



**NILE UNIVERSITY
OF NIGERIA**

HONORIS UNITED UNIVERSITIES

1st Inaugural Lecture

TITLED

**HEALTH MESSAGING:
CURRENCY FOR TODAY, SAVINGS
FOR TOMORROW**



Delivered by

Professor Dr.

**Titilola Titilayo
Obilade**



FIRST (1ST) INAUGURAL LECTURE

HEALTH MESSAGING: CURRENCY FOR TODAY, SAVINGS FOR TOMORROW

By

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Thursday, 18th July, 2024



Motto:

Build your success for a better society.

Vision:

Nile University of Nigeria visualizes itself as becoming a vanguard university that gains the respect of the world through academic excellence by providing the highest quality university education for students from around the globe.

Mission:

To provide students with opportunities of quality university education that will bring out the best in them to make them stand tall through time and ready to face the challenges of a globalized world.

NATIONAL ANTHEM

Nigeria we hail thee
Our own dear native land,
Though tribe and tongue may differ,
In brotherhood, we stand,
Nigerians all, and proud to serve
Our sovereign Motherland.

Our flag shall be a symbol
That truth and justice reign,
In peace or battle honour'd,
And this we count as gain,
To hand on to our children
A banner without stain.

O God of all creation,
Grant this our one request,
Help us to build a nation
Where no man is oppressed,
And so with peace and plenty
Nigeria may be blessed.

DEDICATION

...His eye is on the sparrow.

And I know He watches me... Author: Civilla D. Martin (1905)

His eyes are on Titilola Titilayo Obilade

Are not two sparrows sold for a farthing? and one of them shall not fall on the ground without your Father. But the very hairs of your head are all numbered. Fear ye not therefore, ye are of more value than many sparrows. Matthew 10;29-31KJV

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Deans of the Faculties

Professors and other Members of the Senate

Dean of Student Affairs

Directors

Heads of Department

Academic Staff

Members of Congregation

My family members

Great Students of the Nile University of Nigeria

Members of Alumni

My Lords, Spiritual and Temporal

Esteemed Guests, and Friends

Gentlemen of the Press

Distinguished Ladies and Gentlemen

PREAMBLE

Vice Chancellor Sir, indeed, I am humbly elated and grateful for the opportunity given to be the first inaugural lecturer of this erudite institution and the first female inaugural lecturer. History is being made here today. As I stand here this day, the task before me is herculean because I am the first inaugural speaker and like the first, it would certainly be subjected to very critical analysis. Subsequent speakers will read my lecture as a yard stick. I respectfully stand here and hope my delivery would be exemplary for years to come.

Section 1(3) of the sixth edition of the National Policy on Education (NPE, 2014) states that Nigeria's philosophy of education is based on the following set of beliefs:

- Education is an instrument for national development and social change;
- Education is vital for the promotion of a progressive and united Nigeria;
- Education maximises the creative potentials and skills of the individual for self-fulfillment and general development of the society.

There are different types of inaugural lectures. Although it was not required by the American constitution, George Washington, the first American president gave the first presidential inaugural address on April 30, 1789. Oxford University existed since the 12th Century and my research has shown evidence of inaugural lectures in that institution as far back as 18th and 19th centuries. Charles Oman an historian gave his inaugural lecture, titled, "Study of History" at Oxford University on the 7th February, 1906 (Oman, 1906).

In his lecture, he made references to several Professors from Oxford who had given their inaugural years earlier. One of these Professors was Bishop William Stubbs, a Regius Professor of History who gave his inaugural lecture as far back as 7th February 1867 (Koch, 2010). In Nigeria, the first professorial inaugural lecture on record at the University of Ibadan repository was given by Professor M. O. Oyawoye, a Professor of Geology at the University of Ibadan in 1972 (Oyawoye, 1972). The title of his lecture was Politics and Economics of Mineral Resources in Developing Countries (Oyawoye, 1972). Twenty-four years earlier, the University College Ibadan as it was then called had an inaugural lecture on its foundation day, 17th November, 1948 delivered by Professor Christopherson, a Professor of English (Christopherson, 1948). The title of his lecture was Bilingualism.

According to Afigbo, (1975) and Ogunye (1981), a professorial inaugural lecture can cover three areas,

- i. Where the lecturer is also the occupant of the chair to which the headship of the department is attached, the lecture can concentrate on the development of the department.
- ii. The inaugural lecture can be a discussion of the professor's own work within the general framework of his discipline: that is an analysis of the ideas which have guided his work, the techniques he has applied, the results he has achieved, his plans for the future, etc – in short, an attempt by the professor to locate where he stands in the mainstream of his profession.

- iii. Finally, where neither of the above is attempted for whatever reason, the inaugural lecture could be anything under the sun on which the professor considers that he has something fresh and stimulating to tell his audience.

Mr. Vice Chancellor Sir, in alignment with the National Policy on Education, this evening my treatise shall take the last two objectives of an inaugural as stated above.

The first part shall be an analysis of the theories that have guided my work, the research work done by me and others. The second part shall be the results achieved and the way forward.

INTRODUCTION

Mr. Vice Chancellor Sir, everything has a history. History is so important that twice in the Bible we are admonished not to remove the ancient landmarks that our fathers have set (Proverbs 22:28; Jeremiah 6:16). Nigeria has a history. Recently, we have gone back to our old National anthem.

In 1954, Martin Luther King, Jr. addressing the Vermont Avenue Baptist Church in Washington D.C once said, “We are not makers of history. We are made by history “ (Rosenwald, Goodman, Brownell, 2021). This profound quote by the revolutionary encapsulates the thought that we all have a stake in the history that we leave behind. The past, the present and the future are intertwined by the landmarks we leave. Therefore, I will start with my own history into health messaging.

Going back to my history on health messaging, I have to go to my residency training at the Lagos University Teaching Hospital back in 1998. It was during the period that Nigeria was trying to eradicate polio. Since we are not all public health physicians at this inaugural lecture, I must stop here to distinguish between eradication and elimination of a disease. Polio is a debilitating disease caused by an enterovirus. The virus can enter through the mouth and is present in infected stools for up to two weeks after infection. It can enter the blood stream and infect the central nervous system causing paralysis. It is not all poliovirus infections that result in paralysis. About seventy percent of polio infections are asymptomatic (CDC, 2021). However, these infected persons while not showing any symptoms can continue to spread the virus for up to two weeks after infection through their nasopharyngeal secretions and stools. However, if everyone around is able to have a herd immunity, the chances of spread of the virus reduces. Herd immunity is said to occur when enough people in the community have attained immunity from the infection so the few people that remain uninfected are indirectly protected (Cleveland Clinic, n.d; World Health Organisation [WHO], 2020a).

This is where eradication comes in. Eradication is when the disease agent is no longer present to cause disease to mankind. It is a permanent elimination of the disease globally. Smallpox and Rinderpest are the only two diseases that have been eradicated in the world. Smallpox is the only human disease that has been eradicated. Rinderpest is a viral disease of

ruminants. According to Henderson (2009), 20 million people died from small pox in the 20th Century and in the last 100 years of its existence, small pox killed half a billion people (Henderson, 2009; Henderson, 2011). When a disease has been certified as eradicated, a sample of the agent may still be present in designated laboratories. In the case of small pox, only two laboratories have stock of the virus. These laboratories are in Russia and in the United States of America. Small pox was declared eradicated in December, 1979 (WHO, 2016a).

On the other hand, disease elimination is the complete removal of the disease agent in a specific geographical area. Disease elimination and eradication are achieved only by human intervention usually through vaccination. A disease can be eliminated but not eradicated. An example is malaria. Malaria has been eliminated in certain geographic areas but it needs certain interventions to keep it under control.

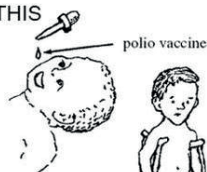
Polio is another preventable disease in respect of which an intervention through mass vaccinations can prevent lifelong disabilities. In 1996, polio was paralysing 75,000 children annually in Africa alone (WHO, 2020b). The Lagos University Teaching Hospital is situated in Idi-Araba, a semi-urban area under the Mushin Local Government. In 1998, while I was in residency training under the headship of Prof. Dorothy Ogunmekan, resident doctors, nurses and Community Health Officers went to Idi-Araba Community where we spoke to the community on the importance of coming out for the oral polio immunization. On a Saturday, we went back to the community and conducted a door-to-door vaccination. This was my first practical experience in health messaging.

Recall, the title of my inaugural lecture, Health Messaging: Currency for Today, Savings for Tomorrow. The cost of the polio vaccine? Free. Well! Free for the recipients. The cost of manufacturing the vaccines, storing it, logistics and getting it to the target communities is the currency of the health message to eradicate polio. The indirect cost for the recipients could be transportation if getting the vaccine at the health centre or time taken away from work or none if the vaccine was brought to their door step. Their indirect cost is also the currency for the health message they received. The cost of polio? A paralysing disease. The cost is a lifetime. A lifetime of uncountable, unimaginable costs (Figure 1).

Figure 1

Illustration of being vaccinated vs consequence of not being vaccinated

DO THIS



AND
PREVENT
THIS



Source: *Blogtalkradio.com*
<https://www.blogtalkradio.com/africanviews/2012/11/11/polio-disease>

The 32nd president of the United States, Franklin D. Roosevelt (FDR) is the only president that was wheelchair bound due to polio. He contracted the virus at the age of 39 and served for four terms as the president from 1933 till 1945 when he died (The Whitehouse, n.d). Recent research has questioned the diagnosis as polio with analysts suggesting he had Guillain Barré Syndrome (Goldman et al., 2003). Whatever the case, both diseases had no cure then and now. Franklin Roosevelt founded the National Foundation for Infantile Paralysis and later it had its name changed to March of Dimes. This organisation was pivotal in the funding of the Salk polio vaccine. It was the vaccine that would be later used in the elimination of polio.

In 2021, the life expectancy at birth in Nigeria was 63.4 years (WHO Data, n.d). It has improved by 9.76 years from what it was in 2000. In 2000, life expectancy at birth in Nigeria was 53.6 years. Imagine if a child gets polio at the age of one year. That child would not be able to reach his or her full potential. The parents or care givers will be spending more on him/her than on the other children. Their resources would be depleted. If we fast forward the time line to 63 years, that is a huge amount of money that would have been spent on the child stricken with polio. The poliovirus can infect any age group but is more common in children not to even mention all the other miscellaneous resources that would have been spent. That money spent could have been saved if the child had been immunized against polio. The poliovirus can infect any age group but is more common in children not to even mention all the other miscellaneous resources that would have been spent. That money spent could have been saved if the child had been immunized against polio.

That currency that we need to spend in order to prevent polio and other preventable diseases is health messaging. And several years into the future we would have amassed a lot of savings if the disease was prevented.

Mr. Vice Chancellor Sir, it was against this kind of backdrop that as a resident doctor in the Department of Community Medicine, Lagos University Teaching Hospital, I had to go to the suburbs around the hospital and engage the inhabitants in the area to come out and be vaccinated. We brought vaccination boxes to the inhabitants to be vaccinated. That was in 1998. The poliovirus has three wild strains and two have been eradicated. In August 2020, Nigeria was declared free from the third wild poliovirus. Afghanistan and Pakistan are still the only countries where the wild poliovirus remains endemic (MMWR, 2024). Ninety-five percent of Africa had to be vaccinated before the Africa Regional Certification Commission of the World Health Organisation gave the declaration (WHO, 2020b).

Mr. Vice Chancellor Sir, the outline for the rest of my lecture is as follows:

- | | | |
|------------------------------------|-------------------------------------|----------------------------------|
| 1. What is Health Messaging? | 5. Visual Literacy | 9. My contributions to knowledge |
| 2. Determinants of Health | 6. Theories behind Health Messaging | 10. Conclusion |
| 3. History of Health Communication | 7. Affordances | 11. Summary |
| 4. Learning Theories | 8. Know the Target Audience | 12. Recommendations |
| | | 13. Acknowledgment |

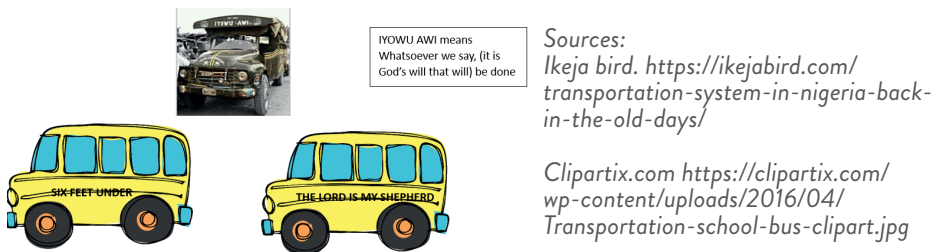
WHAT IS HEALTH MESSAGING?

We cannot talk about health messaging without first talking about communication. I can safely assume that we all have our phones with us and before we came into this hall, we would have checked our phones for messages. We all receive or send messages from our phones and other devices. What we do in health messaging is to send messages to recipients because we want them to change or maintain their health behaviours. What we say in the message is the content. The way we relate that message is the execution and the degree to which the message content persuades us to get a behaviour change is the message persuasiveness (Nans et al., 2021). Each time we hold our phones we are holding a communication device. Each time we send a health message, we are communicating.

Health communication is a multidisciplinary field of study and practice that applies communication evidence, strategy, theory, and creativity to promote behaviors, policies, and practices that advance the health and well-being of people and populations. (SHC, 2017). Health communication is the science and art of using communication to advance the health and well-being of people and populations (Society for Health Communication [SHC], 2017). It was in pursuit of this health messaging that I obtained my doctoral degree in Instructional Design and Technology, the first medical doctor with a specialty in Public Health to do so.

Figure 2

Illustration of different textual labels on vehicles



Above this paragraph, Figure 2 shows three photos of two buses and one truck with some text inscribed on them. One of the yellow buses has “SIX FEET UNDER,” the second yellow bus has THE LORD IS MY SHEPHERD and the truck has IYOWU AWI written on it. Iyowu Awi from Yoruba translates to “Whatsoever we say, it’s God’s will that will be done.” If an intending passenger was to board one of the three vehicles, which one is s/he likely to embark? Another question I could ask is which one of the three vehicles is s/he not going to embus? I can tell you that most people above 25 years old who are familiar with the connotation that six feet under brings will not enter that bus. For those who may not know, six feet is the customary depth of a human grave and six feet under means dead and buried.

Bringing this lecture closer to home on health messaging, if we are trying to dissuade a smoker from smoking, seeing vivid pictures of diseased lungs or mouth cancer on a cigarette

pack that was caused by smoking is more persuasive than just text written in regular font size that smoking kills (See Plate 1). We'll discuss more on these photos when I start to discuss theories of visual literacy.

Plate 1

A photo of the front and back of 3 cigarette packs



Briefly, we have looked at text, images and now we would look at the spoken language in delivering health messages. In the Yoruba culture and many African cultures, children's names have meanings and soon after a child is born, the mother assumes a new name by being called the mother of the named child. As an example, if the child is named Ireti, the mother would be called Iya Ireti. If the child is named Adewale, the mother could be called Iya Ade or Iya Wale. Africans love to give names that glorify their beliefs or circumstances surrounding the pregnancy or birth of the child and Yorubas are not an exception. If the parents feel a great victory has been won over the devil, they can name the child Esupofu which translates to the devil is a loser. Esu means devil and Pofu means loser. If the mother of the child should now be called Iya Esu which means mother of the devil or Iya Pofu meaning mother of a loser, the mother being called by such appellations will take offence and rightly so. The two names Iya Esu and Iya Pofu are not acceptable because no one wants to be called the mother of a loser or a devil. Herein, lies the message, sometimes what we intend to say may not be interpreted the way we want it to. We need to know our target audience or intended population. We will devote more time to target populations later in this lecture.

According to the World Health Organisation, health is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1946). The global watch dog's definition of health since 1946 had largely gone unchallenged until when a group of researchers from Netherlands sought to expand on the meaning of health because of the increase in chronic diseases (Huber et al., 2011). The call to tweak the definition of health is increasing because people are living longer and with aging comes chronic diseases. Similarly, a person born with a disability can attain the highest level of education and maintain a job but under the current definition, is that person considered to be in complete health? Be that as it may, the WHO definition of health has remained unchanged in more than seven decades.

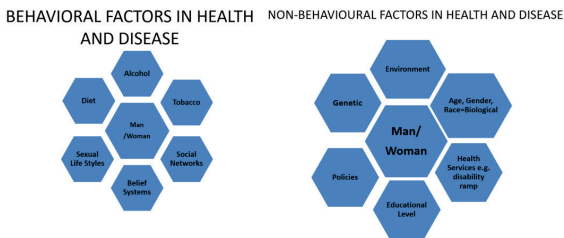
This group of researchers feel health should be more of an adaptation to these changes.

These changes could be social, physical or emotional. The contention with WHO's definition is with the use of the word complete. Can anyone ever be in a complete state of physical, mental and social well-being? A 20-year-old professional footballer in a premier league today may not be able to play for as many hours in another 20 years' from now. A 60-year-old person with aches and pains s/he didn't have at 40 by that definition means the two people in these examples are not in a complete state of health. Our health sometimes depends on environmental factors and our adaptability to these factors. So, what are those factors that determine health?

DETERMINANTS OF HEALTH

Figure 3

Illustration of behavioural and non-behavioural factors in health and disease.



Now that we have looked at the definition of health and the inadequacies in the definition, let us look at what determines health as shown in Figure 3. Broadly speaking, there are two determinants of health: behavioral and non-behavioral. The behavioral determinants are based on what we do, the choices that we make. These choices can be based on our belief system. The choice of diet, sexual lifestyles and the social networks we keep all determine our health. If someone's father that was a farmer in the village, ate pounded yam everyday lived to be 100 years, and the son that lives a sedentary lifestyle and believes he can eat pounded yam every day and live to be a 100 may find out that he's developed cardiovascular issues even before 50 years of age. Similarly, if a young boy or girl does not sleep at night for several days because s/he was up all-night gaming to reach a higher level with some other virtual gamers, such a person can develop mental and cardiovascular health problems.

By social networks I do not mean the virtual friends we have on social media where one person can have one million friends that s/he has never met. They can be "friended" or "unfriended" in an instant and the followership that was one million today can drop by 60,000 in a few minutes and in 24 hours the friends can become 100,000. The social networks in behavioral determinants are the physical contacts you meet. If at all we want to meet virtually like during the COVID-19 lock down, the virtual friends would mostly be people that you have met physically.

Nowadays, we have affluent members of the society that send their children abroad. Many of these children get married and settle overseas, leaving their parents in Nigeria. At the end of the day, these parents are left alone in Nigeria while many of their children and

grandchildren are abroad. Yes, you may say, “but the parents can join them abroad.” By so doing you are automatically cutting them off from their primordial social networks from Nigeria, not to talk of caregiving and end-of-life issues.

What we see is that when one of these parents become deceased, problems of caregiving set in but it doesn’t have to be so where the parent has social networks within the neighbourhood, like volunteering in religious bodies, championing a school event, a sports or health event or being a board member of a school or an orphanage (Figure 4). In any case, keeping active through this connectivity of socializing has been found to be beneficial (Huxhold et al., 2014; Gagliardi et al., 2020; Jenssen et al., 2022). Older adults are faced with loneliness, mobility issues, depression and health challenges which can all be compounded when there is little or no person connectivity (Hwang et al., 2019).

Figure 4

Illustration of older adults socializing



Source. iStock photos.

<https://www.istockphoto.com/vector/dancing-conga-gm673580662-123531677>

On the other hand, non-behavioral determinants of health are not based on our choices. We are placed in those circumstances. Usually, we don’t have a choice in such instances. As an example, if someone is born with a sickle cell disease, the disease is hereditary. Although with aggressive health messaging targeted at intending couples, persons carrying the sickle cell gene may be convinced to seek partners that are compatible. Non-behavioral determinants include gender, race, tribe, environment, government policies, educational level, genetics and age. Gender determines the type of disease an individual would have. A genetically born female cannot have prostate cancer because she does not have prostates. Twin brothers separated at birth; one grows up in a town without schools, electricity or pipe borne water while the other goes to a school in a town with interconnected roads, internet and pipe borne water and studies up to tertiary level. It is the circumstances of their environment that will determine their health.

If you’re in a country where the government policy is that if you have more than one child, you will pay a heavy fine, people living in such countries would not have many children. If our social services were able to cater for the unemployed people that are willing to work, the elderly, people with disabilities, the trajectories of the lives of those affected would be positively different. On race, in some countries if you’re of a particular skin colour, you might be profiled by the police while driving a flashy car. And on tribalism, we can see that if you don’t speak the language or you’re not from the same tribe as the head of the

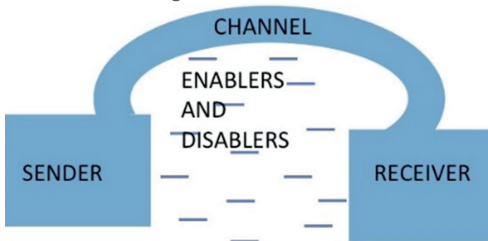
organisation, chances of you getting a lucrative appointment might be slim even if on merit you are qualified or more than qualified for the position.

HISTORY OF HEALTH COMMUNICATION

We have looked at health messaging and determinants of health. Let us now move to the history of health communication.

Figure 5

An Illustrative figure of the communication channel.



Source. Obilade, Titilola Make Me See It, Pedagogical Strategies in Visual Literacy, 2015 1st Edition

In communication, there must be a sender, a receiver, and a channel of communication as shown in Figure 5. Around the environment of the sender and receiver, we have enablers and disablers. Enablers are the factors that ease the understanding of the message while disablers distort the comprehension of the message. Enabling and disabling factors could be the culture of both the sender and receiver, the content of the message, the noise in the channel of communication, the prior knowledge or experiences of the receiver and sender. The environment in which the communication is taking place is another factor. The sender can only effectively communicate after the receiver understands the message. This interpretation occurs under certain conditions that both the sender and receiver share.

Let us take a look at the book of Leviticus from the Bible where a person with leprosy was to announce his coming by shouting, “Unclean, unclean.” Why was this so? Leprosy is a contagious disease and had no cure in those days. It is a highly stigmatized disease affecting the nerves, skin, eyes and limbs. “And the leper in whom the plague is, his clothes shall be rent, and his head bare, and he shall put a covering upon his upper lip, and shall cry, Unclean, unclean” (Leviticus 13:45 KJV). The persons with leprosy were actually delivering health messages by shouting, “Unclean, unclean”. Passersby hearing the words “Unclean, unclean” were persuaded to stay away from the path of the callers.

This bacterial disease can severely affect the larynx, resulting in loss of voice. In medieval Europe, persons with leprosy must announce their coming by the clanging of bells and clappers to attract the attention of passersby. Therefore, the ding-dong of the bell was to warn off uninfected people by avoiding contact. By so doing, the disease was kept under control. This was social distancing but not called by that name at the time.

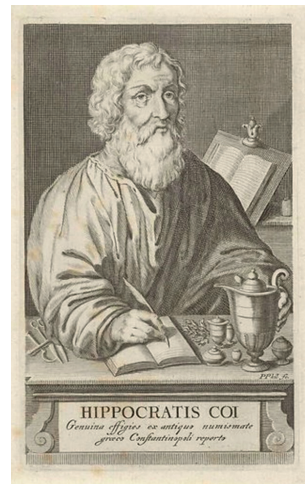
Leprosy was not the only disease that was mentioned in the thirteenth chapter of Leviticus.

Similarly, a house infected with a fungus was to be burnt down. The presence of mold or mildew in a house can lead to different types of respiratory infections. In the thirteenth chapter of Leviticus, mold or mildew in houses was referred to as leprosy and the priest who also doubled as the medical officer of health was to determine if a house had mold. A house infected was termed unclean and to be burnt down. The act of burning down houses infected with mold is one of the preventive methods we have today although methods like replacement of mouldy parts would be another viable option. Burning of houses might be the only option back then but we have improved methods of dealing with fungal infections today using fungicides. This was akin to roofs that were made of asbestos being torn down because of their association with asbestosis an infection of the lungs. Asbestos is a fibrous material used in construction and textile industries. However, prolonged exposure to the material causes cancer of the lungs and other health issues. It has been banned in some 50 countries but its use in some developed countries is regulated (Frank & Joshi, 2014).

The Greek physician Hippocrates of Cos (born 460 BC, died 377 BC) shown in Plate 2 is known as the father of Western medicine. He postulated that the human body was made up of four humors or liquids and that the imbalance in any of these four liquids caused sickness. These four humors were blood, black bile, yellow bile and phlegm. Out of all these four humors, blood was the only one that the physicians of those days could have access too. Therefore, in the V-IV centuries BC, the *modus operandi* to cure a sick person was to let his/her blood out, known as blood-letting. Of course, a lot of people who went through the bloodletting procedures died from infection. Health messages in the Hippocratic times were compiled in a text known as the Hippocratic Corpus. Four elements; air, water, fire and earth were considered to be the cause of diseases. This was known as the humoral theory. By 1500 BC, mouldy bread and medicinal soils were being used in treating infections (Hutchings et al., 2019). The germ theory that gave rise to the development of antibiotic did not take place until 1910. Salvarsan became the first synthetic antibiotic drug that was introduced in 1910. It was used in the treatment of syphilis but its administration posed a challenge as the arsenic based compound interacted with oxygen when it was exposed to air. It also caused severe side effects including death (Wechselmann, 1911). Before its introduction, there were different suggestions as to the cause of disease including bad air. Penicillin was discovered in 1928 and replaced the use of Salvarsan in the treatment of syphilis (Hutchings et al., 2019). Brunel, (1951) a professor of microbiology wrote in the *Journal of the History of Medicine and Allied Sciences* on a paper he delivered in 1946, that he had read a 1925 article on the use of molds to destroy bacteria which was before the discovery of penicillin in 1928. Penicillin had fewer side effects. However, by 1940, Abraham and Chain (1940) reported an enzyme that was resistant to penicillin. That enzyme; penicillinase was produced by a

Plate 2

Painting of Hippocrates



strain of *Escherichia coli* (*E. coli*) (Lobanovska & Pilla, 2017; Hutchings et al., 2019). Most *E. coli* bacteria are found in the intestines of healthy people but some strains of the bacteria can make you sick causing vomiting and stooling. People can get infected with *E. coli* from contaminated food or water.

In 2015, the World Health Organisation (WHO, 2016b) alerted its member states that we were dealing with antimicrobial resistance (AMR). Let’s fast forward to 2024 and we are still dealing with antibiotic resistance. As shown in Figure 6, from 1940 till now we have been dealing with antimicrobial resistance. What this means is that more and more antibiotics that are being developed are not able to combat infections. So, if we are falling ill and the antibiotics are not working, what better options do we have? We need to do all we can to prevent diseases so that we can avoid the dilemma of anti-microbial resistance.

As innocuous as antimicrobial resistance may seem, it is a huge problem costing millions of dollars. Once again, recall the title of this lecture. Health Messaging: Currency for Today, Savings for Tomorrow. Here is what WHO had to say about AMR:

In addition to death and disability, AMR has significant economic costs. The World Bank estimates that AMR could result in US\$ 1 trillion additional healthcare costs by 2050, and US\$ 1 trillion to US\$ 3.4 trillion gross domestic product (GDP) losses per year by 2030 (WHO, 2023).

Whether we are preventing diseases or treating diseases, a health message must go out there to inform, to persuade and to change behaviour towards making the right choices for the receiver’s own health and for the receiver’s pocket. By pocket, I mean finances.

Figure 6

Illustrative diagram showing the timeline of development of antibiotics to antibiotic resistance.

1500BC mouldy bread and medicinal soil used to treat infections	1910 Salvarsan discovered	1928 Penicillin discovered	1940 Resistance to Penicillin Reported	1940-Present Antimicrobial Resistant
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If we are to design a successful health message that is to the targeted audience, we must be mindful of the text, words, images, sounds, language and the articulation of the message. The strategies we use in communicating our health message may make the intended target audience to trust or distrust us. Therefore, if we really want to get our health message across, we must apply the right strategies. Before we can begin to use these strategies, we must apply certain theories of message design. In instructional message design these theories are collectively known as learning theories.

LEARNING THEORIES

If we want people to change their health behaviours, then it is imperative that we know how best they learn. Educationists have divided the way humans learn into three broad theories.

- i. Behaviourism
- ii. Cognitivism
- iii. Constructivism

Proponents of behaviourism believe that by observing repeated actions in the environment, a behaviour is learned. As an example, if you want to teach people how to wash their hands or how to wear a mask correctly, it is best you actually demonstrate the action to them through repeated steps in videos, dramas or whatever strategy that works for that environment. Behaviourists assert that learning is by a stimuli-response approach that is eventually embedded in the mind. This stimulus response behaviour can be either strengthened or weakened depending on a negative or positive reinforcement (Driscoll, 2000; Driscoll 2005, Driscoll 2013; Driscoll & Burner, 2022). If they wash their hands correctly, they can be rewarded with a positive remark to reinforce the good behaviour.

Cognitivism looks inwards at the internal processing of information in the brain in order to learn (Figures 7a and b). If you want to educate a group of teachers on anti-bullying strategies, one of the ways in which you can achieve that is by getting them to identify signs of bullying and the steps to take thereafter. Once this happens, they must have stored information in their long-term memory on what bullying is all about.

Piaget, (1971) was one of the pioneers of constructivism. Constructivism does not focus entirely on external factors in the environment or internal processes of information, rather educational psychologists of the constructive views believe that the learner applies a prior knowledge that s/he is able to build on (Dong et al., 2021). This prior knowledge is based on experiences. The constructivist view is that the intended audience or learner is intrinsically motivated (Cooper, 1993) and constructs his/her learning from information from previous experiences. An example, women in an antenatal clinic can have moderated discussions on different health scenarios and what their responses would be, each bringing her prior knowledge and experiences into the discussion.

Cognitive Information Processing

Cognitive theorists believe that for us to learn, the human brain processes the information in a way similar to a computer (Driscoll, 2000). Information from the environment goes through the sensory memory, the short-term memory and then long-term memory as shown in Figure 7a. The long- term memory has the largest capacity to store things in our memory and the sensory memory has the least capacity as shown in Figure 7b. However, the transmission of information does not move as seamlessly as it is depicted in Figure 7a. Anything can disrupt the information from even getting the attention of the sensory memory to excessive cognitive load for the working memory to not being able to recall information from the long-term memory. At the sensory memory stage if our attention

is not on the information being given, we would not be able to transmit the information to the working memory for further processing (Figure 8). Information that is passed to the working memory can be effectively passed to the long-term memory provided we store the information in an organized way. Imagine you are at a luncheon and you're being introduced to seven people. As soon as you leave the last person, you are not likely to recall the name of the first three people you were introduced to.

Figure 7a

A figurative illustration of the cognitive information process.

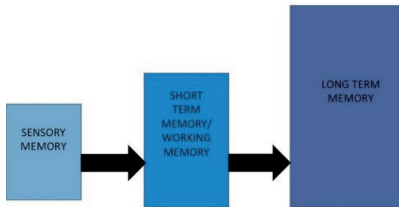
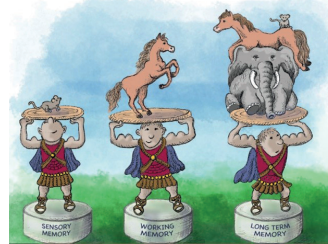


Figure 7b

A figurative illustration of the cognitive information process



However, if you associate the name with a face or pay attention to certain details associated with that person, perhaps you would be able to remember all the names (Figure 9). There are many methods that help us encode information before we store it in our long-term memory (Obilade, 2015a; Obilade 2015b; Obilade, 2016a). Examples include concepts, mnemonics, chunking, imagery and hierarchies. When we are designing our health message, we must organize the information in a way that will make it easy for the targeted audience to understand. Attaching images to the information that we are presenting makes recall easier. It is this association of imagery and text that brings in the concept of visual literacy (Obilade, 2016a).

Figure 8

Illustration of what happens if we pay attention to the information being shared.

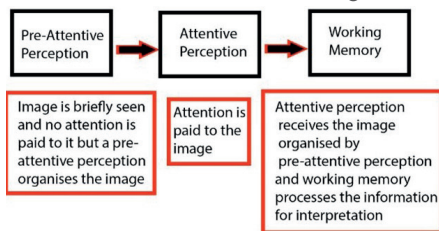


Figure 9

Illustration of what happens if we pay attention to the information being shared.



Chunking allows us to break down large pieces of information into smaller pieces. Think of the unchunked information as a large piece of fish that can't be eaten whole but must be sliced into smaller pieces. You can also imagine it as a large Subway® sandwich that has been divided into several small pieces (Plates 3a & 3b). If the information is so big like a set of 11 digits as an example, 08012347218 is a phone number we may not recall easily but if we break the number into chunks like into groups of 3 and 4 digits, 0801- 234- 7218 would be easier to recall (Figure 10).

Plate 3a

Unchunked Subway® Sandwich.



Plate 3b

Chunked Subway® Sandwiches



Figure 10

The same set of telephone digits; not chunked versus chunked

08012347218 vs 0801-234-7218

VISUAL LITERACY

We have all been purveyors of visual literacy. In today's digital world when we send a text message, a chat or an email that we approve of we can put a smiley face or emojis as they are called (Plate 4). The fact that emojis have come to stay was emphasized in 2010 when they were introduced into the universal lexicon known as Unicode (Lai et al., 2021). Unicode is an international encoding system that allows for the processing of characters like texts, diacritics, Chinese characters, Arabic characters and punctuation marks. Emojis are now part of the Unicode lexicon. A standard for the curation of emojis is set by representatives from Google, Apple, Meta (formerly known as Facebook) and other tech organisations. A formal process takes place before a new emoji, proposed by the public can be added.

Visual literacy is not new. Through the eyes of Egyptian drawings, the Terracotta Army of the First Emperor of China, our own Benin bronzes recently returned to Nigeria and many other artifacts, we are able to catch a glimpse of what life was in centuries past (Figure 11& Plate 5). We were able to read stories from the images. Although we live in a digital age and children have access to smart devices from even before they can talk, research has shown that being tech savvy does not translate to being visually literate (Brumberger, 2011; Wood et al. 2012; Obilade, 2016a). Studies have also shown that the use of graphic displays in text books increased comprehension (Fransecky and Debes, 1972). Social media is a mammoth business. When we take a look at the four largest tech industries popularly referred to as the big four (Amazon, Meta (Facebook), Google and Microsoft), they cannot be ignored

in our everyday lives. Google and Facebook are nouns but they are now used as transitive verbs (Figures 12a and 12b).

Figure 11

Hand drawing of the Terracotta Army of the First Emperor of China.



Plate 4

Embroidered Smiley Face



There are many definitions of visual literacy going as far back as 1972 (Fransecky & Debes, 1972; Braden & Hortin, 1982; Richard & Anderson, 2003; Metros, 2008; Felten, 2008). The common threads in the many definitions emphasize that visual literacy is a skill that shows competencies in mastering and interpreting visual images. Since visual literacy is seen as a skill, then it can be honed from as early as kindergarten through the sixth year in secondary school.

While alphanumeric literacy is taught from nursery through secondary school, visual literacy is not. By alphanumeric literacy, I mean learning to read, write and think using alphabets and numbers. We cannot overlook the opportunities with visual literacy because we are faced with a world of technology. I wish to suggest that our children should not just be masters at alphanumeric literacy but become proficient in visual literacy. Recall the images of the cigarette packs under the section on health messaging. Mere words like, “Smoking is dangerous to health” is not as captivating like the vivid images of diseases caused by cigarette smoking. The visuals or images proves to be more persuasive than just words.

Figure 12a

The word Google used as a transitive verb, to google.

I googled for photos in the public domain.

Figure 12b

The word Facebook used as a transitive verb, to Facebook.

The grandma facebooked her grandchildren.

Plate 5

Benin bronzes at a Museum of Archaeology and Anthropology, Cambridge.



Adapted from wiki Commons

https://commons.wikimedia.org/wiki/File:Display_of_Benin_bronzes_at_Museum_of_Archaeology_%26_Anthropology,_Cambridge,_March_2022.jpg

AFFORDANCES

Mr. Vice Chancellor Sir, so far in this lecture, I have talked about those things under our control and beyond our power that determine our health. We have looked at enablers and disablers of communication. I delved into the history of health messaging going as far back into the time of Hippocrates, the Biblical times and the development of the germ theory and antibiotic resistance. We have examined how we store information from short term to long term memory and the theories behind health messaging.

We are now going to look at affordances. I first came across the word, affordance in the second year of my doctoral degree at Virginia Polytechnic Institute and State University (Virginia Tech). Affordance is a feature that lets the user use what the product is intended for (Gibson, 1977, 1979; 2011; Kaptelin & Nardi, 2012).

I was sitting for my prelims. I was interested in designing messages that would be intuitive and user friendly. Emeritus Professor John Burton, my Ph.D supervisor prompted me to look at the works of Norman a psychologist and engineer (2002). Norman had written a book on design. I came across a teapot that had both the handle and the spout on the same side. Obviously, there was no way to use the teapot (Plate 6). In a way when we design our health messages, the content might be good and well-intended but the user cannot understand it so the message just like the teapot is of no use.

We can spend millions designing a health message but once we don't get it right the target audience cannot make use of it. It doesn't stop there. If the intended audience do not get the message, then they don't get to change their behaviour and so the disease remains. Sometimes the health message is not just to change behaviour. It could be a health message on a medication leaflet. If the message on the medication leaflet is not understood, the intended recipient might take the medication the wrong way and complications including fatalities might arise (Obilade, 2016a). Therefore, it is so important that we get the health messaging right. Again, back to my inaugural lecture title, Health Messaging; Currency for Today, Savings for Tomorrow. Whatever resource we spend in getting the health message right, we would have saved much more resources for our tomorrow. The resources could be human, financial, time, materials or logistics.

In designing health messages, affordances are the cues in the message that make it easier for comprehension. The cues can be in the texts, images, font, color, language, layout of the message, drama, radio jingle, health education leaflet, bill board sign, posters, web pages and much more. We should identify and emphasize the key points in the message.

If a young graduate wants to apply for a job, s/he would not type the application letter using Comic Sans MS (Figures 13a and 13b). Rather, Times New Romans or Ariel will be used. Comic Sans MS is more suited for events like writing an invitation to a children's party because the typeface appears casual. Indeed, it was introduced as a speech bubble in Microsoft 3D Movie Maker but ended as one of the default fonts in Microsoft Windows 95 (Fedewa, 2021).

Plate 6

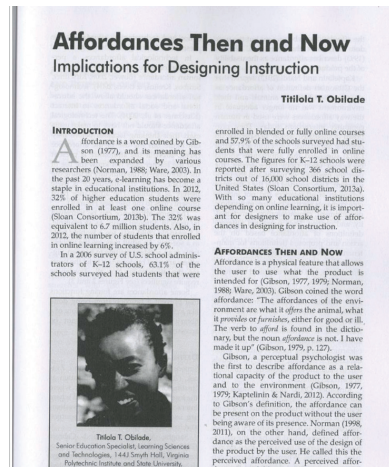
Front cover of the book, *The design of everyday things*.



Source: Norman, D. A. (2002). *The design of everyday things*. New York: Basic Books.

Plate 7

Front page of lecturer's article on affordance.



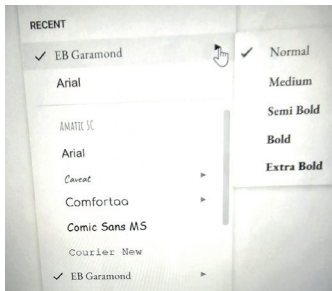
Source: Obilade, T. T. (2015a). *Affordances Then and Now: Implications for Designing Instruction*. *Distance Learning*, 12(3) 2015.

Imagine this entire inaugural lecture without pictures or figures. Trust me, the comprehension of my message to you today will not be at par with what it is now if the entire lecture was bland without pictures. It would be like watching a movie without any sound. The letters and the words we use to write our messages carry a personality of their own. Although letters and words may just appear as functional pieces to carry the intended message, the shape, legibility, depth, color, layout, contrast and general appearance of these letters can evoke emotions and associations to the reader (Obilade, 2016a; Huang & Liu, 2020). Therefore, it is pertinent to know the personalities that these letters evoke. When the letters communicate the right emotions, then the targeted audience is a step closer to changing his/her behaviour.

Do typefaces have their own personalities? Yes. They do (Obilade, 2016a; Piovesan et al., 2023). In a study carried out by Piovesan et al, (2023) participants interviewed, asserted that Times New Romans exhibited professionalism, politeness and was perceived as less cheerful. Similarly, Obilade’s (2016a) review of literature showed that typefaces could be rated as plain, beautiful, casual, friendly and serious. Literature has also shown that using the wrong typeface can result in medication errors (Obilade, 2016b; Chubaty et al., 2019). Typefaces are the design features in the letters, numbers, punctuation and other characters in the written text (Figures 14 and 15). These characters can be the sans serif, serif, glyphs, weight of the letters, height difference between the lowercase and uppercase letters and style (Obilade, 2016a).

Plate 8

The difference between typefaces and fonts.



Note: EB Garamond is the typeface. Normal, Medium, Semi Bold, Bold, Extra Bold are the fonts.

The fonts are variations in the height, contrasts and weights of the typeface. When there is variation in a typeface that it becomes italicized, bold, semi bold, condensed or normal, those variations are the fonts. A lot of times, typefaces and fonts are used interchangeably (Plate 8).

Figure 13a

Sample job application written in Comic Sans MS.

Dear Sir,

JOB APPLICATION

I wish to apply for the job advertised in your company. I have a graduate degree...

Sincerely,

Figure 13b

Sample job application written in Times New Roman.

Dear Sir,

JOB APPLICATION

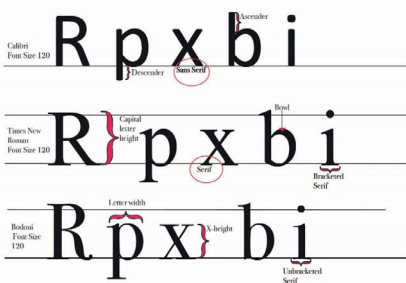
I wish to apply for the job advertised in your company. I have a graduate degree...

Sincerely,

In choosing the typeface for our health messaging, we must not compromise the legibility for aesthetics. When writing numbers using the typeface Wide Latin, the legibility decreases as the font size increases. However, using Verdana, legibility is not compromised by increasing the font size (Figure 16). Serifs are the strokes on the characters (Figure 17). Corporations like Coca Cola, Google and many more have mastered the emotive benefits of typefaces and use it to sell their products (Singla et al., 2021).

Over the years, Google has rebranded its brand from a serif font to a sans serif (Figure 18). Then why can't we as health practitioners maximise the personalities of different typefaces to get our message across? Our health message is a product. We should be able to make use of typefaces to attract our intended audience the way corporations have done.

Figure 14
Characteristics of Typefaces.



Adapted from Obilade, Titilola Make Me See It, Pedagogical Strategies in Visual Literacy, 2015 1st Edition

Figure 15
High and low contrast.



The A in Baskerville has a high contrast because of the ratio of thick to thin strokes
The A in Cambria has a low contrast because of the ratio of thick to thin strokes

Adapted from Obilade, Titilola Make Me See It, Pedagogical Strategies in Visual Literacy, 2015 1st Edition

Figure 16
Comparing two typefaces: Wide Latin and Verdana.

Wide Latin	Verdana
89 89 89 89	89 89 89 89
38 38 38 38 38 38 38 38	38 38 38 38 38 38 38

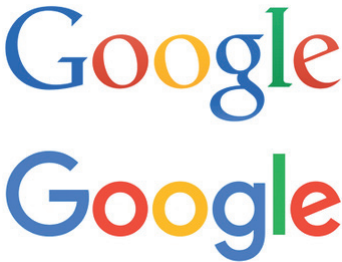
Figure 17
 Sans Serif Typeface like Calibri does not have a stroke.

Sans Serif Typeface	Serif Typeface
calibri	Times New Roman

Adapted from Obilade, Titilola Make Me See It, Pedagogical Strategies in Visual Literacy, 2015 1st Edition

Note. In Wide Latin, with increase in font size, legibility of 89 and 38 decreases but remains uncompromised using Verdana typeface.

Figure 18
 The previous Google logo with a serif font and the new logo in multicolor with sans serif font.



Adapted from Google home page, n.d.

KNOW THE TARGET AUDIENCE

Mr. Vice Chancellor Sir, all the affordances and theories behind our health message must be in sync with our intended audience. Health messages are never one size fits all. Our objective will determine who our target audience is. The target audience is the segment of the community that we intend to reach. We must have a stated, well-defined objective that encapsulates our intended audience. They determine the design of the message. We must understand the culture, admit to any biases or stereotypes we might have. The readability of the message must be on point. If the message is written with a grade 12 level of understanding and your intended listeners have a grade three reading level then the message will be lost. The age of the audience is important. If they are in a geriatric age group, then you must be mindful of the size of the text you are going to use. If you normally print using a font size of 12, you might need to print at a font size of 14 or higher for the older age group or for an audience with visual challenges. The text must be legible. The photos must be clear. If there are people with hearing impairments, then your message must make provision for these groups of people. It would be erroneous to assume that their cognition is any different from those that do not have any disabilities (Obilade, 2015b; Obilade, 2015c).

Not all health messages must be on paper. It could be on web pages if the audience have

technological affordances for the internet. If after you have followed all the guidelines, your message must be tested on a small group to identify any nuances or biases that the health practitioner might have overlooked before embarking on the actual delivery. Now, it's not enough to deliver the message and then leave never to come back. You must maintain an awareness of the message to maintain sustainability. When the message is sustained and the behaviour is changed, then you can say your aims and objectives have been achieved. Overtime, the message and message delivery can change especially when you observe that one or two of your objectives have been achieved. Your objectives might also be realigned in line with objectives already achieved. You also want to change your message or renew your message because you want to avoid user-fatigue. When the audience has become inundated with your message that they begin to ignore it, then it could be that they are tired of the message, you need to re-strategise. You must recall the three major ways of learning, behaviourism, cognitivism and constructivism. Any of these three ways can be used or even combined in the delivery of your message. Also note that in selecting your target audience, you must be security conscious. Before reaching out to your target audience, it is important to observe and take cognizance of the vehicular and pedestrian exits and the entry points to and out of that community. The chief or head of the community must be informed of your intended activities. Not informing the stakeholders might cause your intentions to be misinterpreted and seen as unfriendly which must be avoided at all cost. And you must have your security detail for you and your team whenever you're entering the community. At every point in your health message every member of the team must be carried along. You must also have a point person from the community through which you engage in communications and feedback. Below, I would share photos of activities with some of our target audiences in our most recent community engagements (Plates 9-29). These communities are Guyidna, Angwarogo and Kushingoro.

Plate 9

Professor Obilade and the point person greeting the chief in the local language by hailing him, "Zaki" while repeating the gesture



Plate 10

The Angwarogo Chief/Zaki accepting the gift from Nile University of Nigeria.



Plate 11

The Guyidna village Chief/Zaki accepting the gift from Nile University of Nigeria.



Plate 12

Professor Obilade donating flowers from her residential garden to the Principal Upper Redeemed Vessel School, Angwarogo village.



Plate 13

Professor Obilade helping the Principal of Upper Redeemed Vessel School, Angwarogo village to sort the donated flowers.



Plate 14

Library book shelves and books donated to St. Timothy Nursery and Primary School, Guyidna by 300 Level Students in Community Health Practical II.



Plate 15

Lunch box shelves donated to Upper Room Redeemed Vessels Nursery and Primary School by 200 Level Students in Community Health Practical I.



Plate 16

Community Health Practical I students carrying lunch shelves donated to Upper Redeemed Vessel Primary School Angwarogo.



Plate 17

Primary School children from Guyidna and Angwarogo villages responding to a health message by Professor Obilade.



Plate 18

Group picture with the Primary School children from Guyidna and Angwarogo villages



Plate 19

Primary School children from Guyidna and Angwarogo villages at a focus group discussion.



Plate 20

Students from St. Timothy Nursery and Primary School, Guyidna listening to the health message by Professor Obilade when they came to Nile University of Nigeria.



Plate 21

Students from St. Timothy Nursery and Primary School, Guyidna listening to Professor Obilade delivering a health message at their school.



Plate 22

Students from 200 Level Community Health Practical I and Staff and students from St Timothy Primary School in a group photograph.



Plate 23

200 Level Students in Community Health Practical I Primary School children from Guyidna village School delivering a health message.



Plate 24

Students from 200 Level Community Health Practical I donated benches to St Timothy Primary School.



Plate 25

Professor Obilade and a Staff of Kushingoro Primary Health Care Centre answering questions after a health education talk to mothers that brought their babies for immunization.



Plate 26

Health message on cleaning your teeth.



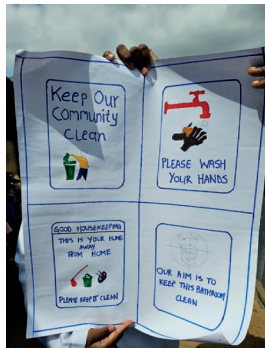
Plate 27

Health message on personal hygiene.

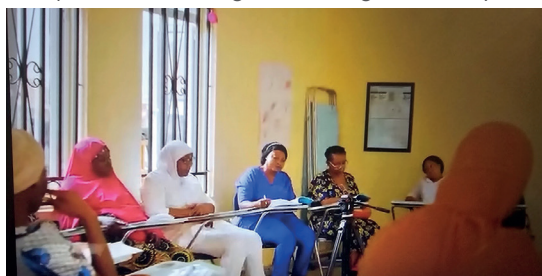


Plate 28

Health message on keeping our environment clean.

**Plate 29**

Professor Obilade at a Focus Group Discussion on Gender-Based Violence with antenatal care patients attending the Kushingoro Primary Health Care.



MY CONTRIBUTIONS TO KNOWLEDGE

Mr. Vice Chancellor Sir, Professor Wole Soyinka the first African Nobel Laureate said, “A tiger does not proclaim his tigritude, he pounces” (Feuser, 1988). Metaphorically speaking, from here on, I will proclaim and pounce on my contributions to knowledge. I would do it in two parts; my contribution to global health in the first part and the second part shall be on my contributions to the communities and universities that I have taught in. I would be highlighting only a few of my contributions.

My Contributions to Global Health

My contribution to the global health was during the time of the Ebola crisis and more recently the COVID-19 crisis. During the Ebola quagmire, I wrote a 19-page article on how stigmatization of the Ebola Virus Disease (EVD) was causing an exponential increase in the spread of the disease (Obilade, 2015d). I also wrote a book chapter on the political economy of Ebola in Africa (Obilade, 2016c) although the open access journal article is more accessible than the book chapter. As at the time, only a handful of articles had been written about the disease stigmatization but hundreds had been written about the

epidemiology of the disease (Obilade, 2015d). Further, I wrote other articles on taking ownership in the management of EBV (Obilade, 2015e; Obilade, 2015f). As of 24th of June, 2024, on the Centers for Disease Control and Prevention CDC.gov website, a search of “Obilade” reveals that three of the CDC publications have cited my article on stigmatization of EVD (Rico et al, 2016).

The CDC is the national health watch dog for the United States of America. Further, my article on stigmatization of EVD has been cited in three non- English- speaking journals (Sow, 2016; Vonitania, 2017; Lasavia, 2020). The three non-English speaking journals were in Italian, French and Indonesian languages. A number of articles in high impact journals have cited my article. Google Scholar shows it has been cited 35 times as of 5th July, 2024.

My next contribution to global health is in the area of COVID-19. Apart from writing regularly about COVID-19 in The Guardian Newspaper, mostly on the back page, I also gave multiple live interviews on Channels TV (Channels TV, 2020; Channels TV, 2021a-d). From an observation point of view, most of my suggestions during the TV interviews and articles in The Guardian newspaper were adopted at different times by the task force on COVID-19. All the interviews I had on Channels TV were conducted live. I was once interviewed live for 30 minutes on Arise TV Morning Show on the use of chloroquine (Arise News, 2020). My response to the two journalists who interviewed me at the time was used as a soundbite by Arise TV for several months. I spoke in support of the use of Chloroquine. Outside health, based on my degree in International Law and Diplomacy, I have been interviewed by Channels TV on the analysis of International Politics between Ukraine and Russia and I have been called upon as an international affairs analyst at different times (Channels TV, 2022).

In the newspapers, I wrote on the use of chloroquine, the choice of vaccine for Nigeria, social distancing, conspiracy theories, production of vaccines in Nigeria, school resumption during COVID-19, pandemic treaty, women leaders and global health, racial tensions, Joe Biden and global health, The Pope and global health, primary health care, poverty from within and other related topics (Obilade, 2020a-k; Obilade, 2021a-h; Obilade, 2024a-b).

My Contributions to the Communities and Universities

In this section, I would write about my contributions to the universities and communities together. I would start with Lagos because I got three of my degrees from there; my medical degree, my Master’s in Public Health and my Master’s in International Law and Diplomacy.

I did a quantitative study on the employability, stigmatization and sociodemographic distribution of persons living with Human Immunodeficiency Virus (HIV) (Obilade, 2015g) while at the Lagos University Teaching Hospital outpatient clinic. The oldest respondent in the study was a 75-year-old male and the youngest was a 16-year-old female. The results of the study showed that a large number; 13 out of 97 people interviewed (13.4 %) had to move to another location after their diagnosis was known by neighbours and 13 out of 99 people (13.4%) lost their jobs as soon as their HIV status was known. The study was done

in 2006 and things have not improved much since then although drugs for HIV are now free. In my study at the time, people living with HIV spent about a third of their income on medication (Obilade, 2015g). Today, some employers still request the HIV status of new employees and are denied job opportunities if the HIV test result comes back as positive.

Another contribution I made was in the area of social medicine. In particular, persons living with disabilities; the visually-impaired and the hearing-impaired. The two studies were conducted in Lagos at the oldest schools for the hearing and visually-impaired. I got interested in these areas because both schools were primary schools but the ages of the students attending were not only primary school age but were young adults above 18 years. Another reason that attracted me to the study was that whenever I came across these children, people from the main stream society treated them like they were less intelligent. The two separate studies I did showed that their cognition was the same as those in the main stream. In the study from the Wesley School for those with hearing impairments, the qualitative study used a standardised non-verbal intelligence test. The results showed that there was no difference in the cognition between the hearing-impaired and the non-hearing impaired. A lot of the children from the hearing-impaired school started attending school late because the parents were not aware of a school or when they did, the cost of transportation was too high. Twenty-two (15.6%) students in Wesley School were aged between 16 and 20 years at their last birthday at the time of the study.

For Pacelli School for the blind and visually-impaired, the qualitative test I did was on their knowledge on the cause and treatment options for malaria. Similar to the socio-demographic findings in Wesley School, there were more older students in Pacelli School than the main stream school. Seventeen (17%) students from Pacelli School were aged between 16-20 years. Students from Pacelli had a better knowledge on the cause of malaria than children from the main stream school perhaps because they would have had contact with health personnel because of their disability.

Almost all the students from Pacelli School 92 (92%) knew that malaria was caused by mosquitoes and only 75 (45.7%) of the respondents from the main stream school knew that malaria was caused by mosquitoes. This was a statistically significant difference. Similar to the Wesley School, the reasons given for having much older students in Pacelli were because the parents or caregivers were not aware of the school or they felt nothing could be done for a child with blindness. For those who were aware, they had other challenges like getting space in the school as schools for the blind are not ubiquitous. As it happens, schools for those with disabilities are usually frequently visited during festive periods and become less frequent at non-festive periods. They should be visited all the time. The notion that nothing could be done for a child that is blind should also be corrected. This is another area for health messaging.

I also did a qualitative study on knowledge, attitude and practice of exclusive breast feeding amongst mothers in two semi-urban areas near a baby-friendly designated hospital initiative in Lagos State. The main findings showed that there were significant differences

in the correct knowledge on colostrum. Colostrum is the first milk that comes when breast feeding commences after child birth. Variables like age, professional level, educational level, number of children, marital status, ethnicity and religion were examined. Out of all the socio demographic variables examined, educational level of the mother and the mother's professional level were the two variables that were most frequently statistically significant for knowledge, attitude and practice questions. Mothers who had more children also had the correct knowledge. The wrong beliefs cut across all educational levels. Health messaging is a key factor to remedy some of these wrong beliefs.

I have made contributions outside the area of medicine. I have written two book chapters on human computer interactions (Obilade, 2016d; Obilade, 2016e). One of the book chapters was on implications of similarities in instructional design, learner interface design and user interface design in designing a user-friendly online module. Simply put, the 21-page book chapter examined the best options that would fit the design of an online lesson plan. The second book chapter was the development of a framework that is now being used in evaluation. This was a 25-page chapter on how best to evaluate an online module. Although I designed the framework for human-computer interaction, I have used it severally in the course of my developing curricula in several courses and lectures at Nile University of Nigeria.

Another contribution I made while in Lagos was on the cusps of polio eradication which I talked about in my introduction. On Saturday mornings, staff of the department of Community Medicine under the headship of Prof. Dorothy Ogunmekan had to gather and encourage residents living in Idi-Araba, a sub urban area very close to the teaching hospital to come out with their children for mass vaccination with the oral polio vaccine (OPV). Little drops of water make a mighty ocean. The efforts myself and other members of the Department of Community Medicine as well as all those in the health sector put in at that time, from 1998 to 2000 paid off when in August 2020, the African Regional Certification Commission for Polio eradication (ARCC) declared that Africa was now free of the wild poliovirus (WHO, 2020b).

I have written two textbooks (Obilade, 2016a; Obilade, 2017). Make me see it; pedagogical strategies in visual literacy is a book of 12 chapters, 338 pages. I got most of the graphics I used in this inaugural from this book. The book highlights different topics on visual literacy using more than 100 graphic images. My second book is on nutrition. It is Dr. Obilade's Nigerian recipe cookbook; Africa's simple dishes. In more than 200 colored photos, the book illustrates how to make healthy Nigerian meals using the behavioural and cognitive theories of learning. Nowadays, we have cook books written by non-Nigerians describing how to make Nigerian cuisine. It was especially written for those who might not have been brought up in Nigeria but would like to eat a Nigerian meal.

Further, another contribution that I would highlight is that of volunteering at the geriatric clinic. As residents in training, we used to go to a primary health care centre not close to the hospital. At a point in time, some resident doctors felt we should stop our volunteerism

there. Under the headship of Professor Muriel Oyediran, I proffered a lot of reasons why we should maintain volunteering at the clinic. The geriatric clinic stayed on after my arguments.

For this inaugural, I could only recall about 24 medical students' dissertations that I supervised while in the Department of Community Medicine of the College of Medicine, University of Lagos. Several of these dissertations got awarded first, second or third place positions at different times. The dissertations covered topics like glaucoma, hypertension, sickle cell disorders, motor cycle taxi drivers, alcoholism, pelvic inflammatory disease, female sterilization, stroke and many more.

In Lagos, I volunteered at the Pacelli School for the Blind and Partially Sighted and Wesley School for the Deaf. Wesley School used the term "deaf" in their appellation at that time and not "hearing challenged" as we use today. It's now simply called Wesley School. Even though I was the one volunteering in these two schools, the pupils and staff from these schools enriched my life abundantly. It brings home the words of John Bunyan; He that is down needs fear no fall, he that is low no pride, he that is humble ever shall have God to be his guide. It also brings to mind a quote from John Milton; Gratitude bestows reverence, allowing us to encounter everyday epiphanies, those transcendent moments of awe that change forever how we experience life and the world.

In University of Lagos, Institute of Child Health and Primary Care, I was the head of the Maternal and Child Health unit from 2005-2006. I did both administrative and clinical work. While I was the head of Maternal and Child Health unit, the pass rate of final year medical students at the first attempt at their examinations improved from about fifty percent to ninety percent. The final year medical students at University of Lagos gave me an award of appreciation in 2006. A lot of the medical students who graduated back then have become lecturers, pediatric surgeons, internists, gynaecologists and all specialties in medicine. Most of the doctors are now working overseas. But not all are practicing as doctors. Some are in the entertainment industry. One of my former students recently started his doctoral program in global health from a University in United States of America (USA). He is a lecturer at his primary university and has the Fellowship from West African College of Physicians in the Department of Community Medicine. I have also mentored non- medical doctors who are now pursuing their doctoral degrees abroad. Many students from Nile and past graduates have told me that they would be pursuing a career in public health and would like to obtain a Master's in Public Health based on the inspiration they got from me.

At Virginia Tech, I was on the campus the day a student killed 32 people before killing himself. I was not too far from where the nightmare occurred. It was April 16 2007. From that experience, I have learnt a lot about communication. It is not an experience that one forgets. I learnt that just talking to someone you may not necessarily know, by saying a simple hello goes a long way in mental health. I became an advocate for mental health. I also volunteered about seven hours towards the election of the first Black president in

America. In a small way I contributed to history! My son and I helped sift through forms and took calls from an office space that was downtown from the Virginia Tech Campus. I also volunteered at the Adult Day Care Centre at Virginia Tech where adults dropped off their parents in the morning and picked them in the evening. While the senior citizens were there, we tried to engage them in regular activities.

At Nile University of Nigeria, I have already shown some of my work under the section on knowing your target audience. I have supervised undergraduate and postgraduate students here. The group of medical students that I supervised from our first set of medical students, got the highest score in their dissertation projects. I developed the curricula for several courses including Community Health Practical I and Community Health Practical II, Public Health Information and Communication, Health Management and Policy, Occupational Health and Occupational Health and Safety. I have been teaching all these courses. Two of my postgraduate students said they got a job using notes from my lecture. In fact, one said he practically gave the interviewer everything from my notes and he got the job! I also helped design and set up the Public Health Museum and the Public Health Laboratory. To facilitate our medical students' visits to the markets and abattoirs, I designed and developed checklists for both visits.

At Nile University of Nigeria, I have successfully supervised 14 medical students' dissertations. The topics covered in these dissertations include depression, quality of life, male infertility and COVID-19. The project in one of the final year medical students' dissertations that I supervised has recently been submitted for acceptance in a peer reviewed journal with an impact factor of 2.7. I have been an internal examiner for the Master's in Public Health Programme from 2023 to the present. In community engagements, I have been able to form a relationship with two villages that are very close to the Nile University of Nigeria campus; Angwarogo and Guyidna. Our BSc. Public Health students can conduct their community practicals there. In addition, the two primary schools in the two villages, St Timothy Nursery and Primary School, Guyidna and Upper Room Redeemed Vessels Nursery and Primary School, Angwarogo are also engaging with our students. This is apart from the Kushingoro Primary Health Care Centre site where our medical students use.

At the Kushingoro Primary Health Care Centre, I pioneered active participation of our medical students delivering health education talks to the antenatal care patients and to parents that brought their children for immunization. I provided the medical students with as many health education topics as were necessary for the number of students present. For the laboratory sessions for our medical students, I provided engaging lesson plans in all of our laboratory sessions for every module from 200 to 300 levels and from 500 to 600 levels.

With assistance from the graphic unit at the University, I have been able to produce three videos from Kushingoro. The length of these videos' ranges from about 30 to 60 minutes. They are on immunization, focus group discussions and interviews from different departments at Kushingoro. My idea for the videos was proactive because due to logistics, we may not always be able to take our students to these sites. With the videos, the students

do not totally miss the site experience.

Last year, forty-one students and eight teachers from Angwarogo and Guyidna came to our school and had a focus group discussion and a questionnaire session with our 200 level students in Community Health Practical II. The primary school students and their teachers got token gifts from the Nile University of Nigeria. Our students were able to use the focus group discussion and questionnaire session as part of their examinations. In addition, two consecutive sets of our students donated benches, library books and shelves. Last year the medical students gave me an award as the most engaging lecturer (Plate 30).

One particular contribution I would like to highlight is that I have introduced student corporate social responsibility to our students in the department of Community Health. Before now, it was usual for students to enter into a community get their data, write their exams and forget about the community. But my approach is since the students are using the community to learn, in their own way, they should give back whatever they can. Similarly, I have encouraged our MPH students to give back to the communities they collect their data from. I have found this method to be engaging and rewarding for both the students and the community. Many students have given feedback on how the experiences have truly enriched their lives. Some have developed interest in pursuing a postgraduate in public health. These are just a few highlights from my contribution to Nile.

Plate 30

An award of the most engaging teaching method presented to me by the first set of medical student graduates from Nile University of Nigeria.



CONCLUSION

In conclusion, I can say that health messaging saves money. It is not money that can be physically seen as Naira notes or kobo, (if we still use coins) but all the money, time, energy and other resources that we spend on health messaging today is money well-spent. It is money that is securing our future and our tomorrow. Once we get health messaging right and our target audience is able to inculcate healthy behaviours, then we have become even richer than today.

SUMMARY

In summary, I have highlighted the history of health messaging as far back as the time of Hippocrates, the Bible and before the era of antibiotics. The resistance to antibiotics started as far back as the 1940's and is a million-dollar challenge today as attested to by WHO (WHO, 2016b).

The value of knowing the way we learn in behaviourist, cognitivist and constructivist views will tailor how we design our health messages. In whatever media we choose to design our messages we would need a better understanding of images and typefaces. We should always use affordances in our design of health messages to make comprehension of our messages easier.

Visual literacy is the window to all that we can read into our graphics. I went into a little depth emphasizing that typefaces have personalities and we should use these to our advantage in our message design.

Corporations that rely on marketing to make huge profits have mastered the art of maximizing the personalities in these typefaces. It would not do us any harm if we too can get the best out of our typefaces.

I now went into knowing our target audience and how that will help us to tailor our health message design. I showcased a lot of my engagements with the students and village communities that we interacted with. A few of my contributions at home in Nigeria and abroad in the USA were highlighted.

RECOMMENDATIONS

1. Visual literacy should be incorporated in the education curriculum from nursery school level. This should be easily achieved, since children now have access to smart phones from infancy. Without a deliberate effort to teach the subject, being able to navigate a smart phone does not necessarily translate to visual literacy.
2. The information leaflets accompanying medications should be written in different grade levels, not just at grade 12 reading level. At best it should be written at a level that all can understand. Therefore, the information leaflets can just be written at grade 3 reading level or at an accessible language for all. This is a recommendation for our government.
3. Still on medication leaflets, drugs manufactured in Nigeria should come with alternatives like braille or some form of assistive technology for those who are visually-impaired.
4. One of my studies also highlighted that we do not have enough schools for the visually-impaired. The government needs to provide more schools for the visually-impaired. Perhaps with progressive developments, students with visual and hearing disabilities will be able to learn side by side and there would not be a need for separate schools for those with such disabilities.
5. On the pupils that were hearing-impaired, a lot of them would have benefited from

cochlear implants but the prices were and are still quite inaccessible to most of the people that need it. Awareness on the use of cochlear implants for the hearing-impaired and provision of the cochlear implants at economically accessible prices would improve their quality of life.

6. My study has shown that the cognition between the hearing-impaired and the non-hearing-impaired is the same. Yet, very few secondary and tertiary institutions have opportunities of learning and employment for the hearing-impaired. Our governments and private corporations should support the creation of assistive technologies and other resources in secondary and tertiary institutions to help the hearing-impaired.
7. In community engagements that have mutual benefits for both students and community, the students should be taught on corporate social responsibility or what I would call students' corporate social responsibility. I say this because many times, students go into a community, learn, leave and another set comes. The community can get easily fatigued if they are asked the same thing every year and they are not seeing even a token in return. When a community becomes user-fatigued then our students that are expected to come at another time are at risk of losing that community and their learning experience.
8. I volunteered at an Adult Day Care Centre run by Virginia Tech. At a time when many adult children are leaving their aging parents, the government and private organisations should look at providing Adult Day Care Centres in Nigeria. They are few and far in between. We do not have enough in Abuja and in Nigeria as a whole.
9. The government should conduct a preventive health messaging to parents who are in Nigeria but whose children are abroad. They should provide safe, community engagements for them, particularly for older adults who need care. The government should also target the adult children that have left their parents to go abroad in these messages.
10. While I was at Virginia Tech, the importance of mental health awareness was brought home to me when one of the students shot down 32 people before ending his life. Schools at all levels from the primary school level especially at the tertiary level (when many students are leaving home for the first time) should communicate health messages on mental health awareness.
11. The government can ramp up on the awareness on mental health in our schools from primary through tertiary education.
12. Government should do more to stop the discrimination of people living with HIV from getting jobs. It is discriminatory when employers ask employees to get HIV tested and are denied jobs if the tests come out positive.
13. The government should ramp up public health campaigns to raise awareness about sickle cell disorder encouraging early testing, detection, prevention and proper management. In addition, I would like the government to make genotyping mandatory like birth certificates have been required before children can be registered for school.
14. Our government can correct myths about breast milk through sustainable health messaging at every point of contact adult males and females come in contact with a health personnel.

PROFILE OF PROFESSOR TITILOLA TITILAYO OBI LADE

Prof. Titilola Titilayo Obilade was born more than five decades ago at the Lagos University Teaching Hospital (LUTH) where she would later practice as a medical doctor. She is the third child and second daughter of Emeritus Professor Akintunde Olusegun Obilade of Abeokuta North, Ogun State and Late Mrs. Adesola Margaret Obilade (nee Sobanjo) of Ijebu-Iperu, Ogun State.

Perhaps, because she would later become an academic, she attended the reception (now called Nursery), primary and secondary schools of the University of Lagos, while living on the residential part of the University of Lagos. She graduated from International School, University of Lagos with seven distinctions including A-one distinction in Additional Mathematics. At the time she had the highest UTME score and got to study medicine on merit at the University of Lagos from 1987 till 1994. Her set should have graduated in 1993 but due to the political situation, the school was closed for almost nine months. In her final year she had a credit in Maternal and Child Health.

She did her house job at the Lagos University Teaching Hospital where she had been born. She did her National Youth Service Corps training at the now defunct Nigeria Airways. During her housemanship, fellow house officers were cautious of interning in any department she had been because she always set the bar and consultants would expect such a high bar from incoming house officers! She was informally voted to be the most hard-working house officer by resident doctors. After her National Youth Service, she worked at Private Hospitals during which she learned that salaries may not come at the end of every month or even at the end of two months.

In 1997, she wrote the entrance exam for a Master's in Public Health, passed and was admitted to study for her MPH at the University of Lagos. She also started her residency training program under the tutelage of Professors Dorothy Ogunmekan and Muriel Oyediran. Between 1997 and 2004 she worked at the Lagos University Teaching Hospital where she successively passed her junior and senior residency professional examinations in Public Health.

Shortly after she passed her part two fellowship examination of the National Postgraduate Medical College in the Faculty of Public Health, there was a vacancy in the Maternal and Child Health (MCH) unit of the Institute of Child Health and Primary Health Care. She became the head of the MCH unit and under her headship, the pass rate of the final year medical students increased to around ninety percent. She obtained her Master's in International Law and Diplomacy from the Faculty of Law, University of Lagos. There, she was taught by Professor Alaba Ogunsanwo, Dr. Coker of the Faculty of Arts. Professor Akin Oyeboode of Faculty of Law expounded the intricacies of carrot and stick diplomacy in his class.

In 2006, she traveled to Virginia Tech, USA from where she got a Graduate Certificate degree in Gerontology and a Ph.D in Instructional Design and Technology. While in the USA, at various times she worked as a graduate assistant, a research assistant, a substitute teacher and a Senior Education Specialist. She worked at Colleges of Engineering, Education and Liberal Arts. She also worked on a National Science Foundation sponsored project on design and evaluation of lesson plans incorporating 3D Printing for Science, Technology, Engineering and Mathematic (STEM) subjects in secondary schools.

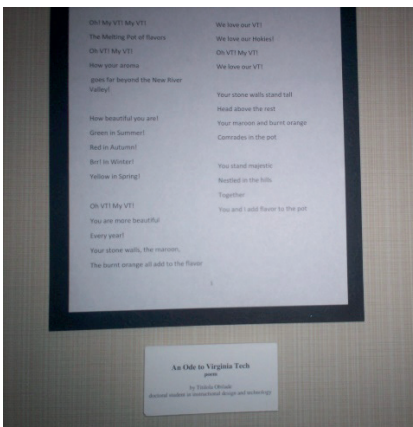
In 2018, her journey to Nile University of Nigeria started when she began to teach the first set of medical students at the institution. The first set of students have since graduated, completed housemanship and are waiting to start the National Youth Service Corps (NYSC) program. She has been the longest serving medical doctor in the Department of Community Medicine.

Professor Obilade has served her department in different capacities already mentioned under her contributions to knowledge section of this inaugural lecture. She has published extensively and widely. She has been a reviewer of both local and international journals. She has written two textbooks; one on health messaging and the other on Nutrition (Obilade 2016a; 2017). She also has four book chapters to her credit. Two of the book chapters are not strictly for medicine. These two book chapters could be used across disciplines. One was on Human Computer Interaction and the other was on designing a user-friendly online module (Obilade, 2016d; Obilade 2016e)

Professor Obilade has been engaged in numerous community activities at home and abroad. Professor Obilade has several passions. She paints on canvas with acrylic. She knits, felts, does embroidery and sculpting art. While at Virginia Tech, a lot of her artwork went on display and won first and second prizes at different times (Plate 31). She has also written many poems and these too have won awards. Years ago, she was a yellow belt in Taekwondo. She loves gardening. In her spare time, she enjoys walking in her comfort sneakers and listening to Pavarotti and Andrea Bocelli.

Plate 31

Some of Professor Obilade's Artwork; Painting, sewing, embroidering, sculpting, knitting and felting.





ACKNOWLEDGEMENT

Mr. Vice Chancellor Sir, distinguished guests, staff and students, I wish to use this opportunity to thank God who alone has brought me this far and all the people that He has brought my way to be my help and support at the time and place I needed them most.

In the Yoruba language we say, “Eni ba d’upe ore ano, a ri imii gba.”

This means, “Whoever gives thanks for the good thing done to him or her yesterday surely has another good thing coming.”

And, if I do not acknowledge those who have helped me this far, I would be like, “Eni taa se loore ti’o dupe, bi olosa k’oni leru lo ni.” In English it means, “He who we helped but fails to say ‘thank you’ is just like a thief who had stolen our property.”

I do not want to be a thief. I want to be able to get more and to remember and appreciate all those who have helped me thus far so that I can get even higher by the Grace of God.

I wish to thank my late mother, Mrs. Adesola Obilade (nee Sobanjo). I learnt hospitality from my mum. Growing up, we lived in a High-Rise building of 16 flats. Whenever my mother travelled abroad, she would make sure she bought something for all the remaining 15 families and also for some neighbours in the next High-Rise building. I also wish to thank my dad, Emeritus Professor Akintunde Obilade who went to work early in the morning, every day. I don’t know how he did it. Even on weekends, he would still get up very early. I thank both of my parents for instilling in me hard work, honesty, discipline, charity and diligence.

At this point I remember a certain Reverend Father Schuyler of St Dominic’s Catholic Church, Yaba, Lagos. Although I was a little child when I first met him, his life of service impacted me to this day. In the early 70’s I remember him sweltering in our Nigerian weather but yet he steadfastly remained in Nigeria for decades. He was faithful to his calling. I recall still seeing him start the chaplaincy at the University of Lagos and later at the College of Medicine, Idi-Araba around the early 90’s. His work and dedication have impacted me to be faithful in my calling as a teacher, a mentor, a researcher, a writer, an author, an analyst, a sister, a friend and a mother.

I want to thank all my teachers from reception through postgraduate levels. I particularly thank all my primary school teachers who made me class captain in every class from primaries 1 through 6. I thank all my teachers in secondary school who enriched my knowledge. I must mention Professor Oye-Adeniran of the Department of Obstetrics and Gynaecology, University of Lagos who from my medical school days mentored me on publications and continued to communicate with me even as I went abroad for my doctoral degree. I thank Dr. Noronha, my lecturer from the Department of Anatomy who taught me how to make a fruit cake. I still use the recipe she taught me till today. She wondered why I didn’t study

engineering because I had A one distinction in Additional Mathematics at West African School Certificate Examination (WASCE).

I acknowledge Professor M.C. Asuzu of Public Health and Community Medicine, University of Ibadan who was my examiner for my Part 2 National Postgraduate Examination during my residency training in Public Health and Community Medicine. After I came back from my doctoral degree, Professor Asuzu ensured I presented at the Association of Public Health Physicians of Nigeria (APHPN) conference in Enugu to enable me to quickly reconnect with all the community health fellows. I want to thank all the academic and non-academic staff of the University of Lagos, Virginia Polytechnic Institute and State University, USA and Nile University of Nigeria who have contributed immensely to my advancement in life. I want to thank my classmates in primary, secondary and medical schools who have come here today or are viewing me online. I want to thank my friends at Virginia Tech. I especially want to thank Emeritus Professor John Burton my Ph.D Supervisor who conscientiously read my Ph.D dissertation.

I must not forget to mention all my students both undergraduate and postgraduate for allowing me into their lives and enriching my academic and social experiences even more. I want to give a special mention to Professor Amund, former Vice Chancellor, Elizade University and retired Distinguished Professor of Microbiology, University of Lagos. Shortly after I came back from USA, I had not resumed contact with Professor Amund. He particularly sought me out and despite his hectic schedule as a Vice Chancellor, he made time to see me at my office here at Nile University of Nigeria. He spent more than an hour at our university. He met the then Provost, now Vice Chancellor, Professor Dilli Dogo. Professor Amund has been encouraging me all the way.

On the home front, I must express my sincere gratitude to Mr. Olajide Ogunsiji, a brother from another mother. For me to be able to write my lecture, Mr. Ogunsiji came to my rescue on several occasions. I confidently left him with my 86-year-old dad on many weekends so that I could get out of a pickle whenever I needed to. And many other times, that my dad needed help, he was always there. Brother Jide, Thank you!

I have come across different chiefs: honorable chief, high chief, chief whip, chief of staff and deputy chief of staff. The former Attorney General of Lagos State and former Deputy Chief of Staff to the President, Federal Republic of Nigeria, Mr. Adeola Ipaye OFR, my Supporter-in-Chief was the first to read the first, second and third drafts of this lecture crossing the t's and dotting the l's. Thank you, Sir. My son Ireti wanted to be here but could not. He wrote a note which I promised to read:

I would like to congratulate her deeply on this esteemed achievement. I know that she has worked very hard to receive this distinction. Her great passion for community medicine and community outreach is widely recognized by her colleagues and students alike. I am eager to see what is next for you in this new chapter! God Bless You, in Jesus' Name. I love you, Mummy!

Mr. Vice Chancellor Sir, I thank you, the inaugural committee, the entire management of Nile University of Nigeria and all our esteemed guests including our online viewers for being here today.

Finally, I would like to end with the words of Thomas Obadiah Chisholm (1866-1960);

Great is Thy faithfulness!

Great is Thy faithfulness!

Morning by morning new mercies I see.

All I have needed Thy hand hath provided;

Great is Thy faithfulness, Lord, unto me!

I give God all the Glory, thank you all for listening and have a safe journey back home!

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