

Utilising Adult Education against Diseases and Epidemics Through Behavioural Change among Community Members

DARAMOLA, Emmanuel Tayo

Department of Adult and Non-Formal Education

University of Benin, Benin-City, Edo State

e-mail: emmtayo@gmail.com

&

ABILAWON, Abidemi Awotunde

Department of Adult and Non-Formal Education,

Federal College of Education, Omoku, Rivers State

e-mail: abilawonabidemi@yahoo.com

Abstract: *Adult education is the best way to ensure messages reach every home and community, it assists in filling the knowledge gaps left by formal education systems, it provides support urgently necessary for effective healthcare during times of epidemics disaster. Adult education serves as a role leading to healthy living. For individuals to live a healthy life, there is a need to have a sufficient level of prior education to understand the risk level and to benefit from the dissemination of health information. To live in physically and mentally healthy life, there should be linked to having knowledge and skills about living a healthy life at every stage of life, because, having have access to health information; gives access to health care. Health literacy accommodates an individual approach by substituting the three domains of health "healthcare, disease prevention, and health promotion. Therefore, stakeholders have a key role to play in ensuring access to health education for everyone as health literacy is the first aid in preventing illness and taking care of one's health. To emphasise the benefits of health education more strongly, more research related to health and adult education is needed that documents good practices and presents new theories.*

Keywords: Adult education, epidemics, behavioural change, health literacy

Introduction

Behaviours, attitudes or belief are the most difficult changing prospect of any person. There are different ways change can be brought to any person and one of the ways is through education. Education is an acquisition of new knowledge, skills, values, morals, beliefs that can bring a permanent change in a person's thinking and capacity to do things. Nzeneri (2010) pointed out that education embraces all experiences through which an individual acquires knowledge or ideas, develops his intellect and strengthens his will. It includes information acquired through the senses. Education is different from just having access to information, it is embedded things into a person's brain and enable one's to differentiate between right and wrong, it also, a learning activity that brings new abilities and ideas that can make one's increasingly innovative and problem solver. It can take place through formal, non-formal and informal education.

Formal education is a structured and systematic form of education and it usually taking place within the four walls of the school, informal education also an accidental way of learning, acquisition can take place anywhere and it is lifelong education while non-formal education is a voluntary education and imparted consciously and deliberately; systematically implemented; educational activities usually take place outside the established formal education system such as schools, universities and colleges; characterised by mutual trust, respect and learning between the educators and the learners and mostly involves adult learners. Adult learners have very different characteristics and generally motivated by an internal need to develop new skills or learn new practices. Adult education programmes include women education, agricultural extension, worker education, continuing education, remedial education, civic education, community education, distance learning, literacy education among others. Literacy education is one of the important programmes in adult and non-formal education, it covers many areas in reading, writing and computing. Adult education serves as a role leading to healthy living. For individuals to live a healthy life, there is a needs to have a sufficient level of prior education to understand the risk level and to benefit from the dissemination of health information. Education and specifically health literacy are necessary to enable citizens to use knowledge to act appropriately and in a way that is necessary for one's defence and the defence of those for whom one is responsible. Health literacy in the context of a pandemic or epidemic refers to the possession

of literacy skills that are required to make informed health-related decisions in a variety of different environments. These skills enable individuals to obtain, understand and use the information to make decisions and take actions that will have an impact on their health status (Nutbeam 2000).

The issue of health concerns individuals, group and society in general and everybody in the society want lives a healthy life that is why every society have an interest in health issue. To live in physically and mentally healthy life, there should be linked to having knowledge and skills about living a healthy life at every stage of life, because, having have access to health information; gives access to health care. The capacity to prepare citizens to go beyond dealing with small or medium outbreaks of infectious diseases has so far not proven satisfactory, not even in the most economically and scientifically advanced countries. There are two ways to contain a localised risk of infection diseases: First, by using high containment measures that force citizens to remain in one place, and second, by leading citizens to adopt appropriate behaviours and attitudes to a particular situation. Past experiences such as a country's history in terms of diseases, culture, etc., work as mediators that influence the acceptance of such measures (Lancet 2020). The need for knowledge and information management to ensure that citizens have sufficient clear and reasonable information to guarantee that they change their behaviour to prevent the spread of infection is laying on an adult education programme. Therefore, designing teaching and learning programme for adults about new ideas that will lead to behaviour change must extremely relevant and go in line with the subject matter and useful to the learner.

Adult Education and its impact on the health and well-being of citizens

A nation's well-being is measured by how well it succeeds in furthering the health of the majority of its citizens. Education contributes to equipping citizens with life skills that are critical for improving and maintaining their health and well-being. By disseminating information and health messages about nutrition, substance abuse and emergency plans to promote health and to mitigate health risks, particularly among women and rural and minority groups in contexts of poverty. Amina Osman et al. (2017) state that the benefits of education and health for individual life opportunities and societal advantages are widely known. They also point out the strong mutually reinforcing relationship between education and health, where improvement in one has clear positive impacts on the other.

Lopes & McKay (2020) point that in the context of an epidemic or a pandemic, health literacy, which is one aspect of Adult learning and education, enables individuals to obtain, understand and use the information to make decisions and take actions that will have an impact on their health status. They further contend that adult learning and education is the only tool capable of mitigating a pandemic such as COVID-19 for several reasons:

1. The *behaviour of the individual* ultimately decides the variables in terms of a pandemic's dissemination, thus determining the scale that pandemic might reach .
2. The *current formal education systems* in place in most countries around the world are still far from able to respond to the need to prepare learners – future adults– for situations such as pandemics or other emergency risks endangering both personal and social life. While some health topics may be part of formal curricula in some countries, emergency preparedness, evacuation drills and even basic First Aid training are rare.
3. *Adult learning and education can fill the gap* left by formal education systems and can be adapted to populations with different levels of schooling, including people who have either not completed formal schooling or never attended school at all; it can thus become the tool of choice for preventive healthcare for entire populations.
4. Furthermore, when society is faced with a threat, *Adult learning and education can be tailored* to each specific situation – ideally by teaching preventive measures, but also in tackling an ongoing crisis both in terms of treatment and in stifling recurrent outbreaks in society.
5. Adult learning and education can be implemented *through different platforms* as a complementary solution, thus reaching multiple audiences directly, ensuring what is somewhat enigmatically termed “redundancy of communication, etc.
6. Adult learning and education can be *adapted to different social roles*, such as caregivers and political decision-makers as well as those who work in formal and traditional healthcare.

Peoples without literacy will not be able to correctly understand official information on how to prevent infection disease/pandemic. To acquire knowledge of a sufficient depth to enable behaviour change that is useful for their protection, adequate literacy and numeracy skills are essential tools. People without literacy are usually facing contradictory messages, they are exposed to filter out fake news and the myths that proliferate at times of social

distress. Danielle Aldrich and Michelle Meyer (2015) argue that at times of disaster, resilience is the feature that enables individuals and communities to face and manage the negative pressures that impact them and to successfully cope with and navigate crises. They point out that the development of resilience in situations of despair always has both an aspirational aspect and a learning element. Prevention of infection disease and pandemic among community members require behaviour change from all community members. Transforming information into new behaviours may be cognitively challenging and requires literacy and numeracy skills to enable citizens to read, understand and interpret instructions, and to calculate and measure, among other abilities. Without these skills, pandemics will spread at the pace of citizens' unpreparedness (Nutbeam 2015).

Research conducted by McKay (2018, 2019, 2020) on the impact of health literacy as a component of a mass literacy campaign on more than four million newly literate adults provides evidence of the contribution of literacy and numeracy to the improvement of health knowledge, attitudes, perceptions and behaviour. These aimed to resonate with health and wellbeing (SDG 3) and empower learners with healthcare, especially women ("Achieve gender equality and empower all women and girls", SDG 5; UN 2015) by focusing on personal and household hygiene, health-seeking behaviour, knowledge about vaccinations, nutrition, pregnancy, reproductive health and HIV/AIDS. The target group of newly literate adults showed an improved understanding of their chronic illnesses such as diabetes, hypertension and communicable diseases, and learners reported that they had a better understanding of how AIDS and tuberculosis (TB) are spread. Learners expressed what their newly acquired health knowledge enabled them to understand:

I know when to take my pills and how much I must take. I know what to do if I miss taking my pills

I can read the pamphlets I get from the clinic and I know the date of my next clinic visit

I know that I must not eat sugar food. I can read the posters on the wall at the clinic.

The finding of the study shows that 87 per cent of the more than four million newly literate adults perceived that they had a better understanding of nutrition, and 88 per cent perceived that their knowledge of health issues had improved and that they understood health messages better. UNESCO-UIL (2011), conducted a study in Portugal that involved 3,500 women on significant of adult education on self-esteem, extroversion and citizenship participation. The study revealed that adult women returning to education make a very significant improvement to their levels of self-esteem, extroversion and citizenship participation rates. They made their self-evaluations about a set of indicators covering the three interrelated concepts before and after participating in adult education. The aspects covered self-esteem and extroversion (the two pillars of mental health), demonstrating how adult education contributes directly to improving and preserving mental health. Another study on the critical need for basic literacy skills was conducted by (McKay and Romm 2007, 2008 and McKay et al. 2003). The purpose of their study was to establish knowledge attitudes, perceptions and behaviour of *informal sector* workers working in the streets, in markets, or at taxi ranks and to ascertain these workers' knowledge and attitudes about HIV/AIDS and to determine vulnerabilities and appropriate health and education interventions specifically designed for this target group. in South Africa and Zambia. Their findings show that low levels of literacy had implications for any proposed HIV/AIDS- or health-education interventions and that this was exacerbated by the levels of literacy and the choice of language/medium of instruction being employed in such interventions. Since illiterate people are highly vulnerable due to being unable to engage with health messages, adult education is paramount in addressing any prevention of pandemic. McKay & Romm (2008), conclude that countries relied on all educators, including adult educators, literacy educators, community development workers, community health workers, extension officers and peer educators, to disseminate carefully designed interventions.

Formal education alone cannot serve as an instrument of prevention against any pandemic since its aims primarily focused on preparing people for the labour market, and little or no learning is related to citizenship or individuals' capacity as social actors to take collective action in critical or emergencies. Adult education prepares learners for today, tomorrow and the future and serves as instruments of the emergency way for prevention of infection of disease and pandemic. The skills and training provided in any adult education programme give adult learners opportunities to make difference in daily activities. Vandemoortele & Delamonica, (2000) pointed out that training provided to learners in later stages of life is never too late. It still enables them making a difference, imparting relevant skills which can be applied in the context of a more intimate connection with family life, the responsibilities of each individual in society, the problems that the individual learner faces, and can address how they, as members of a family or other collective entity, are required to take co-responsibility in times of national disaster. There is a bridge under construction between healthcare and adult education which, once completed, will support qualitative improvements in populations' general state of health. The sheer potential transforms adult education into the best ally currently available to boost the health of the planetary population. (Lopes, 2018).

Adult education is the best way to ensure messages reach every home and community, it assists in filling the knowledge gaps left by formal education systems – thus providing support urgently necessary to enable effective healthcare during times of social disaster. In turn, it is possible to establish a virtuous circle, because useful knowledge to protect oneself and family members for whom one is responsible is usually a highly attractive reason to return to some form of education, be it formal or informal. (Lopes & Mckay, 2020).

Health Literacy and its Usefulness against Diseases and Epidemics among Community Members

Health literacy is the acquisition of skill, knowledge and capacity to access, understand and apply information related to health, it helps individual to understand the explanations of a doctor, instruction leaflets on medication, information leaflets on illnesses, etc. and also know how to apply them. Literacy in health relates to decisions taken in everyday life concerning healthcare and health prevention to maintain or improve quality of life. According to Sorensen, Broucke, & Fullam (2012), Health literacy accommodate an individual approach by substituting the three domains of health “healthcare, disease prevention, and health promotion” with “being ill, being at risk, and staying healthy”. Health literacy bears significance in improving the prevention and control of infectious diseases, whereas health knowledge and behaviour are important components of health literacy. “It is a degree to which people can access, understand, appraise and communicate information to engage with the demands of different health contexts to promote and maintain good health across the life-course.”(Kwan, Frankish & Rootman, 2006). “Health literacy” appeared in the WHO glossary, where it was suggested that “health literacy represents the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health.

It is the centre of being and remaining healthy, preventing illnesses and diseases, and giving information about potential health risks and preventive behaviour. People living in health illiterate life tend to take inappropriate treatment, hospitalized more often, less concise on preventive measures while literacy on health issue has a great impact on the efficiency of the healthcare system. Encouraging health literacy for all citizens is beneficial to the nation as it reduces costs for public health systems which can, then, work more efficiently for those really in need of it.

Fostering health literacy in a nation serve as a means of fighting poverty and disease, racism and discrimination, social exclusion and promoting social and gender equality. Healthier people in society contribute to the socio-economic development of a nation. Health literacy developed health issues and not only that it empowering the individual to attain a better life for themselves and for the society they live. Literacy, education and health literacy are regarded as essential for promoting maternal and child health, preventing the spread of communicable diseases and promoting immunisation (Nutbeam2000), he points out in this regard that health literacy does more than enable people to engage with texts relating to health matters; rather, he states that by improving people’s access to health information and their capacity to use it effectively, health literacy is critical to empowerment. Literacy is an indispensable tool for enhancing health knowledge. Literacy education is context- and time-specific, but there are sufficient generic skills, knowledge and attitudes that can contribute to the prevention of communicable diseases. Knowledge and skills about health are essential to take care of one’s health and prevent diseases. It starts with taking care of the basics like sleep, nutrition, movement and mental health. Providing and disseminating information about the importance of healthy lifestyles is the first way to empower individuals to take care of their health.

Adult education provides a safe environment in which individuals can learn about health with someone who knows the right answers and is available to respond to any questions or concerns. Research proves that adult education influences positively individual’s behaviour: according to the BeLL study, 76% of the respondents have experienced positive changes in their health behaviour after attending adult education courses. This is why health education needs to be mainstreamed in the adult education course provision. Health education needs to be accessible, affordable and of high quality. Policy-makers at every level have a big role to play there so that more people get access to the courses and can become health literate. Given the current high incidence of infectious diseases in society, improving health literacy on infectious diseases serves as an important channel in controlling epidemics and outbreaks of infectious diseases. Health literacy can improve people’s knowledge of infectious diseases and promote the development of appropriate behaviours toward infectious disease prevention and control. Health promotion is based on health literacy education, which is founded on health knowledge. Information and

knowledge of health effectively slow the spread of infectious diseases and provides proper knowledge and behaviour toward infectious diseases. By improving people's access to health information, and their capacity to use it effectively, health literacy is crucial to *empowerment*". Health literacy can be concluded as an outcome for effective health education by increasing individuals' capacities to access and use health information to make appropriate health decisions and maintain basic health.

Theory of Planned Behaviour and Health Belief Model as an Instrument for Change Behaviour

Health literacy is often indicated to accommodate an individual approach by substituting the three domains of health "healthcare, disease prevention, and health promotion" with "being ill, being at risk, and staying healthy" (Sorensen, Van Den Broucke, Fullam et al., 2012) Health literacy serves as significance way prevents and control of infectious diseases, while health knowledge and behaviour are important components of health literacy. Given the current high incidence of infectious diseases among community member particularly in rural communities, improving health literacy on infectious diseases serves as an important channel in controlling epidemics and outbreaks of infectious diseases among community members. Health education can improve individual knowledge of infectious diseases and promote the development of appropriate behaviours toward infectious disease prevention and control. Health promotion is based on health education, which is founded on health knowledge. Health education effectively slows the spread of infectious diseases, and conducting community health education programs not only provides individuals with proper knowledge and behaviour toward infectious diseases but also benefits the comprehensive development of the community. (Jedrzejska, Kalinowski and Stachowicz, 2005). Therefore, health education must be strengthened to improve the health literacy of community members.

In any health intervention programmes, behavioural change of the people is paramount as altering human behaviour is extremely difficult. To fostering behaviour change of human being, first is to understand what lead to that behaviour, why people continue with a particular behaviour and how unhealthy behaviour can be stopped and replaced with a healthy one. Different theories have been developed to answer those questions. These theories link objectives and methods to provide strategies for health intervention against disease and epidemic. A theory serves to explain why behaviour occurs, what the determinants are that facilitate or hinder behaviour and how the health educator might most effectively design an intervention to promote what is desired. Planning intervention from a theoretical perspective allow the planner of the intervention against epidemic and disease to focus on what has been identified as aspects that foster or hinder healthy choices.

One of the wide theories of behaviour is the theory of planned behaviour (TPB), it is the theory which centres on individuals' attitude and beliefs. The TPB (Ajzen 1985, 1991; Ajzen and Madden 1986) evolved from the theory of reasoned action (Fishbein and Ajzen 1975) which posited intention to act as the best predictor of behaviour. The intention is itself an outcome of the combination of attitudes towards a behaviour. That is the positive or negative evaluation of the behaviour and its expected outcomes, and subjective norms, which are the social pressures exerted on an individual resulting from their perceptions of what others think they should do and their inclination to comply with these. The TPB added the third set of factors as affecting intention (and behaviour); perceived behavioural control. This is the perceived ease or difficulty with which the individual will be able to perform or carry out the behaviour, and is very similar to notions of self-efficacy. The TPB is suited to predicting behaviour and retrospective analysis of behaviour and has been particularly widely used with health (Armitage and Conner 2001; Taylor et al. 2007).

Armitage and Conner (2001), pointed out that this issue is most likely to be methodological and state that the few studies which measured subjective norms appropriately actually illustrate reasonably strong relationships with behaviour. The TPB is not considered useful or effective in planning and designing the type of intervention that will result in behaviour change (Hardeman et al 2002; Taylor et al. 2007; Webb et al. 2010). TPB use to explain and predict likely behaviour and useful for the method of identifying particular influences on behaviour that could be targeted for change.

The health belief model (HBM) (Hochbaum, 1958; Rosenstock 1966; Becker, 1974; Sharma and Romas, 2012). It posits that behaviour is determined by several beliefs about threats to an individual's well-being and the effectiveness and outcomes of particular actions or behaviours. The perceived threat is at the core of the HBM as it is linked to a person's readiness to take action. It consists of two sets of beliefs about an individual's perceived

susceptibility or vulnerability to a particular threat and the seriousness of the expected consequences that may result from it. The perceived benefits associated with a behaviour, that is its likely effectiveness in reducing the threat, are weighed against the perceived costs of and negative consequences that may result from it (perceived barriers), such as the side effects of treatment, to establish the overall extent to which a behaviour is beneficial. The individual's perceived capacity to adopt the behaviour (their self-efficacy) is a further key component of the model. Finally, the HBM identifies two types of 'cue to action'; internal, which in the health context includes symptoms of ill health, and external, which includes media campaigns or the receipt of other information. These cues affect the perception of threat and can trigger or maintain behaviour. Nisbet and Gick (2008: 297) summarise the model as follows:

'for behaviour to change, people must feel personally vulnerable to a health threat, view the possible consequences as severe, and see that taking action is likely to either prevent or reduce the risk at an acceptable cost with few barriers. Also, a person must feel competent (have self-efficacy) to execute and maintain the new behaviour. Some trigger, either internal ... or external ..., is required to ensure actual behaviour ensues' .

Conclusion and Recommendation

Learning is a great source of personal empowerment; a creator of well-being; beneficial for one's well-being; personal happiness and increases one's sense of well-being, mental health and personal happiness. Several studies show that many people do not have access to health education and information. Adult education plays a significant role in equipping people with health competencies. Therefore, stakeholders have a key role to play in ensuring access to health education for everyone as health literacy is the first aid in preventing illness and taking care of one's health. To emphasise the benefits of health education more strongly, more research related to health and adult education is needed that documents good practices and presents new theories. The support for adult education on health courses must increase healthily people in society. Adult education is part of the process of improving levels of health literacy, necessary for people from all strata of society. Ultimately the goal of adult education is to improve the well-being and self-sufficiency of individuals, families, organizations, and communities which is required behaviour change at every level.

References

- Ajzen, I. (1985). From intentions to actions: A theory of planned behaviour. in Kuhl, J. & Beckman, J. (Eds.) *Action-control: From Cognition to Behaviour*. Heidelberg, Germany, Springer.
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Ajzen, I. & Madden, T.J. (1986). Prediction of goal-directed behaviour: Attitudes, intentions and perceived behavioural control. *Journal of Experimental Social Psychology*, 15, 173-189.
- Armitage, C.J. & Conner, M. (2001). Efficacy of the theory of planned behaviour: a meta-analytic review. *British Journal of Social Psychology*, 40, 471-99.
- Becker, M.H. (1974). The health belief model and personal health behaviour. *Health Education Monographs*, 2, 324-473.
- Fishbein, M. & Ajzen, I. (1975). *Belief, attitude, intention and behaviour: An introduction to theory and research*. Reading, MA, Addison-Wesley.
- Hardeman, W., Johnston, M., Johnston, D., Bonetti, D., Wareham, N. & Kinmonth, A.L. (2002). Application of the theory of planned behaviour in behaviour change interventions: A systematic review. *Psychology & Health*, 17, 123-158.
- Hochbaum, G. (1958). *Public participation in medical screening programs: a socio-psychological study*. (Public Health Service Publication No. 572). Washington, D.C. Government Printing Office.
- Jedrzejewska, B. Kalinowski, P. & Stachowicz, A. (2005) Knowledge of healthy behaviours among teenagers attending selected schools of the Lublin region," *Annales Academiae Medicae Stetinensis*. 51, 65-69.

- Kwan B, Frankish J, Rootman I. (2006). *The development and validation of measures of "health literacy" in different populations*. Vancouver, University of British Columbia Institute of Health Promotion Research and University of Victoria Centre for Community Health Promotion Research.
- Lancet, The. (2020). Editorial: COVID-19: Too little, too late? *The Lancet*, 395(10226), 755. [https://doi.org/10.1016/S0140-6736\(20\)30522-5](https://doi.org/10.1016/S0140-6736(20)30522-5)
- Lopes, H. (2018). How adult education can save your life. *Journal of Adult Education and Development*, 85
- Lopes, H. & McKay, V. (2020) Adult learning and education as a tool to contain pandemics: The COVID-19 experience. *International Review of Education*, 66, 575-602 Available at <https://doi.org/10.1007/s11159-020-09843-0>
- McKay, V.I. (2018). Literacy, lifelong learning and sustainable development. *Australian Journal of Adult Learning*, 58(3), 390–425. Retrieved 15th February 2021 from <https://files.eric.ed.gov/fulltext/EJ1199862.pdf>.
- McKay, V.I. (2019). Communities in action: The participation of communities in two South African literacy campaigns. In I. Eloff (Ed.), *Handbook of quality of life in African societies*. (pp. 23–44). Cham: Springer. https://doi.org/10.1007/978-3-030-15367-0_2.
- McKay, V.I. (2020). Learning for development: Learners' perceptions of the impact of the Kha Ri Gude Literacy Campaign. *World Development*, 125, Art. 104684. <https://doi.org/10.1016/j.worlddev.2019.104684>
- McKay, V., Mokotong, E., & Sham, B. (2003). *Our graves are open: Report on the prevention of HIV/ Aids in the informal sector in South Africa*. Compiled on behalf of the International Labour Organisation. Pretoria: International Labour Organisation. Retrieved 15th February, 202` from https://www.researchgate.net/publication/335402316_Our_graves_are_open_Report_on_the_prevention_of_HIVAids_in_the_informal_sector_in_South_Africa_Compiled_on_behalf_of_the_International_Labour_Organisation.
- McKay, V., & Romm, N. (2007). A systemic approach to addressing HIV/AIDS in the informal economy in Zambia: Methodological pluralism revisited. *International Journal of Applied Systemic Studies*, 1(4), 375–397. <https://doi.org/10.1504/IJASS.2007.019302>.
- McKay, V., & Romm, N. (2008). Active research towards the address of HIV/AIDS in the informal economy in Zambia: Involvements in social development. *Action Research*, 6(2), 149–170. <https://doi.org/10.1177/1476750307087050>.
- Nisbet, E.K.L. & Gick, M.L. (2008). Can health psychology help the planet? applying theory and models of health behaviour to environmental actions. *Canadian Psychology*, 49, 296-303.
- Nutbeam, D. (2000). Health literacy as a public health goal: A challenge for contemporary health education and communication strategies in the 21st century. *Health Promotion International*, 15(3), 259–267. <https://doi.org/10.1093/heapr o/15.3.259>.
- Nutbeam, D. (2015). Defining, measuring and improving health literacy. *Health Evaluation and Promotion*, 42(4), 450–456. <https://doi.org/10.7143/jhep.42.450>.
- Nzeneri, I.S. (2010). *Adults in battle: any hope of victory?* Inaugural lecture series, no 71. Port-Harcourt. University of Port-Harcourt Press.
- Rosenstock, I.M. (1966). Why people use health services. *Milbank Memorial Fund Quarterly*, 44, 94-124.
- Sharma, M. & Romas, J.A. (2012). *Theoretical foundations of health education and health promotion*. London: Jones and Bartlett Learning.
- Sorensen, K. Van Den Broucke, S. Fullam J. Doyle, G. Pelikan, J. Slonska, Z. (2012). Health literacy and public health: a systematic review and integration of definitions and models," *BMC Public Health*, 12 (1), 1-13.
- Taylor, D., Bury, M., Campling, N., Carter, S., Garfied, S., Newbould, J. & Rennie, T. (2007). A Review of the use of the health belief model (HBM), the theory of reasoned action (TRA), the theory of planned behaviour (TPB) and the Trans-Theoretical Model (TTM) to study and predict health-related behaviour change.
- UNESCO-UIL (2011). Accreditation of prior learning as a lever of lifelong learning.

- Vandemoortele, J., & Delamonica, E. (2000) The “education vaccine” against HIV. *Current Issues in Comparative Education*, 3(1), [online article]. Retrieved 15th February, 2021 Sfrom [https://www.tc.columbia.edu/cice/pdf/256763_1_Vandemotor ele_Delamonica .pdf](https://www.tc.columbia.edu/cice/pdf/256763_1_Vandemotor%20ele_Delamonica.pdf).
- Webb, T.L., Sniehotta, F.F. & Michie, S. (2010). Using theories of behaviour change to inform interventions for addictive behaviours. *Addiction*, 105, 1879-1892.