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Coronavirus Disease 2019 (Covid-19): Effects on Education with Special Emphasis on Basic Education System in Kenya

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Abstract

The evolution of COVID 19 and its effects to education is highly uncertain, making it hard for policy makers to formulate appropriate policy response world over. This article attempts to discuss the effect of Covid-19 on basic education. It is a theoretical desk-top review of literature. In order to understand the effects, the origin, symptoms, spread and the measures taken to prevent Covid-19 have been introduced. The findings show the effects felt so far to include; closure of school, educational Inequalities due to the digital divide, high cost/lack of computer and internet to parents, anxiety and emotional distress, heightened cases of domestic violence, potential increase in school drops out, child marriage and teenage pregnancies, exposure of vulnerable children to sexual abusers and corona virus, inadequate food provision at home, gender based violence, effects to children with disabilities, economic effects and teachers and other staff salaries/ lay-offs. Positive effects of covid-19 have also been discussed. Suggestions on how schools can re-open include; putting in place the minimum WHO guidelines in all schools, stationing medical personnel in schools for routine monitoring and surveillance, classrooms to accommodate 20 students only, provision of flexible learning approaches for pregnant girls and young mothers, consideration teachers and workers above 55 years with the option to deliver instruction remotely and government to consider constructing Portable Modular Classrooms as they are the best option when schools need more space. This review is important to education theorists and practitioners, government and other stakeholders in the field of education.

Keywords: *Pandemics, Coronavirus, Covid-19, Disease, Basic Education, effects*

1. Introduction

The 2019 novel coronavirus' or COVID-19 is a disease caused by a new strain of coronavirus. 'CO' stands for corona, 'VI' for virus, and 'D' for disease. The COVID-19 virus is a new virus linked to the same family of viruses as 'Severe Acute Respiratory Syndrome '(SARS) and some other types of common cold (UNICEF and WHO, 2020). Health officials say it originated in a market in Wuhan, China where traders sell live and dead wild animals that people eat for food for improved health and vitality and a number of other purposes (International Medical Aid (IMA), 2020). Currently there's no cure for the 2019-nCOV. Symptoms can include fever, cough and shortness of breath. In more severe cases, infection can cause pneumonia or breathing difficulties. More rarely, the disease can be fatal (UNICEF and WHO, 2020).

The 2019 novel coronavirus which spreads through droplets from coughs and sneezes is a global pandemic as declared by WHO, (International Medical Aid (IMA), 2020). A pandemic is a disease prevalent over a whole country or the world. People are also infected from holding and then touching surfaces contaminated with the virus and then touching their face (e.g., eyes, nose and mouth). The COVID-19 virus may survive on surfaces for several hours, but simple disinfectants can kill it.

The spread of what health officials are calling the 2019-nCOV virus happens mainly in the two-week incubation period during which time, a person may have the virus, display no symptoms of it, but can still spread it to others.



That makes it very hard to know who has the virus and when they should take actions to protect themselves from becoming infected or infecting others. This has created an extra sense of concern that the virus could quietly continue to spread (International Medical Aid (IMA), 2020).

This virus has spread fear and worry to many people all over the world due to its high contagious nature and fast way of spreading, being able to pass between people before any symptoms appear. Compounding this is the fact that there is still no known vaccine available and the efforts to contain it stems from a lack of previous experience with it. A United Nations report on socioeconomic impact of COVID-19 shows that the speed and scale of the spread, the severity of cases and the societal and economic disruption has already been dramatic and could be worse as it takes hold in poorer nations (United Nations, 2020).

Measures Taken to Contain COVID-19

Several measures were put in place to contain the fast spread of the corona virus. Public spaces including schools, markets, churches and mosques have been closed down and people advised to stay at home, observing social distance and wearing masks whenever outside and in public places. Besides this, numbers of social gatherings were and still are limited to only the unavoidable ones and participants limited to not more than fifteen people. Washing of hands thoroughly with soap or use of hand sanitizers has been advocated to slow down the rate of infection (WHO, April, 2020). As at mid-April, 2020, some countries had started slow opening of the economy to balance between lives and livelihood.

Basic Education

According to World Conference on Education for All (EFA) (1990) meeting in Jomtien, Thailand Basic Education is a whole range of educational activities, taking place in various settings, which aim at meeting basic learning needs. It comprises of primary education which is the first stage of basic education and lower secondary education as the second stage. It covers a wide variety of non-formal and informal public and private activities intended to meet the basic learning needs of the people of all ages.

In Kenya the Basic Education Act. No. 14 of 2013 defines it as the educational programmes offered and imparted to a person in an institution of basic education and includes adult basic education and education offered in pre-primary educational institutions and centres. It incorporates primary and secondary education. The effects discussed in this paper narrow themselves to the basic education as defined in the Act.

Research Objectives

1. To determine the effects of Covid-19 on Basic education in Kenya.
2. To Recommend mitigation measures against effects of Covid-19 on basic education in Kenya.

Research Questions

1. What are the effects of Coronavirus Disease 2019 (Covid-19) on Basic Education?
2. What are the possible recommendation to mitigate against the effects of Covid-19 on basic education and reopening of schools?

2. Research Methods

The paper is a theoretical desk-top review of literature.

3. Analysis Result and Discussion

Covid-19 has continued to spread across the world with immediate as well as long term socio-economic ramifications. Some of the immediate effects are discussed as follows:

Closure of Schools

The pandemic has disrupted learning for close to 1.5 billion learners globally. Most governments around the world have temporarily closed educational institutions in an attempt to contain the spread of COVID-19 (UNESCO, 2020-05-24). UNICEF monitoring reports that as of 24 May 2020, approximately 1.725 billion learners were affected by school closures worldwide in response to the corona virus pandemic. One hundred and fifty-three (153) countries implemented nationwide closures impacting about 98.6 percent (UNESCO .2020-03-04). The closure is a threat to the



attainment of Sustainable Development Goals (SDGs) particularly goal number 4 on access to quality, equitable and inclusive education (UNESCO, 2020).

In Kenya, the first case of Covid-19 was reported on 13th March 2020 and on 15th of March 2020 the President of the republic of Kenya His Excellency Uhuru Kenyatta directed the closure of all basic, tertiary and institutions of higher learning to prevent massive spread of the corona virus. The closure, meant that 15 million primary and secondary school learners were to remain at home. The 2020 school calendar for primary and secondary schools were scheduled to close by April 10th and open by May 4th which did not happen due to coronavirus spread and its nature. This affected learning programs in the traditional set up of student-teacher classroom instruction. Syllabus coverage has been greatly hampered. Even though some online learning has been adopted as an alternative, not many students can access it easily due to socio economic factors like poverty and poor internet connectivity, coupled with low IT literacy levels of the learners and their parents.

Educational Inequalities due to the Digital Divide

Following closure of school many countries opted to online instruction so as to mitigate against loss of student time. In many parts of the country where many households cannot access internet and other tools such as radio programs and TV programs, access to online education is a challenge and the use of this method may marginalize students further. Although some aspects of technology were already in use in some institutions of learning, due to the covid-19 situation, the sudden demand for use in the delivery of all teaching subjects caught many schools unprepared. Schools are supposed to convert their lessons to online platforms like zoom, WhatsApp or simply via electronic media instruction suddenly. Many students' have been left struggling with technological difficulties of studying at home learning how to construct and obey a productive study schedule outside the school set up. Inclusion and equity must be the guiding principles in access to education. Young children need the assistance of a person in charge of instruction usually a teacher. They may find it difficult to concentrate in a typical frontal class conducted on a computer.

Access and Cost of Electricity, Computer and Internet

Even though some schools are able to conduct lessons online, many students do not have access to computers or internet in their homes. Learners in rural parts and slums or the poor parts of the country which have no electricity or proper internet connectivity are disadvantaged. Even for those in urban centres who are said to have online classes, the cost or accessibility of laptops and other related gadgets as well as data is another main concern. These students will be forced to miss out on their education until viable options can be arranged. This brings out further inequality in access to education. Even though the Ministry of Education in conjunction with the Kenya Institute of Curriculum (KICD) has put many lessons in the national radio and television channel targeting learners in basic institutions of learning (Republic of Kenya, 2020) not all students can access and interact with these lessons especially those in the remote rural areas. Others are not able to sit through the sessions to the end without the constant supervision of their regular teacher. They easily get distracted in the home environment.

Unrealistic Costs to Parents

There are reports that some schools were charging parents for online studies (Njuguna, 2020). A report done by Nyaundi on 26th of April, 2020 indicated that parents were in revolt over the unrealistic costs associated with virtual education for children out of school especially in private schools. The parents indicated that the schools could not provide art, drama, PE, field trips and other activities online, hence, the whole cost is greatly inflated and the product inadequate. Nevertheless, according to Bitange Ndemo, a former PS at the ICT ministry online programmes are supposed to be less expensive, however, the costs can go up and vary greatly. Online programmes have many hidden costs which are quite high compared to their face-to-face counterparts like for example, building new courses with new types of engagements, conversations and assessments for online environments.

Anxiety and Emotional Distress

The school going children have not been spared the anxiety that has gripped the nation following the outbreak of the pandemic. The fear of infection, the reality of infected family members, the fear of the uncertain future all lead to emotional state that makes it difficult for the students to concentrate. Students find it difficult to concentrate fully in an out of school set up especially with online learning tools. Students with special needs also rely on in-person instruction. They may also find it difficult to switch to online platforms (University of the People, 2020).

The final year students in both primary and secondary schools are anxious on when the national exams will be conducted. For children caught at the apex of this crisis, there is a genuine prospect that its effects will permanently



alter their lives. UNESCO (2017) report has shown that children facing periods of prolonged exposure to toxic stress, during the critical window of early childhood development are likely to develop lifelong challenges as their neurological development is impaired. Children who experience family breakdowns during this period of heightened stress risk losing the sense of support and security on which children's wellbeing depends. In addition, children from households with family member affected by Covid-19, may find themselves segregated and shunned from other members of the community. This can lead to breakdown of social fabric that could lead to detrimental effects on school going children (Republic of Kenya, 2020).

Heightened Cases of Domestic Violence

Media reports have indicated heightened cases of domestic violence leading to breakages of homes. The reduced access to income generating activities, loss of jobs and livelihoods have provided a fertile ground for domestic violence to thrive. Under normal circumstances, the most vulnerable in the society such as women, youth, children and persons living with disabilities endure cases of domestic violence. The Covid-19 crisis has magnified this structural violence and inequalities further (Equality Now, 2020)

Potential Increase in School Drops Out

COVID-19 forced school closures in 185 countries, Plan International and UNESCO warn of the potential for increased drop-out rates which will disproportionately affect adolescent girls (UNESCO 2020). That possibility becomes greater the longer schools are closed and the deeper the economic contraction brought about by the pandemic. Increase in drop out could be contributed to by the high number of teenage pregnancies, the young mothers may not be comfortable returning to school due to stigmatization. The boys and girls who may engage in illegal activities such as substance abuse during this period may fail to report back to school once schools open.

Increased child Labour

The covid-19 world pandemic and the resultant economic and labour market shock has affected many lives, ILO 2020 report indicate there are approximately 152 million children in child labour globally, that during such economic difficulties, the children at the greatest risk of exploitation through child labour. In Kenya Due to the hard-economic times, children are already doing odd jobs to fend for their families especially those from economically disadvantaged families. Farming activities, domestic chores, hawking and 'bodaboda' (motorcycle) businesses are some of the activities, children have been forced into in order to contribute to household economies.

Child Marriage and Teenage Pregnancies

Children who drop out of school will face not only increased child labour but are also at higher risk of child marriage and teenage pregnancies. The education CS Prof Magoha on his briefing on COVID pandemic on 5th June 2020 pointed out that several school girls from the slums had fallen pregnant during this period and cautioned the parents to be vigilant and take care of their children. Covid-19 may aggravate the already dire situation of teen pregnancies in counties that are already faced with the challenge for instance, results from Kenya Health Information System Survey, (2020) as reported in the Daily Nation of June 18th 2020, recorded Machakos County as having 3,964 teenage pregnancies within five months of a COVID-19 inspired by lockdown in Kenya. Similar reports concerning other counties have been reported in the media. This new reality endangers the future of education for the growing number of teenage girls. Earlier, a lesson from effects of Ebola on education in West African states found that the closure of schools increased girl's vulnerability to physical and sexual abuse both by their peers and by older men, as girls were often at home alone and unsupervised. Transactional sex, which is sex for money or prostitution, was also widely reported as vulnerable girls and their families struggled to cover basic needs. As family breadwinners perished from Ebola and livelihoods were destroyed, many families chose to marry their daughters off, falsely hoping this would offer them protection.

Exposure of Vulnerable Children to Sexual Abuser

Lockdowns tragically also present an opportunity for child abusers to harm children. Children are rarely in a position to report such egregious acts owing to the fact that some could be close family members and caregivers. Others children are threatened of dire consequences if they report. Yet, at a time of increased need, children no longer have the same access to teachers to report incidents at home, while social work and related legal and protective services for children are being suspended or scaled down. Children reliance on online platforms for distance learning has also



increased their risk of exposure to inappropriate content and online sexual predators. Growing digitalization magnifies children's vulnerability to harm (UNICEF, 2017).

Exposure of Vulnerable Children to Corona Virus

A billion people worldwide live in slums, informal settlements and inadequate housing. Standard physical distancing and lockdown measures risk accelerating the spread of the pandemic among these populations, who often lack piped water and hand-washing facilities at home, and rely on communal sanitation facilities. Those same measures again risk destroying the livelihoods of these people, with severe effects on their children. Experience with HIV in Kenya shows that those children who lose a parent due to the pandemic face reduced odds of returning to school. (Miguel, 2013) similarly the Covid-19 pandemic has resulted in the death of some parents and guardians and probably the affected children may fail to return to school.

Inadequate Food Provision at Home

In many parts of the world, school feeding programs provide children with their most nutritious meal of the day. They are essential for the cognitive development and well-being. Many families rely on the public-school system for education and necessities like food and child care. The closure of schools has left many children without proper meals and child-care. Learners from low-income households, those from Arid and Semi-Arid Areas (ASAL) urban slums and pockets of poverty in Kenya, often depend upon schools for meals and sanitary towels provided by government and partners. With closure of schools, children who rely on them for these basic needs are experiencing hunger with detrimental nutritional effects as reported in the State Department of Early learning and Basic Education; Kenya Basic Education Covid-19 Emergency Response Plan (Republic of Kenya,2020). The girls who depend on school for provision of sanitary towels may fall prey to sexual predators as they struggle to get means to obtain these essentials.

Gender Based Violence

Gender based violence otherwise known as 'shadow pandemic' has been found to increase whenever families spend time together even in happy moments. UN notes that the current lockdowns, quarantine, isolations and restricted movement have caused women and girls to spend more time with their known and potential abusers (Amnesty International 2020). Lockdowns and other shelter measures in place come with heightened risk of children witnessing or suffering violence and abuse. Children in conflict settings, as well as those living in unsanitary and crowded conditions such as informal settlements, refugees and IDP settlements, are also at considerable risk of exposure to sex predators. Inability to provide for families amid increase in unemployment has put pressure on families. It is noted that this leads to frustration and anger that is usually meted out to women and children in the household. Children's reliance on online platforms for distance learning has also increased their risk of exposure to inappropriate content and online sex predators (UNESCO, 2020).

Children with Disabilities

Children with disabilities and special needs face extra challenges because they experience significantly higher chances of neglect, abuse, segregation and loneliness which predisposes them to psycho social challenges including depression. The use of e-learning made necessary by the Covid-19 pandemic has marginalised this group further. Most parents do not have smart phones, or internet, but even those who have will take time to orient the children living with disabilities on the use of these devices. The parents are not trained to instruct this category of children. As pointed out by the Open Institute (2020) those with visual impairments have no assistive devices such as brails, deaf children will need sign language interpreters while those with developmental disabilities require special needs teachers. All these cannot be provided through online instructions and therefore this category of learners remain disadvantaged.

Economic Effects

The private schools complement the government effort in the provision of basic education. Whereas public schools receive capitation from the government for operational costs, private schools depend solely on the tuition fees paid by the parents. Similarly, the teachers in public schools are employed and paid by the government through the Teachers Service Commission (TSC) while staff in private schools depend on fees for their salaries. The closure of schools therefore has profound economic effect on the private schools' staff compared to public institutions. According to an article by Independent School Management body (ISM,2020), the COVID-19 pandemic has put the private schools in



a dilemma over several issues; such as whether to refund prepaid tuition fees or to forego collecting tuition fees for the remainder of the academic year during the period of school closure, whether to maintain current salaries and hourly wages paid to employees even if they are at home during this corona virus crisis and how to organise Board of Management meetings/sessions to pass crucial resolutions during this Corona Virus period when social gatherings are banned by the authorities. Private schools depend on loans from banks for their development. The repayment of these loans has fallen behind due to school closure in the wake of Covid-19. Chances are some of the schools may be auctioned by in due course by financial institutions and lenders. The economic impact on private school may lead to closure of some private school in future due to the financial burden.

Teachers and Other Staff Salaries and Lay-offs

The Kenya Private Schools Association Chief Executive Officer, Peter Ndoro noted that Private schools will not be able to pay their teachers and other staff salaries following closure of schools due to the Covid-19 pandemic, (Daily Nation, Wednesday, May13 2020). “Already things are very difficult on our side as since the beginning of March we have not received any income from our clients, who are the parents,” said Mr. Ndoro Private schools receive little or no direct or indirect assistance from the government. The vast majority of the private schools depend almost entirely on student tuition and fees for their existence. Very few of them are established by religious entities and NGOs which may be able to seek alternative support from their parent organisations. Most of the schools employ tens of thousands of people and incur substantial expenses 70 % to 80 % on rentals and salaries (WondwosenTamrat, 2020). Private schools are staring at a possible financial crisis and their teachers and staff being laid off if the coronavirus pandemic continues indefinitely. Already some private schools have asked their staff to take compulsory unpaid leave. Besides the impact on private school, there is likely loss of income for the BOM employed teaching and non-teaching staff in public institutions of learning as well. (Republic of Kenya, 2020). The government has come up with a raft of measures to cushion the economy against the effects of Covid-19. The private schools just like other small and medium size (SMEs) should be considered in these economic stimulus assistances.

Positive Effects of Covid-19

The children can learn life skills while at home. Innovativeness by learners has been triggered by the pandemic in an effort to provide solutions and contribute to containing the virus. For instance, a nine-year-old boy in primary school, Stephen Wamukota received Uzalendo Award which is a presidential commendation for inventing a hand washing equipment to aid in the fight against covid-19 (Citizen Digital 2020). Parental involvement and interaction between parents and children in learning activities has increased with the onset of the pandemic. Usually, children spend a lot of their time in school while parents are busy eking a living. The minimum interaction between the parents and the children has been reported to have detrimental effect not only in their development but also their schooling. This pandemic has created an opportunity for close interaction and bonding. Covid-19 has pushed forward the agenda on digital literacy and embracing of technology. Those schools and teachers who were reluctant to train and move into new pedagogical approaches have had no choice faced with the new norm of online instruction.

4. Conclusions

This review concludes that Covid-19 has had tremendous negative effects on the basic education in Kenya despite the few positive effects cited. The review concludes that the digital learning has created more inequality among the learners due to inaccessibility by the majority. The vulnerable children including girls and children living with disabilities have been exposed to sexual predators leading to unplanned pregnancies, diseases, anxiety and emotional distress. This study concludes high cases of dropout shall be experienced once schools open. The economic distress caused in the sector leads to the conclusion that teachers and support staff dependent on school for their salaries and upkeep are disfranchised and cannot meet their basic needs. Finally, the review concludes that schools are not ready to cope with effects of covid-19 and therefore rigorous and well thought out preparations are needed before schools re-open.

5. Recommendations

The government has announced that likelihood of opening of schools may be in September of 2020. For the schools to open there must be irreducible minimums as guided by the WHO guidelines of social distancing, washing of hands and wearing of masks. Besides the government must put in place protocols for handling vulnerable staff and children and those with pre-existing health conditions. There should be preparation to subject all school staff to mandatory testing prior to schools opening. In case of infections in the institutions, protocol should be in place. Before then,



training and capacity building need to be conducted for all teachers and care givers in schools to be in a position to guide the learners on Covid-19 protocols before schools open in September.

Some schools which were used as quarantine facilities will need thorough fumigation. Hand washing points will need to be stationed at strategic points and all members of the school to be trained on proper hand washing techniques. Sanitizers and face masks to be provided free of charge to all schools by the government. In addition, medical personnel to be stationed in schools to routinely monitor and offer surveillance services on the disease and recommend appropriate action.

Classrooms as they are today should only accommodate up to 20 students once the government allows schools to resume physical classes to ensure that there would be proper social distancing among learners. As Weingarten, Johnson and DeJesus (2020) in American Federation of Teachers (AFT) established that, a class sizes of 25 or more students in a small classroom pose obvious risks to student health and safety. Class sizes of 12-15 students will. In most circumstances, make it possible to maintain physical distancing protocols.

Provision of flexible learning approaches so that girls are not deterred from returning to school when they re-open. This includes pregnant girls and young mothers who often face stigma and discriminatory school re-entry laws that prevent them from accessing education.

Schools need resources to rebuild the loss in learning once they open again. Schools should plan to reschedule rather than skip or scrap internal assessment. Transitional examinations to a next grade should be rescheduled to a reasonable time when the desirable content of study as per the syllabus has been satisfactorily covered by all learners in order not to disadvantage any for lack of access to online materials during the lock down period.

The school board of management can hold virtual meetings to deliberate on crucial matters of managing the school. Physical meetings can also be held in accordance with government (International School Management, 2020) Staggered opening can be done prioritizing on students in important transitional years. Form 4 and class 8 students can be used as a trial for the system as they can be spread in all the rooms in the school.

COVID-19 disproportionately affects people who are 55 years and older and those with underlying chronic health conditions. Reopening plans should consider providing these teachers and workers with the option to deliver instruction remotely while students are in the building, with students under the supervision of qualified staff. At-risk students should have a similar option to learn remotely while their teachers and peers are in school.

Portable Modular Classrooms (MODs) are said to be the best option when schools need more space. The government should try to put some in place by the time schools open. A modular classroom is a building that is constructed off-site in a factory setting. Instead of bringing the construction materials to the site to begin construction, the building is constructed off-site in a warehouse. Upon completion, the classroom is shipped to its future location. They are an affordable, quick, and convenient solution to space challenges for many schools. With MODs classroom the issue of spacing of students can be achieved (Patterson, Chandler, Jiang and Chan, 2009).

The migration to digital learning platform did not give room for capacity building for the teachers, just like the learners many teachers struggle to provide online instruction to students. It is vital that governments support teachers and equip them with the skills to provide quality distance learning. The United Nations report (March 2020) notes that, it is not only crucial for the international community to support governments in providing distance-learning solutions that use multimedia approaches to ensure learning continuity, but also in supporting teachers, parents' and caregivers, in adapting to home schooling modalities.

Lastly but not least, the government could partner with private schools to place some of the learners in the private schools and the government finances the students as is the case with the universities today. The partnership could be extended to private investors who can afford to build school but the government must commit themselves to financing the students in the private schools. This would assist in terms of sufficient space for social distancing.



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