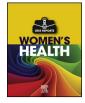
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# Invited Editorial Delay in managing benign gynaecological conditions in women of reproductive age during the COVID-19 pandemic in low-and middle-income countries



Women aged 15–49 years are considered to be in the reproductive age group. They are the main progenitor of the human population and consequently are the key determinant of the future workforce and economic growth. The majority of these women are healthy, yet some have medical conditions that deserve evaluation and treatment. Some of these medical conditions are gynaecological and by their nature require privacy for assessment and treatment. This is of particular importance in many low- and middle-income countries (LMIC) where some cultures tend to promote patriarchy and limit the expressiveness of women and their access to healthcare.

On 8 December 2019, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which causes Coronavirus Disease 2019 (COVID-19), was reported in Wuhan, China. The disease, being highly contagious [1], spread rapidly across the world and was declared a pandemic on 11 March 2020 by the World Health Organization. In response to the pandemic, many countries restricted social and economic activities to prevent the spread of the disease, and to prepare healthcare facilities to cope with the infection. Contemporaneously, access to healthcare facilities for "non-emergency" medical conditions was also restricted. These lockdowns resulted in many women not being able to access care for gynaecological conditions and many patients not wanting to go to hospital for fear of contracting COVID-19, hence delaying diagnosis and treatment. Furthermore, the resultant cash squeeze from the lockdowns contributed to women's inability to seek medical help for perceived non-serious conditions as healthcare payment in many LMIC is by out-of-pocket expenses. Procurement of drugs, supplies and equipment not used for managing COVID-19 infection was delayed [2]. Clinicians working in other specialities were prepared and redeployed to manage COVID-19 complications. The situation affected many industries, including transport and education. As a result, virtual meetings and scholarly webinars became commonplace and may remain so in the future. Where the facility exists, telemedicine has been utilized to prevent unnecessary contact with patients. However, there has been concern that consultation over the telephone may be inadequate in addressing obstetrical and gynaecological conditions [3].

Before the COVID-19 pandemic, both emergency and nonemergency benign and malignant gynaecological conditions in LMIC were treated without any restriction. The patients with nonemergency gynaecological conditions were usually given scheduled appointments. Conversely, emergency cases are prioritized and managed immediately. During the peak of the COVID-19 pandemic, treatment of many non-emergency benign gynaecological conditions was postponed. While termination-of-pregnancy services were offered in some of the accredited centres, where legalized during this period [4], management of conditions such as infertility and non-bleeding benign gynaecological cases were deferred. As the SARS-CoV-2 virus causes a respiratory disease and is also found in the abdominal cavity and may be transmitted through surgical smoke/plume during an aerosolgenerating procedure, preventive measures are required when performing endotracheal intubation and endoscopic surgeries [5]. Due to the large number of women of reproductive age who receive gynaecological services in LMIC, this group was predominantly affected. The pattern of triage adopted during the COVID-19 pandemic was recommended in guidelines of many organizations in LMIC [4,6]. For instance, the Southern African Society of Reproductive Medicine and Gynaecological Endoscopy (SASREG) recommended that, where possible, surgery in COVID-19 patients should be postponed until the infection has resolved [6]. The recommendations of deferment of nonemergency cases were made in good faith to channel sufficient resources to fight COVID-19, prevent nosocomial transmission of the virus to patients, as well as minimize exposure of healthcare workers to the infection. All these ultimately protected the world's healthcare systems, especially the already fragile ones in LMIC, from total collapse.

The consequences of the delay in managing benign gynaecological conditions are enormous for patients and the healthcare system. At the patient level, some conditions have resulted in prolonged pain and suffering. The continued delay in some cases resulted in emergency complications. For instance, according to the experience of one of the authors, disorders of sexual differentiation such as imperforate hymen with a massive amount of haematocolpometra became acute abdomen requiring emergency surgery. Deferment of treatment of mild dysfunctional uterine bleeding led to anaemia that could have been avoided. Asymptomatic unruptured ectopic pregnancies that could have been diagnosed and managed conservatively did not get medical attention until they ruptured and required emergency surgery. While the biological clock was ticking, many women with infertility could not access care and the time lost may be irrecoverable. A chronic pelvic inflammatory disease that is usually treated in the general gynaecological clinic might have also caused damage that worsens or results in infertility. Undoubtedly, psychological stress causes sexual dysfunction and compromises oocyte quality [7], and stress may result from the delay in managing gynaecological conditions during the pandemic. The fact remains that the extent of the psychological impact of delayed management of gynaecological conditions during the pandemic requires investigation in future studies. At the level of healthcare facility and administration, a large number of postponed gynaecological cases have

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accumulated and many centres will battle to attend to the patients on the waiting list. The economic impact of the disease and the death of some clinicians due to the pandemic worsen the situation and will only delay return to normality. Glaringly, the cost of treating gynaecological conditions which have become complicated is a burden that the patients and other role players in the health sector have to bear.

Can the LMIC respond effectively and efficiently to the delay in managing benign gynaecological conditions? Yes, they can. However, concerted efforts from various sectors of the government and private establishments are required to achieve this feat. Firstly, economic recovery and growth are required to pay for the medical infrastructural development and capacity building. Secondly, there is a need for an extension of duty hours to attend to the backlog of patients. The healthcare system, therefore, should support overtime duties as well as a mass number of gynaecological surgical operations. Thirdly, there should be prevention of disease spread and worsening severity. In that light, the availability of COVID-19 vaccines is welcome. With the identification of new variants of COVID-19 [8], further research must be supported to develop a prototype vaccine that will be safe and effective against the new strains. The distribution of effective vaccines should be such that every eligible recipient in LMIC and all over the world be offered this live-saving preventive therapy. In settings where the preventive measures of wearing a face mask, hand washing and social distancing are not adhered to, the national and municipal government must actively engage in public health promotional activities to enforce compliance. The provision of appropriate Personal Protective Equipment should be a given for management of Persons Under Investigation or confirmed cases. COVID-19 testing in patients admitted to hospital and in those scheduled for elective surgical operation should be provided and encouraged. Until all the possible niduses of infection are protected from the disease, new waves of COVID-19 infection are likely to occur [9]. There is also a need to manage COVID-19-infected patients with safe therapies. Fourthly, strategic planning [10], including of infrastructure and human resources, is needed to deal with any future pandemic. A good public-private partnership strategy should be developed in this regard. During the peak of the COVID-19 pandemic, medical tourism for treatment abroad was halted due to national lockdown restrictions. This scenario is a wake-up call for many politicians, who usually seek medical treatment abroad, to enforce good governance, including financial accountability, to improve the capacity of their healthcare system to deal with medical illnesses and future pandemics.

In conclusion, the COVID-19 pandemic has delayed the management of benign gynaecological conditions in women of reproductive age in LMIC. The healthcare system should respond to this challenge by adopting measures such as those recommended in this editorial. At the same time, stakeholders in LMIC should improve their healthcare system to satisfy the current and future health needs of their populace.

#### Contributors

Nnabuike Chibuoke Ngene conceived the form of the editorial, wrote the initial manuscript, and revised and approved the final submission.

Chioma Obiageli Onyia revised the manuscript and approved the final submission.

Chibuike Ogwuegbu Chigbu revised the manuscript and approved the final submission.

Lawrence Chauke revised the manuscript and approved the final submission.

## **Conflict of Interest**

The authors have no conflict of interest to declare.

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