basic health information and services needed to make appropriate health and coverage decisions, involves a process of continuously enhancing the capacity of individuals and communities to understand the components of health.
Different age groups or considering a life course perspective		
G	Borzekowski (2009)	Health literacy is not just the ability to read, it is a set of skills related to recognizing, processing, integrating, and acting on information from a variety of backgrounds. People between the ages of 3 and 18 can find, understand, evaluate and use health information, especially if the material is presented in an age-appropriate, culturally appropriate and socially acceptable manner. support association. Developing health literacy among children and young people can enable this vulnerable and disadvantaged group to participate, more effectively and healthier.

H	Soellner, Huber, Lenartz & Rudinger (2010)	[Translated] The working definition defines health skills (Gesundheitskompetenz) as th e accumulation of skills and abilities that someone possesses to be able to act in daily life and in relationships with the system. health systems, in a way that positively affects their health. -present.
I	Mancuso (2008)	A process that develops througho ut life and includes attributes of ability, understanding, and communication. The attributes of health literacy a re embedded in and preceded by skills, strategies, and abilities embedded in the competencies needed to achieve health literacy. Health literac y outcomes depend on whether a person achieves an adequate or incomplete level of health literacy and has the potential to affect individuals and society.
J	Nutbeam (2000)	The personal, cognitive and social skills which determine the ability of individuals to gain access to, understand, and use information to promote and maintain good health
K	Sørensen, van den Broucke, Fullam, Doyle, Pelikan, Slonska & Brand (2012)	Health literacy is related to literacy and involves people's knowledge, motivation, and sk ills to access, understand, evaluate , and apply health information to make informed judgments and decisions in daily life about health issues, health care, disease prevention and health promotion to maintain or improve quality of life throughout life.
L	Zarcadoolas, Pleasant & Greer (2005)	Health literacy evolves with life expectancy, from an early age, and like most complex human skills, it is influenced by health status as well as by demographic, pol itical, and demographic factors,s ocio-political, psychos ocial and cultural. Zarcadoolas et al. (2005) defines health literacy as a range of skills and competencies that people develop to find, understand, evaluate, and use health information and concepts to make informed choices. transparency, reduce health risks and improve quality of life.

Adopted from Broder et al. (2017)

Although defined differently, health information is often described as an individual, multidimensional structure (Zarcadoolas et al., 2005). As such, it goes beyond basic reading, writing, or computing capabilities (Borzekowski, 2009). Furthermore, health literacy includes a combination of different health-related skills, competencies and knowledge, as well as a motivational component that an individual possesses (Sørensen et al. events, 2012). Knowledge is considered an essential component of health literacy in children and adolescents. Mancuso (2008) states that a certain level of knowledge is required to understand the content as well as manage and analyze information and become autonomous about one's health and related decisions.

It is either described as (a) a central distinct dimension (Paakkari & Paakkari, 2012; Zeyer & Odermatt, 2009), as (b) an element of some dimension (Zarcadoolas, Pleasant & Greer (2003) , or (c) a basic or cross-cutting component (Sørensen, et al, 2012; Subramaniam, St Jean, Taylor, Kodama Follman & Casciotti, 2015; Wharf Higgins, Begoray & Macdonald, 2009; Massey et al, (2012)) and Lenartz, Soellner & Rudinger (2014) describe health-related basics as understanding basic terms describing the body or basic health-related relationships and functions. Others

distinguish between (a) theoretical or conceptual knowledge (i.e., (i.e. health facts, terms, principles), (b) situation-specific knowledge (means knowledge of specific health situations in health-related fields) and (c) practical or operational knowledge (for example, knowledge of behavioral appropriate action in a given situation) (Paakkari & Paakkari, 2012; Zeyer & Odermatt, 2009). Paakkari and Paakkari (20 12) describe conceptual knowledge as the procedural knowledge or skills required to behave in ways that promote health, often experiences, specific situations, and associated with daily practice. Massy et al. (2012) acknowledges that individuals need to be informed and consumers confident about healthcare. This includes knowing one's rights regarding sensitive matters or knowing one's health care responsibilities, e.g. health insurance benefits, and how and where to find information.

All discussions of the knowledge that underpin health-promoting decisions are born out of health education as the mother of health literacy. People cannot be literate about something they are not educated on. Health literacy from the literature reviewed has indicated the skills that will emerge from those trained and taught to become health literate. Training and teaching to bring about behavioural change is education, which means that health education is needed to

provide various skills that show health literacy. Health education is the basis for understanding health. This is why I argue that health education is the mother of health literacy.

CONCEPT OF PRIMARY HEALTH CARE

The aims and objectives of primary health care includes but not limited to: making health services accessible and available to everyone wherever they live or work; tackling the health problems causing the highest mortality and morbidity at a cost that the community can afford; ensuring that whatever technology is used, it must be within the ability of the community to use effectively and maintain; and ensuring that in implementing the health programmes, the community must be fully involved in planning the delivery and evaluation of the services in the spirit of selfreliance. PHC consist of several components which are discussed below and all these components hinge on health education for their achievement in the community.

Primary Health Care consisted of several components which include but not limited to: maternal and child health including family planning – as component of PHC, maternal and child health aims at promoting the health of mothers and child bearing age and their children so that children have the opportunity for normal growth and development and so that the reproductive life of women does not constitute too much

risk to their health and wellbeing. This cannot be achieved without health education (information, motivation and action which is health education). Although, only mothers and their children are mentioned here but maternal and child health services are not designed to exclude fathers. Fathers should be involved in all matters related to the health of their wives and children, especially family planning, mothers should consult a doctor.

Closely related to maternal and child health is **expanded programme on immunization (EPI)**. The aim of EPI within PHC is to reduce morbidity and mortality among children by providing immunization against the six major killer diseases of children aged zero to two years. These diseases include measles, tetanus, meningitis, whooping cough, poliomyelitis and diphtheria. The Expanded Programme on Immunization also aims to protect the health of mothers during delivery and neonates until the umbilical cord is healed by giving mothers tetanus immunization. Again the uptake of immunization is dependent on information, motivation, and action (health education).

Another component of Primary Health Care is **environmental health**: as a component of PHC, environmental health is designed to emphasize adequate

supply of safe water and basic sanitation. In Nigeria, poor sanitation and environmental pollution are major causes of disease.This leads to another component of PHC which is: **prevention and control of locally endemic diseases**. There are a number of endemic diseases that contribute largely to morbidity and mortality in children and adults. These diseases include: malaria, schistosomiasis, tuberculosis, lung cancer, filariasis, leprosy, meningitis, etc. All of these diseases are preventable and controllable. There are specific programs established within the PHC framework for the control and prevention of endemic diseases.

Appropriate treatment of common diseases and injuries is another component of PHC aims to prevent death and disability from common illnesses and injuries so that all children have the opportunity to grow and develop in good health. In Nigeria, one of the major health problems that have been successfully tackled through health education is diarrhoea, which is largely a fatal disease among children. With the advent of oral rehydration therapy (ORT), the high mortality rate often associated with diarrhoea in children has decreased significantly. Today, nearly every Nigerian mother knows how to prepare and administer oral rehydration fluid.

Closely related to prevention and control of common diseases is the component of **provision of essential drugs.**The drug component of each PHC is a major factor in increasing the cost of the national medical budget. Without proper drug supply and marketing policies, the pharmaceutical industry in developed countries will continue to treat developing countries as dumps. Therefore, it is necessary to identify endemic diseases in the area and select the most effective medicines for those diseases. This ensures that medical centres and hospitals can only store essential medicines.

Another component of PHC which is underpinned by appropriate health education is **food and nutrition.** In Nigeria, under-nutrition is one of the major factors contributing to infant mortality and morbidity. It is also a major cause of anaemia among pregnant women and lactating mothers. Affordability of food is also a problem but the understanding of food nutrients and its combination in a balanced diet is essential for proper and adequate nutrition.

Dental health is also a component of PHC but is not so pronounced in Nigeria but should be encouraged to take its rightful place in the scheme of PHC. This is because children these days consume a lot of sugary snacks and thereby at a

high risk of developing dental caries. This is especially true of children from middle and high social class families.

Finally, **mental health** which is different from mental illness is a component of PHC. Mental health is concerned with healthy person whereas mental illness refers to a state of mental 'breakdown' or psychiatric problem. As part of PHC, every community should have a mental health education programme. The programme is meant to educate (health education) community people on the factors that can lead to poor mental illness. The factors which should be emphasised in the health education include any behaviour or activity which can cause stress e.g. hostility, marital problems, lack of rest, poverty, poor neighbourhood, lack of recreation, child neglect or abuse, unemployment, tension within the extended family etc. As part of the programme, community people should be made aware of available facilities in the locality for the treatment of mental illness.

CONCEPT OF HEALTH EDUCATION

Early health education was seen as an adjunct to public health efforts. Examples of health education in the context of public health (including HP, HL and PHC) would today be described as health propaganda because it is often in the form of pamphlets, intended to induce political change in

support of a range of environmental health measures designed to combat extreme poverty and provide water supplies clean etc. Therefore, early health education is seen as a complement to public health efforts. Indeed, Naidoo and Wills (2009) noted that by the 1920s, health education was associated with 'diarrhoea, filth, phlegm, and venereal disease'. With a growing focus on individual health rather than public health, health educators have continued their supportive role in supporting the health industry.

Their activities during this period were mainly to inform and persuade through mass communication strategies. The main themes of early health education journals in the 1950s and 1960s focused on methods of disseminating information in ways that could capture people's attention and interest in substantive content of health messages. The main concern is the technical aspects of information transmission. The assumption is that if people are given the 'right' knowledge, they will act appropriately. As we have seen, this crude assumption underestimates the complexity of the health education task.

Two broad paths can be traced in the subsequent development of health education. One, the preventive approach, sought ever more sophisticated ways of achieving behaviour change by means of the application of

psychological theory. The other, which was more in tune with progressive educational philosophy, was concerned with enabling people to make informed choices, which is the educational approach. For example, in the period following the Lalonde Report (Lalonde, 1974) on the health status of the population of Canada, a renewed interest in the importance of the social and environmental influences on health status – both directly and indirectly by shaping behaviour – brought health education under fierce critical scrutiny; of particular concern were the emphasis on individual responsibility and the failure to recognise constraints on individual behaviour – most notably their economic and material circumstances (Green et al, 2015).

Health education was accused of 'victim-blaming' – a term attributed to Ryan (Ryan, 1976). The essence of victim-blaming lies in attempts to persuade individuals to take responsibility for their own health while ignoring the fact that they are victims of social and environmental circumstances. Ryan argued that the fundamental factors governing health were power and money. Ryan said:

> Being poor is stressful. Being poor is worrisome; one is anxious about the next meal, the next dollar, the next day. Being poor is nerve-wracking, upsetting. When you're poor it's easy to despair and it's easy to

> lose your temper. And all of this is because you're poor. Not because your mother let you go around with your diapers full of bowel movement until you were four; or shackled you to the potty chair before you could walk. Not because she broke your bottle on your first birthday or breastfed you until you could cut your own steak. But because you don't have any money (1976: 157)

Health education is really the mother of health promotion as it is any activity planned to induce learning related to health or disease. Learning is generally defined as a relatively permanent change in ability or character - that is, the change is not transient and, after educational intervention, people can achieve what they are not able to perceive before intervening and/or feel differently about ideas, people or events. Accordingly, effective health education can lead to the development of cognitive abilities such as the acquisition of factual, understanding and insightful information. It can also provide problem-solving and decision-making skills and form or develop beliefs. It can also lead to the clarification of existing values and the creation of new ones - and quite often a change in attitude. Health education also aims to promote the acquisition of psychomotor skills or health-related social interactions. It

can even bring about changes in behaviour, lifestyle or facilitate the adoption of healthy public policies.

One of the most important and enduring sources of ideological argument revolves around the question of rationality and voluntariness. For example, Hirst (1969) unequivocally asserted that the central goal of all education should be rationality. Hirst (1969) cited the educational philosopher Baelz who contracts education with manipulation and with indoctrination:

> 'The educator encourages his/her pupil to develop the capacity to think for himself/herself, while the indoctrinator wishes to make it impossible for his pupil ever to question the doctrine that he/she has been taught (Hirst, 1979: 32).

The concept of doctrine is equated with the notion of dogma and typically refers to some creed or body of religious, political or philosophical thought that is offered for acceptance as truth. The purpose of indoctrination is, therefore, to present a body of ideas in an appealing way such that the ideas are accepted. The distinction between indoctrination and education is therefore fundamental (Green et al, 2015).

Health Education, Voluntarism and Choices for Health

For many health educators, voluntarism is an ideology sine qua non. For instance in Green and Kreuter's influential definition:

> Health education is any combination of learning experiences designed to facilitate voluntary actions conducive to health ... voluntary means without coercion and with the full understanding and acceptance of the purposes of the action (Green & Kreuter, 1999: 27)

Faden and Faden (1978) made the point even more forcibly in their discussion of the ethics of health education. They cited the Society of Public Health Educators' (SOPHE) Code of Ethics (1976), noting its affirmation of the importance of voluntary consumer participation:

> Health educators value privacy, dignity, and the worth of the individual, and use skills consistent with these values. Health educators observe the principle of informed consent with respect to individuals and groups served. Health educators support change by choice, not by coercion.

According to the educational model of health education, coercive strategies and techniques are, therefore,

unacceptable. Coercion occurs when an individual's or group's freedom of action is constrained. Faden and Faden (1978) cite Warwick and Kelman (1973), who defined coercion as a process forcing individuals to act or refrain from acting under the threat of severe deprivation – and clearly involving the application of power to reward or punish. It frequently imposed sanctions or other barriers. It is important, then, to recognise the existence of two varieties of coercion.

The first of these is externally imposed. For instance, it involves the implementation of policy measures imposing a potentially wide range of restrictive regulations, in the form of legislation, fiscal measures and environmental engineering. Examples of such 'healthy public policies' would include banning smoking in public areas; redesigning roadways and traffic calming measures; the inclusion of vitamins in popular food products; regulation of the food industry to reduce the fat content of products; increase in the price of alcohol; etcetera.

HEALTH EDUCATION: MOTHER OF ALL THREE

One of the most important recent developments in ideas about health care and illness is the widespread recognition that illness and in fact all health problems have multi-factorial aetiology. It is now being recognized that the germ theory of disease is just one of the various theories/models of disease causation which should be understood before there can be a breakthrough in man's effort to prevent, control or eradicate the major causes of morbidity and mortality in both developed and developing countries.

In addition to the germ theory, which was so successful in reducing infectious diseases, an important contribution was made by the epidemiological theory/model which was essential for development of preventive medicine and public health, as well as the cellular concept which was useful in the search for the causes of chronic and degenerative diseases, and by the mechanistic theory/model, which contributed to the development of surgery. In addition to these four theories/models, in recent times, a lot of effort is being concentrated in the study of the social influences which affect the occurrence and outcome of illness. This sociological theory/model has shown that diseases have both behavioural and non-behavioural aetiological components.

The pattern of disease in developing countries like Nigeria shows that there is a close relationship between ignorance, poverty and disease. The major causes of disease and death in these countries are infectious, parasitic diseases and malnutrition. All these diseases are highly preventable and can be controlled. Even hypertension which in recent times has claimed thousands of lives of young, promising Nigerians as a result of the economic hardship is highly preventable and controllable.

The question then is: how can we successfully prevent or control these diseases? Is it by building more hospitals and health centres, supplying enough drugs and vaccines or by training more doctors, nurses, and other health workers? Of course, even if all these are available, we cannot guarantee that people will make use of the facilities or consult the professional experts without motivating them to develop positive behaviour towards disease prevention and utilization of health services. In other words health education the yard stick for the achievement of health promotion, health literacy as well as primary health care, without the tool of health education as a mother of all three (HP, HL, and PHC), all our efforts to reduce maternal mortality and morbidity; and high mortality and morbidity among children; and improve health status of community people will not yield fruits.

As an illustration of the importance of health education as mother of all three, let us examine this story: there was an outbreak of guinea worm in a certain village. The health workers recognised that the people's source of water was a polluted stream. To eradicate the guinea worm infestation, the government installed in the village a bole hole and they were asked not to make use of the stream again. All information was delivered by a town crier. What was the result? The villagers abandoned the bole hole and continued to drink water from the stream. This was because they were not given adequate health education about the role of the stream in the aetiology of guinea worm infestation. Health education like I earlier mention is not just giving health information but the information must be backed up with motivation and action.

One of the ambitions of fitness training is to assist human beings to collect the know-how and capabilities to make sound and knowledgeable fitness associated choices primarily based totally upon their desires and pastimes so long as those choices do now no longer adversely have an effect on others. Its number one targets is to impact behavioural adjustments so as to assist fitness offerings customers to undertake behavioural styles which fitness experts convince them to undertake or to keep the behaviour currently engaged in if described to be healthy.

The subtle rivalry of supremacy amongst Health Promotion, Health Literacy and Primary Health Care which are inadvertently intertwine as disciplines feeding into each other in the achievement of a singular goal which is the promotion of public health; cannot have the goal achieved without Health Education at its foundation. This is the crux and take home of this inaugural lecture. I hope I have been able to lay bare that none of these: Health Promotion, Health Literacy and Primary Health Care can exclusively/ conclusively achieve the public health promotion goal, without the input of Health Education as the main driver of their (HP, HL, and PHC) contributions to the achievement of optimum health for all.

MY FOOTPRINTS IN THE SANDS OF KNOWLEDGE

Mr Vice Chancellor Sir, let me at this point share some of my humble contributions to research and scholarship. In the course of my career, my areas of teaching, research and consultancy revolves around the fields of education generally, science education, and health education specifically. I have therefore categorised my contributions under the three fields:

MY CONTRIBUTIONS TOKNOWLEDGE IN THE FIELD OF EDUCATION GENERALLY

My contributions to knowledge under Education Generally is further categorised into the following sub-themes:

Education

One of my award winning publications was a chapter I contributed to The Wiley Handbook of Global Workplace Learning' edited by Vanessa Hammler Kenon and Sunay Vasant Palsole published by WILEY Blackwell as part of Wiley Handbooks in Education (Hamilton-Ekeke, 2019a). The chapter was titled: 'Leadership as Shared Practice: A Means of Democratizing School for its Goals Attainment'. The study examined the leadership styles of school principals in terms of achieving learning goals at the secondary level of education in Bayelsa State, Nigeria. Three research questions were posed. Students and Principals responded to a three-point Likert scale questionnaire. The responses were collated and analyzed using chi-square and the results showed that the democratic leadership style allows teachers, students and non-academic staff to express their views in meetings, and decisions are made collectively. A democratic leadership style is implicitly beneficial to the achievement of school goals because students see themselves as stakeholders and

leadership responsibilities are shared by the community of practice.

The significant/educational implication of the study borders on the fact that education is viewed as the bedrock of any national development and is been generally acclaimed that 'no nation can rise above the quality of its educational system as the quality of its workforce will be determined by the system of education'. The five main goals of Nigeria endorsed as the necessary foundation for the National Policy on Education are the building of:

i. A just and egalitarian society;
ii. A united, strong and self-reliant nation;
iii. A great and dynamic economy and
iv. A land full of bright opportunities for all citizens.

It is true that for these to happen apart from enormous political will needed by government to provide necessary human and material resources; which will lead to the achievement of these goals; an understanding of leadership styles of the principal who is the accounting officer of the school is paramount. It is then concluded that the principal's leadership style or behaviour can improve schools' goals attainment, and that the principal's skills in conflict resolution and instructional leadership are the most

important factors. One limitation of this study is that its findings cannot be generalized as there are other extraneous variables that can influence goal attainment that were not investigated in the study.

Teaching Practice

One of the ways of professionalising education is in the strengthening of the training process of teacher education which could be through a proper supervision of teaching practicum which is part of teacher education training.There are few empirical evidences of the effectiveness of the various teaching practice supervision models. Hamilton-Ekeke and Matthew (2018) carried out a research evaluating clinical supervision model of teaching practice in order to improve on the dearth of empirical evidences of effectiveness of teaching practice supervision model. Clinical supervision is a method of supervision whereby the supervisor is involved with the pre-service-teacher in a close, 'helping, relationship'. Essentially, clinical supervision in education involves a teacher trainee receiving information from a supervisor who has observed the teacher trainee's performance and who serves as both a mirror and a sounding board to enable the teacher trainee critically examine and possibly alter his/her own professional practice. Within the context of such supervision, ideas are

shared and help is given in order to improve the teacher trainee's ability through the analysis of objective data that is collected during the observation.

The scholarly significance of the study lies in the fact that teaching practice is the most vital part of pre-service teacher's career training; this is because it is during this practice that the pre-service teacher applies the methods and theories of education which he/she has learnt. The findings from this study imply that supervisor's not creating rapport with their supervisees before actual supervision could lead to poor performance as a result of nervousness. Creating rapport will help relax the nerves and assessment pressures on the pre-service teacher. Supervisors' utilization of feedback after the actual classroom observation strategy is very important as it ensures that the pre-service teachers are not humiliated and dehumanized, especially in the presence of their students or learners. Indication of supervisors' utilization of pre-observation conference strategy is really a helping process; as it serves as a period of refreshing what the pre-service teacher has learnt about teaching strategies, classroom management, and selection of materials for proper impartation of knowledge to the learners before embarking on the teaching practice exercise. Appropriate feedback on a one-on-one will promote goodwill and build confident in the pre-service teacher.

Extra-curricular activities

Hamilton-Ekeke (2013a) in a conceptual review of undergraduate students' participation in social activities; posited that life in tertiary institution can be very stressful but the most memorable time for every young adult. It is the time when being independent is really important and enjoyable.

Every student has to know when to be able to divide time between everything that is going on around him/her. Be it friends, assignments, extracurricular activities or family. It is the moment that one goes from adolescent to young adult. The social life, love interest, clubs and sports always have their effects on academic performance. These social factors affect academic performance in terms of time demanded and the psychological state they may cause. A student may be influenced to be involved in any of the stated activities. The question is how the student is able to strike a balance between the stressful academic attainment and social activities in the institution. A number of studies reviewed revealed that students participating in extracurricular activities did better academically than students who did not participate, although, this finding from the reviewed literature contradicted an earlier empirical finding of Hamilton-Ekeke (2012a).

Hamilton-Ekeke (2012a) had carried out an empirical research on students' involvement in extra-curricular

activities and their academic performance at the tertiary level using Niger Delta University 400 and 300 level students as case study. The results from the study revealed that there is a significant negative influence of students' involvement in extra-curricular activities on their academic performance, the study also revealed that attitude of students towards extra-circular activities influence their academic performance, while students' value of extra-curricular activities have no influence on their academic performance.

Lastly, the study also found out that choice of extra-curricular activities in school influence students' academic performance. Based on these findings therefore, it was concluded that extra-curricular activities have a detrimental influence on academic performance of students who get over involved in it. Moderation is the key, a little to the right and a little to the left in order to strike a balance is highly advocated. School administrators and managers should regulate the kind of extra-curricular activities allowed to take place on campus.

MY CONTRIBUTIONS TOKNOWLEDGE IN THE FIELD OF SCIENCE EDUCATION

My knowledge contributions to the field of Science Education is further categorised into the following sub-themes:

Improving Achievements in Science Subjects

One of the earliest researches of the inaugural lecturer was a research that compares the efficacy of two teaching methods (field trip and expository methods of teaching) on students' achievement in ecology (Hamilton-Ekeke, 2007). Students exposed to field trip method of teaching outperformed students taught in the classroom using expository method. Taking students out to the natural habitat in the teaching of ecology is better than explaining the concept in the classroom. Field trip method of teaching ecology helps to give the students firsthand experience of the learning which leads to better understanding and retention.

The primary environment of the child is the home and this can exert tremendous impact on students' achievement. The home is the primary agent of education, thus the way the child lives, the food, life style etc are all influence by the home. Hamilton-Ekeke and Dorgu (2014) carried out a study on the 'state of the home and academic performance of secondary school children' and found out that parent/child interactions are forces that can lead to better academic performances.

Teaching Methodology of Science Subjects

Hamilton-Ekeke (2016a) carried out a research on the

comparison of the coverage of science scheme of work in basic secondary education curriculum between public and private schools. Finding from this research shows a better coverage of the scheme of work by private schools. This finding could be down to better supervision by heads which is seen in private establishments as compared to Government establishment.

Hamilton-Ekeke (2013b) reviewed conceptual framework of teachers' competence in relation to students' academic achievement and postulated that, outcome-based indices of teacher competence as in increased test scores and harmonious classroom should not only be the evaluating factors but a competent teacher is that teacher that encourages students to reflect on social reality and empowers them to transform the existing conditions that shape their lives. One outcome indicator of teacher competence which has high psychometric advantage but which is rarely used in evaluating teachers is to ask students what they think about their teacher. Students evaluating their teacher should be encouraged for quality assurance purposes.

Hamilton-Ekeke, Odual, Moses and Ogbodo (2021) investigated the use of computer simulation referred to as 'computer Aided Instruction' (CAI) as against the regular

teaching style referred to as 'Teacher Centered Instruction' (TCI) on student achievement on cell biology. Also due to the current gender imbalance in technology, gender variable was also investigated. The study found the experimental group (CAI) to outperform the control group (TCI) at the post test phase irrespective of both groups been homogeneous at the pre test phase. There was no significant difference in male and female achievement at the post test. Computer aided instructional (CAI) strategy is a better approach to teaching of cell division and was highly recommended.

Learning Styles

Cooperative Learning (CL) is a learning style that refers to small, heterogeneous groups of students working together to achieve a common goal. This involves structuring of classes around small groups that work together in such a way that each group member's success is dependent on the group's success. Students work together to learn and are responsible for their teammates learning as well as their own; whilst Self Regulated Learning (SRL) style belief on what 'knowing' is and how one 'comes to know.' Constructivists believed in individual interpretations of reality, i.e. the knower and the known are interactive and inseparable. SRL recognizes that individuals have some control over their own learning,

across contexts, across relationships, and across situations. Hamilton-Ekeke (2017a) carried out a study to determine how these two learning styles impacts on students' achievement in biology. The study also determined how moderating variables like sex and ability affect students' achievement in biology.In total,the variables investigated in the study are: two learning styles (cooperative and self regulated learning), sex (male and female), ability (high and low), and repeated testing (pre-test and post-test). The major findings of the study included: a significant higher achievement test scores in cooperative learners compared to self regulated learners; a significant higher achievement test scores of all students of varying abilities in cooperative learning group than those in self regulated learning group; a non-significant difference in achievement test scores between the male and female students in the cooperative learning style, and non-significant interaction effect between sex and ability, sex and method, ability and method and among method, sex and ability on achievement. The implication of this in teaching/learning of biology is that teachers should model their instructions to enforce student – student interaction.

Hamilton-Ekeke (2015) also contributed to the literature on improving self-regulated learning style amongst students by opining that there is a consensus that a relatively permanent

change in behaviour results from practice or experience. The purpose of education therefore, is not merely to enable students to accumulate facts. A major goal is that by the time students finish school; they should be able to solve problems that will enable them to be happy and successful in life and to contribute to society. To achieve this goal, students need to develop high order thinking skills through self-regulation and reflection. Self regulated learning is learning that is guided by metacognition (thinking about one's thinking), strategic action (planning, monitoring, and evaluating personal progress against a standard), and motivation to learn. Metacognition was regarded as a valuable term because it emphasised how the 'self' was the agent in establishing learning goals and tactics and how each individual's perception of self and task influenced the quality of learning that ensued.

MY CONTRIBUTIONS TO KNOWLEDGE IN THE FIELD OF HEALTH EDUCATION

Mr Vice Chancellor Sir, the field of health education is a very broad area. A health educator must have sufficient knowledge in all matters relating to human health so that he/she will be able to use appropriate language to empower people to make informed decisions about their health and also make appropriate suggestions or referral when a person needs to have medical attention. The vastness of health

education was expounded by Moronkola (2017) in his inaugural lecture titled 'School Health Programme in Nigeria: A Jewel in Search of True Love' where he cited Udoh (1996) inaugural lecture titled, 'Collage that is Health Education'; submitted that health education content knowledge base is from basic science, social science, basic medical sciences, health sciences, and education as it is designed to help people live more effectively.

Health education is also a variety of education such as: alcohol education, cancer education, AIDS education, family life education, sexually transmitted disease education, consumer health education, safety education, drug education, occupational/industrial health education, heath career education, parent education, sex and reproductive education, ageing and death education, mental and social health education, - all of which and many more individually and collectively represent critical curriculum concerns in health education. At all levels of education (primary, secondary, and tertiary), finding out what the learners should know or what level of knowledge of health education content areas learners know, their attitudes, behaviours among others are very important and these are mainly the focus of my research efforts over the years.

Mr Vice Chancellor Sir, to underscore my point, I will be presenting my research contributions to the field of Health Education under the following themes:

Public Health and Health Promotion through Disease Prevention Measures:

Hamilton-Ekeke,Odibo, Cleopas and Telu (2021) in a study on disease prevention along habit divide operationally defined disease prevention as the measures taken to avoid contact with disease pathogens. The indicators of disease prevention measures investigated in the study included: the knowledge and practice of regular hand washing, brushing of teeth, care of the nails and general body cleaning. Maintaining regular hand washing, brushing of teeth, care of the nails and general body cleanliness formed the dependent variables investigated while the habitats of urban and rural settings are the independent variables of the study.

The study investigated if the habitat divide of urban and rural settings will have influence on students' knowledge and practice of cleanliness as disease prevention measure. The study revealed that urban participants in comparison to rural participants demonstrated a better understanding of the link of cleanliness to disease prevention and were also better in the practice of cleanliness. It was therefore recommended that rural schools should intensify the teaching of personal hygiene as well as provision of facilities that will encourage personal hygiene.

In an article on sustainability of national health promotion policy through personal hygiene, Hamilton-Ekeke (2016b)

stated that the Federal Government of Nigeria health promotion policy contains guidelines to assist in creating positive outcomes such as empowerment for health action and increased community involvement. One such guideline is the improvement of health through personal hygiene. As a result of this declaration, Hamilton-Ekeke (2016b) carried out an empirical study of the level of knowledge of personal hygiene in the Niger Delta region. The research design was a 'pretest-treatment-posttest design'. The treatment was a 'health talk on personal hygiene' which was delivered to students in junior and senior secondary school by the researcher. A Personal Hygiene Test was developed by the researcher for data collection. The baseline measurement (pretest) was low for both urban and rural students which imply that participants do not have adequate knowledge of personal hygiene before the intervention and also that participants were homogenous at the start of the research. The posttest (after the health talk intervention) revealed a significant increased in knowledge of personal hygiene by both urban and rural students. It was then recommended that there should be emphasis of personal hygiene in school health curriculum.

I also lend my voice in the narrative of reducing the prevalence of communicable diseases through health education (Hamilton-Ekeke, 2016c; 2017b; 2017c). I discussed extensively on the spread of communicable

diseases, factors for reducing incidences of communicable diseases in the community, health education teacher as a facilitator of a healthy lifestyle etc.

On knowledge and information on sexually transmitted infections (STIs) among undergraduate (Hamilton-Ekeke & Diepiribo, 2011) posited based on their research findings that students have knowledge (just knowing the acronym STI) but lack knowledge of the different types of STIs and their negative effects in the human body which might be why students get involved in sexual activities and unprotected sex.

Hamilton-Ekeke (2013b) in her article titled combating malaria through malaria education in schools and communities, posited that the improvement in mother's education decreased rural parasitemia of malaria (the number of rural dwellers that had malaria parasite in their blood stream after a microscopy examination). This implies that as mothers gain understanding and increase knowledge; the chances of their children and family having malaria parasites in their blood stream reduced. The corollary of this is that if rural mothers are taught the causes and subsequent prevention of malaria in the form of maintaining a clean surrounding and good environmental sanitation it will go a long way in reducing the amount of mosquitoes locking

around. Educating the community on environmental sanitation i.e. keeping their surroundings clean, emptying every container that would hold water as a result constituting a breeding ground for mosquito larvae, clearing of bushes, ensuring that drainages are clean and empty as first line management of vector-control mechanism will go a long way in combating the scourge of malaria.

Promotion of Good Dietary Habits / Nutrition:

Nutrition education is one of the special interest areas of the Inaugural Lecturer. My PhD research was on healthy eating where I developed a teaching/learning sequence model (Hamilton-Ekeke, 2005) underpinned by social constructivist paradigm which was used to teach the concept of balanced diet and practical skills acquisition of dietary knowledge to Years 6 and 7 pupils and students respectively of Mid-Wales Ceredigion in Britain, United Kingdom (Hamilton-Ekeke, 2016d; Hamilton-Ekeke & Thomas, 2009). The research compared the developed teaching/learning sequence with the 'regular teaching method' in use in the participating schools in the teaching of balanced diet and healthy eating (Hamilton-Ekeke & Thomas, 2008). It was found out that the developed model had significant improvement not only in participants' knowledge of balanced diet (Hamilton-Ekeke & Thomas, 2011) but also improvement in the choice of a healthy meal

and healthy snacks (Hamilton-Ekeke & Thomas, 2007).

Promoting the health of children through adequate diet is a panacea to healthy development and meaningful contributions to society. Schools are ideal settings for the inculcation of the knowledge of adequate diet in children. Schools have the opportunity to teach young people about food and nutrition thereby inculcating the importance of a balanced-diet for future health. Hamilton-Ekeke, Numa, Abali and Telu (2020) lend their voices on the discourse on the promotion of school children dietary habits. The paper was a theoretical review of articles on health-promotion among school children in terms of inculcating knowledge of balanced diet and healthy choice of food.

The paper contributes to the body of knowledge of inculcating healthy eating knowledge to school children by critically analysing empirical studies under three themes - dietary habits of school-aged children; factors influencing children's choice of food; and health-promoting-school, and raising under each theme some pertinent questions begging for answers. In the course of the review, lapses were identified in school-based intervention in the promotion of healthy eating and lifestyle. Health promoting school concept was also reviewed as providing a framework for a whole-school-approach to food and nutrition. The paper

concluded that,in order for school children's dietary habits to be promoted; schools need to be health promoting. A health promoting school is one which enables students, staff, parents and the community it serves to work together towards a healthier life, school and society. The school curriculum, school environment, and ethos; all working in synergy to re-enforce healthy dietary messages making for a whole school approach to food and nutrition is necessary in the promotion of healthy dietary habits in children.

In the narrative of understanding nutrients as a panacea for healthy eating, Hamilton-Ekeke (2012b) argued that understanding nutrition is important to every individual who wishes to make a positive change to his or her diet to suit the lifestyle that is being followed. Improper nutritional habits are responsible for the condition of obesity. Obesity results from the consumption of foods that are high in calories and coupled with inactivity. Obesity has been blamed for rapidly rising instances of heart trouble and other serious health problems. There are plenty of nutrition health articles that are floating around the electronic media which are not substantiated by science or logic. Any nutrition health article that offers miracle solutions to health problems caused by dietary issues should be ignored. Diet modification requires serious patience and perseverance from an individual. When an individual follows good advice from nutrition health

article, he or she will notice gradual improvements in the health of the body. These improvements cannot happen overnight and should therefore not be expected overnight. Nutrition health articles are extremely useful to help guide people towards healthier options of nourishing their bodies. In general; the trend towards fresh, natural ingredients is being encouraged. Natural foods tend to provide the body with a good variety of nutrients without adding too many unnecessary nutrients to the picture. The effectiveness of a nutrition plan is limited in its scope; an individual is better served if he or she follows physical fitness plans (exercise) as well.

I also delved into the discourse on mal-nutrition and under-nutrition as contemporary health challenges in Nigeria (Hamilton-Ekeke, 2014). The several economic reforms in Nigeria since 1986 beginning with the Structural Adjustment Program (SAP) marked the beginning of a considerable decrease in real income and an unparalleled increase in food prices. These various economic reforms; over the years have stimulated reduced food consumption in Nigerian households leading to under-nutrition (reduce quantity of food consumed), particularly that of nutritious foods, (inadequate diet) and an increase in malnutrition (not consuming sufficient or all the nutrients necessary for the proper functioning of the body). The shrinking of funds to

both the educational and health sectors also contributed greatly to the almost complete destruction of school nutrition programmes (school meals) and nutrition oriented health delivery services (hospital meals). Different surveys of nutritional assessment in Nigeria reveal low intakes of protein, energy, iron, calcium, zinc, thiamin, and riboflavin in almost all age groups and in both sexes.

The underlying causes of malnutrition in Nigeria are poverty, inadequate food production, inadequate food intake, ignorance, poor food preservation techniques, improper preparation of foods, food restrictions and taboos, and poor sanitation; while the main cause of under-nutrition is poverty. Economic reforms will likely continue irrespective of the government of the day, so Nigeria really needs sustainable remedies to alleviate under-nutrition. Hamilton-Ekeke (2018a) recommended remedial programs which support food production and preservation; integrating nutrition education in primary health care programs; and in educational curricula as ways forward in curbing malnutrition and under-nutrition.

Health Literacy:

Hamilton-Ekeke (2019) studied the level of health literacy of secondary school students in terms of their knowledge and practice of personal hygiene in the prevention of communicable diseases. Personal hygiene knowledge and

practice was used as indices of health literacy. It was hypothesised that: 'there is no significant relationship between the knowledge of personal hygiene and the application of the knowledge in keeping healthy' but after the investigation, the null hypothesis posited was rejected and the alternate hypothesis of 'there is a significant relationship between the knowledge of personal hygiene and the application of the knowledge in keeping healthy' was accepted. The positive relationship between the two variables (knowledge and application) was collaborated by Begorary, Wharf and McDonald (2009). According to Begoray et al. (2009), health literacy is linked to two groups of factors namely the learning context and personal characteristics of the students. The learning context within the school includes a comprehensive curriculum, qualified professionals, and quality instructional materials while the personal characteristics of the students such as knowledge, motivation and competence to assess, understand, appraise, and apply health information; all of which have the potentials to explain the result under consideration.

Health literacy which encompasses health knowledge and applicationhas gained critical importance in public health (health promotion) as well as medicine (healthcare delivery). Since its introduction in the 1970s, the scientific literature on this subject has grown exponentially.Hamilton-

Ekeke (2017c) joined the conversation on health literacy.Originally, the interest in health literacy was mainly focused on health care services, and had a limited focus on the ability to handle words and numbers in a medical context. Yet over the years the concept gradually expanded in meaning to also account for more complex and interconnected abilities, such as reading and acting upon written health information, communicating needs to health professionals, and understanding health instructions.

So, in addition to the already significant body of literature linking low health literacy to decreased medication adherence, poor knowledge of disease (prevention and control), environmental sanitation, personal hygiene, poor adherence to self-care management, and poor treatment outcomes, there is now an increasing number of studies attesting to the fact that people with lower health literacy are also less likely to engage in health promoting behaviours, to participate in screening programs or to use preventive services. This means that health literacy has both medical and public health perspectives. Hamilton-Ekeke (2017c) examines the latter (public health – health promotion) perspective which accounts for the knowledge and competences that are required to meet the complex demands of modern society with regard to being ill, being at risk for illness, and staying healthy, the paper then concludes by

justifying health literacy as a critical determinant of public health and recommended that factors influencing health literacy should be identified and modified to help improve the health literacy level of the populace. This will invariably improve the health status of the populace with a resultant improvement in the health indices of the country. The paper also called on the Government and Health Care Professionals to acknowledge low health literacy as a problem and, be willing to play their roles in tackling this problem to achieve a healthy Nation. The paper further recommended adequate consumer health education in sensitizing the populace of their rights as consumers.

Hamilton-Ekeke, Sanusi & Moses (2019) carried out an empirical study on health literacy among undergraduate students of Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria, to find out their understanding of health information and whether they use the information to make informed decisions. The result of the study revealed that majority of students (80% n=320) do not fully understand and also 90% n=360 cannot act on information about their health. The University community has a role to play in advancing the principle of the right to accurate and actionable health information. University education is the highest level of learning and not having adequate knowledge of health at this level spells disastrous consequences on

health. It was therefore recommended that healthcare services within the university should simplify and standardize healthcare processes and also make information about health relevant and accessible to all students, basic health information can be introduced as a general (GST) course.

Hamilton-Ekeke, Abam, & Ogobiri (2020) carried out another empirical study on health literacy in the promotion of wellness among secondary school students in Bayelsa State. The study determined the level of health literacy in terms of knowledge of drug abuse as well as its application in making healthy decisions among secondary school students in Ogbia Local Government Area of Bayelsa State. Results from the study revealed a mean score of the knowledge of drug abuse to be 59.28, indicating that participants had fair knowledge of drug abuse but the hypothesis tested revealed no relationship between knowledge and application.

The application of the knowledge learnt about drug and its abuse have the tendency of deterring adolescents from indulging and experimenting with drugs. Promoting health at this stage of life (adolescence) represents a potentially cost-effective approach to enhancing healthy child development, promoting long-term health, and addressing

Teaching of Health Education:

Health education as a subject in the secondary school curriculum has been made a compulsory subject in West African Examination Council (WEAC) and Senior Secondary School (SSCE) examinations for any candidate wanting to study any course in the medical and health allied disciplines in Nigerian tertiary institutions. As a result of this, it became imperative for the teaching of health education in our secondary schools in Bayelsa State; so as to avoid the dearth of professionals in the medical and health allied fields in the near future. In 2019 Tertiary Educational Trust Fund (TETFund) graciously approved a research grant for the survey of the teaching of health education as a secondary school subject in Bayelsa State. The research was judiciously carried out and its findings published in Hamilton-Ekeke, Egumu, & Inengite, (2020).

School Health:

Rugai and Hamilton-Ekeke (2015) lend their voices to the importance of healthful school environment in the enhancement of effective teaching and learning. It is a fact that adequate physical structures in a school not only enhance greatly the efficiency and proficiency of teachers but also facilitate good understanding and comprehension on the part of the learners. Thus a good and healthful school environment enhances effective learning, imperative for the

realisation of educational objectives and, therefore, economic growth and development and social transformation of the society. Hamilton-Ekeke (2015b) further posited that healthful school environment as a subsidiary of the school health programme emphasizes the provision of healthful living environment in the school community that favours effective teaching-learning process.

It concerns itself with the protection and improvement of conditions of the school environment, which influences students in one way or the other, especially the conditions of the building (such as light, air, sanitation, seating arrangement, teacher-pupil, teacher-teacher, pupil-pupil relationship, and lunch or meal programme). On the discourse of school health, it was recommended that schools should have proper building plan approval before commencing, school planners and Government should pay adequate attention and considering future expansion and development before citing any school. Educational policies should not be mated up with political interests, and non-governmental organisations should assist the government to provide adequate structures for effective teaching and learning.

Hamilton-Ekeke (2012c) carried out an empirical qualitative study on the state of school health services in secondary schools in Bayelsa State. This was as a result of the shambles

/ non-existent state of school health services in most primary and secondary schools in the State. Three research questions were posited to guide the research and these are: do the schools carry out routine health observation of the students? Do the schools carry out routine health examination for the students? And are students' health history kept in the school? The instrument for data collection was an interview schedule and the responses analysed with Nvivo software. It was found that health observations like oral hygiene were carried out sparingly while all aspects of health examination (vision, hearing, cervical cancer, weight, and height) investigated were not provided. School health services as a component of school health programme and that of maternal and child health; is a programme of health promotion, protection and conservation which aims at ensuring that during the school period, pupils are well and are able to participate fully in school activities.

Hamilton-Ekeke, Adeleke & Telu (2021) examined how multi-sectoral collaboration promotes in-school children's health. The major thrust of the paper was the description of the nature of health in all policies, school as a setting for health promotion and healthy living, and how to implement multi-sectoral approach in the improvement of in-school children's health. Schools, working with other agencies and professionals from other sectors, became the most effective

and efficient systems for reaching children and youth to provide equitable access and success in schooling, safe and healthy spaces, health and other services and a supportive social environment that engages students, involves parents and serves communities for a healthful living. Integrating health, social and other programmes more deeply into the daily routines of schools and students represents an untapped tool for improving learning. Little wonder that the United Nations, in adopting the 2030 Sustainable Development Goals, has underlined the importance of education and schooling as being central to achieving all of the 17 SDGs goals. Currently I am a member of a global consortium working on how to integrate Federal, State, and Regional Ministries of Health with Federal, State, and Regional Ministries of Education in a synergy for the promotion of learners' health. This global partnership is anchored by School Health Network International, Canada.

School and Safety Education:

Hardly a day goes by without one hearing a news story about an incident that has happened in our schools. These incidents may range from a school bus accident to a student who committed suicide or from a sexual assault to a death in connection with hazing. Schools have the choice to create and maintain safe schools or to return their institutions to safe, secure and effective places of learning. Hamilton-

Ekeke (2017d) joined in the discourse on school safety by critically reviewing 'invitational theory' in safety propounded by William Watson Purkey and Betty Siegel in 1991. The theory stipulated five factors that can affect the appeal of schools, which are: people; places; policies for safety; programmes for safety; and processes in safety.

These five factors are based on four assumptions which gives the theory its aim and direction, which are: trust; respect; optimism; and intentionality as a reaction to the classical educational practices used in schools. A key feature of invitational education is positive self-concept developed through a school environment that leads to more productivity. Little wonder about the remark from the former president of America, President Barrack Obama which he made on the 16th of December, 2012 thus:

> This job of keeping our children safe, and teaching them well, is something we can only do together, with the help of friends and neighbours, the help of a community and the help of a nation. The current level of crime and violence in our schools is unacceptable. The challenges that schools face in developing and maintaining safe, positive climates for learning are complex, but schools must remain safe havens in communities for students and their families. When schools are the centres of their communities, students, parents, and entire neighbourhoods benefit.

> Therefore, all hands must be on deck to ensure that schools are sanctuaries for teaching and learning and free of crime and violence. Violence and trauma in schools and communities can affect students' overall health and wellbeing as well as their educational

Hamilton-Ekeke (2017e) investigated safety precautions in primary school environment in Bayelsa State. The research investigated the availability of safety precautions and the problems associated with safety in schools using some selected primary schools in the State as case study. Consent letters and methodology of selection of participants were sent to schools to solicit willingness to be involved in the study. The population of the study comprises of 631 primary school teachers teaching in the 62 primary schools in a Local Education Authority in Bayelsa State. 210 out of the 631 teachers were randomly selected using the staff nominal roll and selecting every 5th name. The design of the study was a descriptive survey design. Four research questions were posited for the study ranging from security measures, conditions of school buildings, sources of water supply and its availability and the likely safety problems in the participating schools. The instrument for data collection was a questionnaire developed by the researcher and validated by experts in measurement and evaluation. Pearson Product Moment Correlation Coefficient of 0.78 was realised using

test retest method of testing reliability. The findings revealed that there are no security measures in place in the participating primary schools. Most of the school buildings are dilapidated and the classrooms furniture's are death traps. The findings of the study show a gross neglect of safety in the schools. Also there are no regular vitiations by the Ministry of Education to schools to ascertain the nature of safety precautions in the schools. It was recommended that safety measures should be put in place for staff and pupils safety. Such safety measures should be in the form of installation of surveillance cameras in strategic places, parameter fencing, provision of fire fighting equipments, engaging professional security personnel among others.

Hamilton-Ekeke and Ubi (2018) did another empirical study on safety education. This time they investigated children and adolescence awareness/concern about their personal safety especially during emergencies, and how they would respond in such situations. A total of 102 Basic/Primary school pupils and 123 secondary school students responded to the questionnaire which was adapted from Payne & Hahn (2000) personal assessment test. The instrument needed to be adapted to suit the age of the respondents as the original (Payne & Hahn test) was for adult. The adapted instrument was validated by experts as well as pilot tested to determine

its reliability before administering. When both the primary and secondary school data were pooled and analysed, it was found that 20.4% (46) respondents appeared to carefully protect their personal safety; 35.6% (80) adequately protect many aspects of their personal safety; whilst 24% (54) need to consider improving some of their safety-related behaviours and 20% (45) as a matter of urgency must consider improving their safety-related behaviours. Although no one can be completely safe from personal injury or possible random violence and emergencies, there are ways to minimise the risks to one's safety. Every home and school should teach children about safety and protection measures. Safety education should be inculcated early and given its priority place in health education curriculum in both primary and secondary schools.

Drug Abuse:

Hamilton-Ekeke and Sintei (2018) carried out a research on drug abuse among secondary school students in Yenagoa metropolis. The study was guided by the following objectives: to ascertain respondents demographic information; determine the age classification in drug abuse;identify the causes/factors which make students to abuse drugs; find out the effects of drug abuse among school students; determine the common drugs mostly abused;

recommend remedial measures to drug abuse. It was established that most students between ages 13-15 are driven into taking drugs by peer pressure, and the common drugs mostly abused is Tramadol. Poor health condition was the greatest effect of drug abuse among the students. Sensitization through mass media and government agencies was observed to be the possible remedy to drugs abuse among the students. Based on the findings, it was recommended that all education stakeholders (NGO's, including parent, teachers and principals) be involved in curriculum review and reform to address drug abuse related issues among our school students as well as emphasize the teaching of it in all the pyramids of learning (primary, secondary and tertiary levels).

Hamilton-Ekeke and Moses (2019) carried out a study to ascertain if school variable (peer group pressure) and home variables (family history of alcohol consumption, socio-economic status of the family, attitude of parent towards alcohol consumption and cultural norms/festivity) will lead to alcohol consumption among adolescents and proffer solution to the social menace of alcohol consumption among secondary school children. It was found that parents are the major source of alcohol supply for many young Nigerians. Children are often first introduced to alcohol in the family -

home. Parents who drink alcohol are more likely to exhibit permissiveness towards alcohol use by their adolescent children. The study found out that children aged 10-16 years in Yenagoa metropolis of Nigeria, indulged in alcohol consumption regularly and in high quantity which is not good for their health. It is necessary that parents should present themselves as suitable role models in – order to guide their children against anti-social behaviours.

Sex Education:

The concept of sexuality education has been a topical issue and its inclusion in the school curriculum has generated and is still generating a lot of interest in Nigeria. The controversy around sexuality education stems from the fact that most people do not have an accurate understanding of what sexuality education is all about and the benefits that could be derived from it. Hamilton-Ekeke, Dorgu and Abali (2018) sees sexuality education as an education and moral process designed to assist young people in their physical, social, emotional and moral development as they prepare for adulthood, marriage, parenthood and ageing, as well as their social relationship in the socio- cultural context of family and society. Functional education, a major factor in the development process, to be relevant, must help appropriately an individual to understand his/her own

culture and integrate into the other cultures, foreign or local, for the proper enhancement of his/her ways of life. The objective of sexuality education is to promote the proper development of personality, sexual well-being and quality of life of the population as a whole and thus implies that its contents cover all aspects of life in society, namely economic, political, social, legal, health, cultural and spiritual, making sure that both individual and collective interests work in harmony for the goodness of individuals and the society as a whole.

The provision of adequate and comprehensive sexuality education has become increasingly important and necessary in modern times where the standards or norms surrounding sexual relationships have been almost obliterated by increasing modernization and a sexually-charged media atmosphere. Recent controversial issues on human sexuality such as gay rights, same sex marriage, trans-gender, sexual orientation, etc have only succeeded in creating more confusion for young individuals as to what is the right sexual behavior. The responsibility, therefore, lies on parents, teachers, counselors and educators to provide the needed sex education for the moral guidance of adolescents.

There is need for teachers to properly educate or inform students of the reason for the teaching of sex education in

schools so as to eliminate wrong perceptions and or attitudes towards the subject. The relevant government agencies in education must ensure that only professionally trained teachers are deployed in the classrooms to teach sex education so that its purpose will not be defeated. There is the need for the Ministry of Education in conjunction with other stakeholders to constantly review the existing sex education curriculum so that it can be more relevant to students in a fast-changing society.

Government must control the content and language of mainstream secular music and videos, this cannot be overemphasized as its impact on students perception of sex and sex issues is enormous and cannot be undermined.

CONCLUSION AND RECOMMENDATIONS

In conclusion Mr Vice Chancellor Sir, health education of the citizenry is a cheap approach to disease prevention and promotion of wellbeing; and since health education in school settings can be diffused into the community, it then implies a cheap approach to community wellness. On this premise, I therefore recommend and emphasize that health education should be a core subject at all levels of education, and teachers should be adequately trained for it. Health education also should be evidence based and culturally

sensitive for transformation of young people in multi-ethnic Nigeria.

I leave you with some renowned quotes on Education:

- Education is the most powerful weapon which you can use to change the world (Nelson Mandela);
- The beautiful thing about learning is that no one can take it away from you (B.B. King);
- The roots of education are bitter but the fruit is sweet (Aristotle);
- Education is not the learning of facts, but training the mind to think (Albert Einstein);
- Children must be taught how to think, not what to think (Margaret Mead);
- Teachers who love teaching teach children to love learning (Eric Wireko);
- Formal education will make you a living self; education will make you a fortune (Jim Rohn);
- Teachers open the door but you must enter by yourself (Zen Proverb);
- You learn something every day if you pay attention; when you know better, you do better (Maya Angelou);
- Develop a passion for learning, if you do, you will never cease to grow (Anthony J. D'Ageto);
- Learning is a treasure that will follow its owner everywhere (Chinese Proverb);

- Education is the best provision for old age (Aristotle);
- I hear and I forget, I see and I remember, I do and I understand (Confucius);
- Never put off for tomorrow, what you can do today (Thomas Jefferson);
- When you learn, teach; when you get, give (Maya Angelou;
- A good teacher protects his own pupils from his own influence (Bruce Lee);
- I will prepare and someday my chance will come (Abraham Lincoln);
- The whole of science is nothing more than a refinement of every day thinking (Eric Wireko);
- I am indebted to my father for living, but to my teacher for living well (Alexander the Great);
- If you don't know, the thing to do is not to get scared, but to learn (Ayn Rand);
- Well done is better than well said (Benjamin Franklin);
- Education when given the necessary attention it deserves; has the ability to make the difference in one's life (Joy-Telu Hamilton-Ekeke).

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NDU 53RD INAUGURAL LECTURER

JOY-TELU HAMILTON-EKEKE

B.Sc. Ed (Biology) RSUST, Nigeria, M.Ed. (Biology) RSUST, Nigeria
PhD (Health Education) University of Wales, Aberystwyth, United Kingdom
Professor of Health Education
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Niger Delta University, Wilberforce Island, Bayelsa State.

BIODATA AND PROFILE OF PROFESSOR JOY-TELU HAMILTON-EKEKE

Professor Joy-Telu Hamilton Ekeke was born 50 years ago into the family of Late Sergeant Matthew and Mrs.Madylene Telu both of Otuasega Town in Ogbia Local Government Area of Bayelsa.

She started her educational career at Army Children School Elele from 1977 to 1983 and proceeds to the prestigious Government Army Secondary School Elele popularly called GASS Elele from 1983 to 1988. She was very remarkable in her academic performances at GASS making her best graduating student in different subject areas, stream and class of the year 1988.

In 1991, Professor Joy Telu Hamilton Ekeke was admitted into the Rivers State University of Science and Technology for a B.Sc. Ed. Degree Program in Biology Education in the Faculty of Technical and Science Education; where she graduated with Second Class Upper Division in 1995as the best graduating student of the Department. Immediately after her National Youth Service Corps program, Joy enrolled for Masters in Education Degree in this same institution and graduated with CGPA of 4.55 out of 5 points in Science Education. Professor Joy-Telu Hamilton-Ekeke taught biology at Matter Dei High School Imiringi Bayelsa State from 2000 to 2002.

In 2002, Professor Joy was employed in the prestigious Niger Delta University, Wilberforce Island, Bayelsa State as an Assistant Lecturer and sent to the United Kingdom for a PhD degree which she successfully completed in record time. On her returned back to the University, she grew through the ranks of the academic profession to her present rank of Professor of Health Education. Professor Joy-Telu Hamilton-Ekeke served her Department, Faculty and the University in various capacities as follows: Chairperson, Faculty Welfare Committee 2002-2004, Departmental Examination Officer 2010-2014, Secretary Departmental Graduate Programme Committee 2012-2013, Head of Department of Teacher Education 2014-2016, Head of Department of Science Education 2016-2019, Member, Dean's Advisory Committee 2014-2019, Member, Faculty of Education Postgraduate Board 2016-2019, Chairperson, Departmental Postgraduate Board 2021-date, Chairperson, Departmental Accreditation Committee 2021-date, Chairperson, Departmental Student Advisory Committee 2021-date, Chairperson, Departmental Seminar Committee 2021-date.

Professor Joy Ekeke has also served as External Examiner to Bayelsa State School of Health Technology Otuogidi Ogbia 2013-2015, Isaac Jasper Boro College of Education,

Sagbama 2021-date. She served as an external examiner for Doctor of Philosophy in PeriyarUniversity, Salem, India 2016. She is a regular guest speaker on Teaching Practice orientations and a regular resource person in Medical Education workshops and seminars in Medical Schools and Colleges of Health Sciences including West African College of Surgeons.

Professor Joy Telu Hamilton Ekeke is a teacher, scholar, a research fellow and administrator. She had earlier served as - Ag. Head of Department of Teacher Education, from 2014-2016 and Ag. Head of Department of Science Education, from 2016 to 2019 at the Niger Delta University, Wilberforce Island Amassoma. On sabbatical placement in Federal University Otuoke, she further served as Ag. Dean, Faculty of Education (2019-2020).

Professor Joy is widely travelled, locally and internationally. Her travels and commitment to research has seen her attending several international conferences across the globe (International Union of Health Promotion and Education, IUHPE World Conferences on Health in Vancouver Canada in 2007, Switzerland in 2010, Thailand in 2013, Brazil in 2016, and New Zealand in 2019; British Educational Research Association BERA conferences in 2005, 2006,

2007, 2014, 2015 all in the United Kingdom; American Educational Research Association AERA conferences in 2016, 2018, and 2019 all in the United States to mention but a few and national conferences within the country.

Prof Joy Ekeke has to her credit several publications (one hundred and twenty and still counting) which include journal articles, and chapters in edited books in reputable international and national journals; authored published books nationally and internationally; presented over50 conference papers and over 40 public lectures both nationally and internationally. She is a member of the editorial board of several national and international indexed journals; some of which include ScieEdu journals, schlinks journals, British Journal of Education, Society, and Behavioural Science, Federal University of Otuoke Faculty of Education Journal, Health Education Research to mention but a few.

Professor Joy holds several Honours / Distinctions which include but not limited because more are coming:

- **Fellow**, Gender Studies Association of Nigeria (fgsan), 2022
- DOF Care Initiative **Award of Distinction** in recognition for the growth and progress of women

and girls in commemoration of the 2022 International Women's Day Celebration, 2022

- ❖ Ogbia Brotherhood Women Wing **Award of Academic Excellence as 1st Female Professors in Ogbia Kingdom,** 2021
- ❖ Government Army Secondary School Elele, Glorious Class 88 set **Award of Academic Excellence**, 2021
- ❖ Niger Delta University, Faculty of Education **Award for Leadership, Research and Service Delivery**, 2019
- ❖ **British Educational Research Association** International Conference Bursary recipient, 2014
- ❖ **Emerald Literati Network Award for Excellence 2012** – 'Highly Commended Article' in Health Education Journal, Emerald Publishers, United Kingdom.
- ❖ **Best Graduating Science Education Student**, Rivers State University of Science and Technology, Port Harcourt, Nigeria – 1995
- ❖ **State Commendation**, National Youth Service Corp, Nigeria – 1996
- ❖ **Overall Best Academic Female Student**, Government Army Secondary School, Elele, Rivers State, Nigeria – 1988
- ❖ **Best Female Science Student**, Government Army Secondary School, Elele, Rivers State, Nigeria

–1988

PROFESSIONAL MEMBERSHIPS

- Member, International Union of Health Promotion and Education (IUHPE)
- Member, International School Health Network (ISHN) Canada
- Member, British Educational Research Association (BERA) London
- Member, America Educational Research Association (AERA) Washington DC
- Member, Institute of Health Promotion and Education (IHPE) England
- Member, European Centre for Research Training and Development United Kingdom
- Member, Nigerian School Health Association (NSHA)
- Member, Nigerian Association of Health Educators (NAHE)
- Member, Health Education Promotion Research Association of Nigeria (HEPRAN)
- Fellow, Gender Studies Association of Nigeria (FGSAN)

Professor Joy is married to Dr. Hamilton E. Ekeke and the union is blessed with two (2) children, a boy and a girl.

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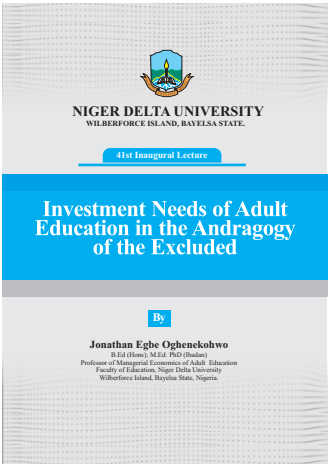

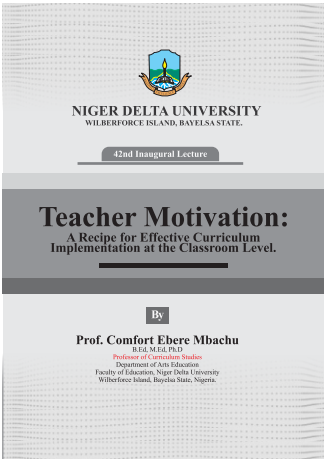

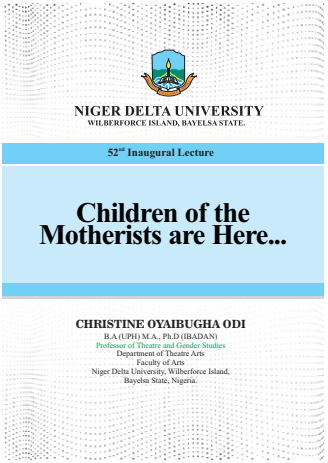

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