The effect of COVID-19 lockdown on nutritional and learning needs of children in Ghana: A perspective

Matthew Y. Konlan[1],* Hilarius A.K. Abiwu[2]

[1,2] Department of Public Health, Northern Regional Health Directorate, Ghana Health Service, Ghana.

*Correspondence: matthewykonlan@gmail.com

The Corona Virus Disease 2019 (COVID-19) pandemic continues to spread globally, with major health, economic and social implications. Many countries closed schools as a physical distancing policy measure with the short-term view of mitigating the impact of COVID-19 by slowing its spread and reducing the burden on an already overburdened health system. Although the effectiveness of school closures on virus transmission remained a debated issue (Cohen & Kupferschmidt, 2020), prolonged school closure may have had profound negative social and health implications for children and could have exacerbated existing inequalities. In Ghana, all schools were closed down for several months. As a result, the out of school vacation time for most children doubled. We discuss three ways prolonged school closure may have affected children in Ghana.

First, school closure has the tendency to exacerbate food insecurity for poor children in Ghana. For many poor students, schools are not only a place for learning but also for eating healthy (Fernandes et al., 2017). The positive benefits of school feeding on improved academic performance, and the implications of food insecurity (including irregular and unhealthy diets) on poor educational achievements and related inequalities on children has been studied (Schwartz & Rothbart, 2019). A significant proportion of children are food insecure in Ghana. For example, a study in Tamale in the north reported that foods consumed by upper primary school children were basically from local staples and lacked diversity. Animal source protein consumption was low and children did not consume eggs. Children who consumed fish and meat did so occasionally (Abiba et al., 2012). School closure during the pandemic made children house-bound, adding to the economic challenges of their families especially the poor and rural. Some of these children would otherwise have received free meals as lunch provided by government. Lower nutritional status of children in rural and poor homes might be a long-term effect of COVID-19 pandemic.

Although there is a dearth of studies linking vacation to unhealthy weight gain in Ghana, the school vacation period and its link to unhealthy weight gain has been a subject of considerable research in recent times in Western countries (Franckle et al., 2014; von Hippel & Workman, 2016; Wang et al., 2015). Von Hippel and colleagues reported that children experienced higher and more variable body mass indices (BMIs) in the non-school environment (during vacation) than during

school sessions (Von Hippel et al., 2007). Pietrobelli and colleagues recently reported that COVID-19 lockdown has brought significant changes to the dietary behavior of children in Italy. The findings revealed that children have significantly increased the consumption of unhealthy foods (potato chips, red meat, and sugary drinks), significantly decreased the time spent in sports activities, and increased sleep and screen time (Pietrobelli et al., 2020).

It can be assumed that the social distancing and stay-at-home orders in Ghana impeded physical activity among children, particularly children in urban areas. Sedentary activities and screen time were expected to surge under these conditions as well. Increased screen time for children in Ghana can expose them to unhealthy food adverts and subsequently affect their diet and weight status. It has been previously established that energy dense nutrient poor food adverts targeting children dominate some television stations in Ghana – sugar-sweetened beverages (25.8%), snacks (12.8%), milks and yogurt (12.4%), instant noodles (7.1%), and candy/chocolate and ice creams (6.4%), most of which use persuasive techniques to lure children into eating these unhealthy foods (Kumi, 2018). It is in respect of this that Rundle and colleagues recently advanced the argument that the COVID-19 pandemic school closing will likely exacerbate the risk for weight gain during holidays in the United States (Rundle et al., 2020a). Unhealthy weight gain within this period is of particular concern because childhood obesity is linked to overweight in adulthood (Rundle et al., 2020b) and related inequalities.

Additionally, mounting evidence suggests that non-school factors play an important role in the disparities in educational outcomes; mathematical and literacy skills between children of lower and higher socio-economic status (SES) groups become widespread during holidays (Alexander et al., 2007). Vacation holidays are observed to lower academic achievement in children of low SES group; this however, is not observed in children of high SES (Cooper et al., 1996). In Ghana, the recent closure of schools was no different from vacation, as learning was not digitally continued. Therefore, it may have further expanded existing learning gaps between children from low and high SES families. Children from low-income households also live in conditions that make home schooling difficult. Online learning environments usually require computers and reliable internet connectivity, which are often lacking in low SES families.

Government, school authorities, parents and other stakeholders may have faced two main challenges. First, the nutritional and learning needs of children needed to be addressed. Parents had to monitor the dietary behavior and physical activity pattern of children, perhaps by making children engage in indoor exercises that meet dietary and physical activity guidelines. In addition, parents may have limited the screen time of their children in order to prevent them from being exposed to unhealthy food adverts. Governments and policy makers have a duty to regulate food advertising targeted at children on television stations. Secondly, school authorities and government needed to address the challenges that awaited as the pandemic subsides and lockdowns end. The teaching materials and methods may have changed after the pandemic to adjust for the time losses, and this must take into consideration children from lower SES who had poor non-school learning environment.

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We declare no competing interests.

Authors' contributions

MYK conceived the idea and drafted the initial manuscript. HAKA reviewed the manuscript. Both authors approved the final version of the manuscript.

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