

## Environmental adult education in the context of Covid-19 and infectious diseases

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### Abstract

The world-wide pandemic better known as coronavirus or COVID-19 took the world by storm without exemption. It came with trepidation breaking all human, ethnic, traditional and official barriers. The world pandemic put the rich and the poor in both the North and South at par. It was overwhelmingly pervasive — breaking boundaries and barriers of interaction, association and mobility. COVID-19 gave the world a new culture and broke established norms and processes in the world of work and in government business — paving way for new threshold. Needless to say, COVID-19 gave the world a new code of learning and work. This new *modus operandi* may appear a novel all must come to terms with as a new condition of living. Environmental adult education as a tool for helping man adopt this new conditions of living (as the fight against the pandemic continuous), is examined in this paper.

**Keywords:** environmental adult education, COVID-19

### Introduction

The world has become an amalgam of enclaves with the advent of COVID-19. In the present new world order occasioned by COVID-19, information dissemination and understanding among people is paramount to the fight against COVID-19—a pandemic in which adults are regarded as the most vulnerable group.

The coronavirus pandemic also known as COVID-19 pandemic is an ongoing global pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-COV-2). The outbreak was first reported in Wuhan, China, in December, 2019. The World Health Organization declared the outbreak a global pandemic and a public Health Emergency of International Concern on 30<sup>th</sup> January and a pandemic on 11<sup>th</sup> March, 2020 respectively. The virus has been reported in over 188 countries with more than 12 million cases infected people and more than 500,000 deaths (Shereen, 2020; Muhammad *et al* 2020; Azian, *et al* 2020; Serwaa *et al* 2020) [8, 5, 1, 7].

The virus is spread mainly between people during close contact, through small droplets produced by coughing, sneezing and talking. The virus can also be found on surfaces, and people are advised to avoid touching surfaces, their faces, and shaking hands (WHO, 2020) [16].

Common symptoms associated with the virus include fever, cough, fatigue, shortness of breath and loss of sense of smell. Complications may include pneumonia and acute respiratory distress syndrome. Incubation period of the virus is 14 days. There is no known cure or vaccine presently. Treatment for the disease is symptomatic and supportive therapy.

Some preventive measures have been recommended to include washing of hands regularly, coughing under one's elbow, maintaining physical distancing, wearing of face mask in public places, disinfecting surfaces, increasing ventilation and air filtration indoors, monitoring and self-isolation for people suspected to be infected.

Consequently, governments all over the world in a bid to curb the spread of the virus, have responded by placing

lockdowns, travel restrictions, and shut down of work places. Testing facility and contact tracing of infected people are also being carried out as well as health facility measures provided in public places. COVID-19 pandemic has caused tremendous set-back in world socio-economic and political progress in private and public life.

### Education, Perception and Attitudes towards Covid-19

It is axiomatic that education is a critical modifier related to positive attitude and perception towards COVID-19. As widely reported, skepticism and fear expressed towards COVID-19 are associated with a distorted perception and misconception of the virus. While the pandemic persists, opinion poll across the world indicate that educated people have a better understanding of control and preventive measures related to COVID-19 (Zegarra Valdivia, Chino-Vilca and Ames-Guerrero, 2020) [17].

Attitude of the people in many affected areas has tended towards non-compliance with government measures to contain COVID-19. The public attitude prevails at the risk of affecting their own health and close relatives. In the circumstances, it is crucial to educate the people to have a broad understanding of virus, and thus facilitate the adoption of measures to prevent the spread of the virus. This poor attitude to the containment of COVID-19 is prevalent more in developing countries than in developed countries. And this is also attributable to lack of public trust in government officials.

Knowledge and understanding about the spread of COVID-19 can be mediated by environmental adult education which inculcates healthy practices in day-to-day living on the importance of health, hygiene and sanitation. Through environmental health education, practical knowledge is provided about viruses and/or communicable diseases, other serious health problems and first aid, and emergency services. By this means, the individual takes personal responsibility in ensuring change in habits and attitudes. This guarantees individual and collective basic human survival needs.

Studies around the world at the outbreak of COVID-19 reveal that education and understanding are key to compliance and adoption of measures to contain the spread of the disease. It is revealed that the risk factor in the infection rate of COVID-19 can be mediated by the perception and information that the individual holds. Education therefore broadens the understanding and perception of the measures imposed by government to protect public health (Zegarra-Valdivia *et al* 2020 and Azian *et al* 2020) <sup>[17, 1]</sup>.

Environmental adult education is presented here as a panacea to the fight against COVID-19 (through health education and health promotion programme among adults. COVID-19 in an environmental factor. Environmental adult education, therefore, develop in people attitudes of care, curiosity and concern for the environment. Embedded within these three principles are the specific aims of the learning process: the development of knowledge and understanding, attitudes and behaviour for the environment to help resolve environmental challenge, awareness and sensitivity to the environment, and skills to know how to use the mechanisms available in society to bring about environmental change.

In many rural and urban areas, lifestyles are characterized by lack of drinking water, absence of basic rules of hygiene, sharing of accommodation with animals, consumption of disease carrying animal species, lack of proper sanitation, poor waste management, etc. These poor health condition and practices are as a result of lack of civic education and basic notions of hygiene (N'Galog-Waye, 1997) <sup>[6]</sup>.

The COVID-19 pandemic emanated from human consumption and interaction with animals at the Wuhan city, China. Despite progress in controlling communicable diseases, new ones have continued to emerge, the latest is the coronavirus which is ravaging global health. The Alma-Ata Declaration on Primary Health Care and Ottawa Charter for Health Promotion was an international initiative of World Health Organization (WHO) in collaboration with UN agencies to provide international direction, technical cooperation, strengthen and develop innovative methods, and strategies for health education and health promotion (WHO, 1997) <sup>[15]</sup>. The Ottawa Charter was to enable all people to adopt and maintain healthy lifestyles and healthy behaviour; to promote the creation of sustainable environments conducive to health; and to increase control over and to improve their health. This programme focuses not only on promoting healthy lifestyles but also on support to programmes that prevent and control disease and disability.

The Ottawa Charter for health promotion seen as an aspect of environmental adult education promotes the achievement of the highest level of physical, mental and social well-being for all people. Similarly, environmental adult education is a way of thinking that is characterized by deep reflection on the elements on which human existence depends. Following from such deep reflection, networks for the discussion of the causes and consequences of diseases that have assumed epidemic and pandemic proportion in the world today can be created. Environmental adult education must have a local, community and even family dimension, and it is the total of actions taken locally that must lead to the creation of a new educational method, a new mindset that fits in with an international environmental network

(N'Gaba-Waye, 1997) <sup>[6]</sup>.

WHO is pioneering networks for health promotion? The Healthy Cities network is an excellent example of health promotion in action, and has become a world-wide project. Environmental education networking can be used as an effective mechanism to address COVID-19 pandemic at local and global levels.

Environmental education networking is a model for development that stems from the local, isolated and often spontaneous problem-focused initiatives. According to Wangoola (1989) <sup>[14]</sup>, in the course of problem identification, individuals meet with one another and discover the similarity of needs and problems out of which their needs arise as well as the similarity of action being undertaken. At this point they seek to find out more about each other, and to identify more people with a similar predicament. Gradually, mechanisms and modalities are developed for exchanges or action.

COVID-19 is a thematic area of international concern for creation of networks and the mobilization of resources for the resolution of an identified problem. Networks are created to provide a space and openness for people to meet and articulate their needs and demands. In environmental adult education, the principle of networking has become instrumental for decentralization, democratization, participation and development in the method of constituting forum to facilitate access to information to address common issues to achieve the development of the environment. This is the mechanism for providing information and disseminating information that has been lacking since the outbreak of COVID-19. Governments in many countries affected by COVID-19 have failed to utilize the networking mechanism in providing essential information and education about COVID-19 by the world populations to contain the disease. All over the world people in the present circumstance would access and accept information that can change their attitude only in a free atmosphere that expresses their concrete reality. This is a condition that is met by environmental education networking.

### **Putting the Breaks on Covid-19: The Population Factor**

In the face of COVID-19, over population has increasingly made it difficult for some of the measures introduced by governments to enlist the support and cooperation from people to combat the disease. For example, there is the obvious reluctance by some people to wear face mask and to observe social distancing in public places (CGTN, 2020) <sup>[2]</sup>. Some of the reasons deduced for this attitude is that some of the public places are overcrowded. This would apply also to public transportation which became necessary to reduce the number of people to be infected by the disease.

Population is considered as a fundamental variable in any consideration of preparation and response to COVID-19 protocols. Population mounts increasing pressure on infrastructure resource use. Again, some of the problems arising from rapid population growth are compounded by the differences in lifestyles. The rapid population growth has served to increase the number of poor households worldwide and poor households often rely on margin a linfra structure for survival, thus establishing a cycle of poverty and infrastructure depletion. Infrastructure depletion occurs when the population exceeds the capacity of social institutions to cope with urban decay. In the face of

population pressure, developing countries are adversely affected because a great majority of the people live below poverty line (UNEP, 1992) and so eke out a living at subsistence level.

The implication of the above population characteristic is that those living on marginal incomes found it difficult in developing countries such as Nigeria to show compliance to COVID-19 measures such as mobility restrictions, lockdowns and physical distancing. Many in this group live on daily wages, and are not in regular employment.

As populations grow, the task of providing for their needs and wellbeing through infrastructural provision becomes more challenging. Population growth give rise to urban growth. As cities increase in size, slums and squatter settlements proliferate. Given this scenario, those who live on marginal incomes are more preoccupied with the satisfaction of human needs than complying with measures introduced by governments to contain the virus.

Many who live in over populated areas are hardly served with educational facilities – hence they can barely read and write. Over populated areas with lean educational facilities has implication for the education, perception and attitude of the underserved. Consequences of population explosion, according to Singh (2009), will include increase in psychological stress and strain; rapid pollution of the environment; large scale unemployment; severe competition for food and space; depletion of resources (natural and infrastructural) etc. A growth in human population faces the problem of food, shelter, and other socio-economic problems. Other accompanying problems may include increase in competition for shelter, educational and medical services, rises in price index, ecological crisis etc. This is the pattern of growth and development in developing countries.

The population on the move poses a great challenge in the age of COVID-19. These groups of most vulnerable populations on the move include both children and adults. The crowded condition and poor access to proper water and sanitation common among families living in displaced areas pose obvious risk at a time when social distancing and hygiene are so critical (UNICEF, 2020) <sup>[13]</sup>. The migrant population globally and in Nigeria, for example, the IDPs herdsmen, fishermen and farmers face enormous socio-economic challenges that the COVID-19 poses in such areas as poverty survival and health, learning and protection and safety (UNICEF, 2020) <sup>[13]</sup>; UN, 2020) <sup>[12]</sup>. New and innovative approaches and methods are therefore needed to help this vulnerable group with precarious livelihoods overcome these new challenges through education, laws and rehabilitation processes.

### **The Dilemmas of Poverty and Covid-19**

During the period following and in the aftermath of COVID-19, the world faces serious dilemmas and enormous challenges in the form of hunger, unemployment and damage to human health exacerbated by disease. The poverty index in many countries especially in Latin America and African is alarming. Following the outbreak of COVID-19 there is increasing fear that measures taken by governments might escalate poverty levels by 56% in low-income countries according to a report by the International Labour Organization (Modern Diplomacy, 2020) <sup>[4]</sup>. It has been estimated that as many as 1.6 billion of the world's

two billion informal economy workers are affected by lockdown and containment measures.

The ILO report recommends that as a remedy, there is need for policies that reduce the exposure of informal workers to the virus; ensure that those infected have access to health care; provide income and food support to individuals and their families; and prevent damage to the economic fabric of countries.

There is a significant difference in the response pattern between populations in high-income and low-income countries to the lockdown measures. There is growing unease among the populations in low-income countries that imposing a total lockdown would not only heighten poverty among households, but also heighten the risks of conflict. The situation gets worse in Latin America and the Caribbean where it has been reported that exposure to unclean energy for cooking and heating (firewood, charcoal, kerosene, frequently aggravated by living in overcrowded homes with poor ventilation, makes people more susceptible to chronic respiratory diseases. Again, the lack of access to drinking water and/or adequate sanitation is critical when hygiene standards is an essential requirement to avoid contagion and spread of a virus. These poor hygiene standards gets worse in homes where adults have had little or no education and where it is difficult to observe hygiene habits. The low-income population live in homes far from modest accommodation without facilities for modern living – of ten over crowded-spend their day on the streets. Confining this set of people in poor housing conditions during lockdowns can only result in intra-family dysfunctions, and in extreme cases, domestic violence and child abuse (UNDP, 2020) <sup>[10]</sup>.

The social exclusion that characterize poor households result from lack of job or inadequate job. Consequently, the imposition of lockdown which forced people to stay home interrupts the meager income of people living at subsistence level. Similarly, the education of children of poor households also suffers during lockdowns. The education of children in rich households and those of poor households appear to widen due to the difficulty adults in poor households have in assisting their children do their classwork at home – compounded by lack of IT knowledge and economic barriers for accessing on-line learning. The paucity of accommodation heightens the frustration adult's face in assisting children with their homework (UNDP, 2020) <sup>[10]</sup>.

Given the above scenario, it has become necessary that governments provide adequate support mechanisms for families living in multidimensional poverty. This can be done by ensuring effective measures are designed to protect poor households against the spread of COVID-19 – in addition to the isolation measures taking into account prevalence and emergence of other diseases and problems.

### **Institutional Barriers in Curbing Covid-19**

The first shocking revelation of institutional barriers in curbing COVID-19 came from the world's leading democracy helmsman – US President Donald Trump – (who made light of COVID-19 to the chagrin of not only American civil society, but also the American media and people around the world who watched Donald Trump appear in public refusing to wear face mask together with his aids, and publicly discountenance advise from his health

experts. We saw a President who chose self-medication in preference to internationally approved health and social measures. This posed a serious setback to the effort at providing public health education to the world community. No doubt this attitude by the world's 'No. 1 President' may have given birth to more of Trumps who may not have been in the full glare of publicity. However, the world has moved on making collaborative efforts to contain COVID-19 disease. In all the 188 countries affected by COVID-19, Public Health Safety (PHS) measures as recommended by WHO are being enforced fully or partially. The PHS measures reviewed here is as reported by Maqbool and Khan (2020) [3] as follows:

Public safety and social initiatives must be enforced with the complete involvement of all citizens of community to limit or curb the propagation of COVID-19. PHS measures include detection and isolation of infected individuals, contact-tracing and quarantine, social distancing, national and international travel measures, and treatments. As there are no vaccines and treatment available for COVID-19 disease, it is necessary to look for other alternatives which could be helpful in lessening the quantity of contaminations and saving lives. Measures reported by WHO include physical distancing, teleworking, distance learning, restriction on the use of non-essential facilities and services, national and international travel restrictions, home staying etc. Such actions are taken in combination with individual protective measures which is frequent hand washing and etiquette during coughing against contagious COVID-19. To be effective in containing the community transmission of this disease, PHS initiatives must be adopted by the society. As the world continues to mobilize efforts to discover vaccine for the treatment of COVID-19, some measures have been recommended above to keep the disease at bay. However, some barriers to the process of the measures to prevent COVID-19 are identified by Maqbool and Khan (2020) [3] as:

1. **Lack of Safety Commitment from Public:** Commitment in this context, is seen as a binding force on an individual to a course of action of relevance to one or more targets.
2. **Poor Safety Culture:** This is the culture of government or political will with a strong degree of emphasis on protection principles, values and attitudes which are inculcated in the citizens.
3. **Lack of Administrative Commitment and Support at Community Level:** The preventive measures would largely depend on institutional support required for the maintenance, participation, motivation in enforcing the COVID-19 process.
4. **Lack of Strict Enforcement of WHO Regulations:** The enforcement of WHO regulations is possible through vigorous sensitization of the people by health and volunteer workers.
5. **Lack of Resources for Implementing Public Health and Social Measures:** Lack of resources consist of lack of funds, poor resource allocation and ineptitude.
6. **Lack of Medical Facilities at Community Level:** This

requires judicious and efficient deployment of medical faculties.

7. **Lack of Door-to-Door Services during Quarantine Period:** The door-to-door services is important in order to reduce the movement of persons for medical services, large gathering and the rate of infection.
8. **Lack of Proper Communication between Health Advisers and Public:** Proper communication in health care delivery will involve the patients, doctors, nurses and other health personnel.
9. **Lack of Government Policies:** In this case, accurate information sharing is essential for an effective health care system for prevention, treatment and control of harmful diseases.
10. **Public Stigmatization:** Stigmatization either for COVID-19 or other infectious diseases is to be discouraged. Labelling carriers of diseases has the effect of preventing infected persons from seeking medical solution. It can also lead to difficulty in prevention and management of diseases of epidemic and pandemic proportion.

From the foregoing analysis, it can be stated that the implementation of the measures highlighted above is greatly determined by government commitment to providing effective health services to the citizens. Governments ought to show leadership response on coronavirus. And it is also correct to state that efforts of many governments, (particularly in the North) during the COVID-19 period, have been marked by lack of honesty and commitment in allocating and utilizing resources for the purposes they are meant; lack of accountability; lack of adequate and trained health personnel; lack of adequate health facilities designated for detecting, isolating, contact tracing, quarantine and treatment of infected persons; and public stigmatization of those infected by COVID-19 disease. All this has made COVID-19 an absolute nightmare to many.

### Conclusions

In this pandemic era, environmental adult education is a conceptual tool for generating actions that must lead to a new mindset that fits in with an environmental network. Environmental adult education must enable people create frameworks for the discussion of the causes and consequences of the health crisis that the world is awash with, and their solutions. This should be done through cells set up in rural committees, shanty towns, working-class districts, factories, social centres, hospitals, markets, churches, mosques etc., where environmental education and health animators would provide explanations to environmental, social, economic, political, health services etc. that shape the lives of people. Environmental adult education, through its networks is an important mechanism for raising awareness among the people on recurrent themes that bother on development priorities and major areas of health concern. In today's world, there is increasing need to develop platforms for cooperation, interaction and participation in order to develop knowledge and capacity to deal with overwhelming impact of change on man.

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