COVID-19 Public Health Restrictions and Older Adults’ Well-being in Uganda: Psychological Impacts and Coping Mechanisms

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**ABSTRACT**

**Objectives:** Older adults across the globe have been particularly affected by the novel coronavirus due to their increased susceptibility to the virus. With limited existing research, the aim of this study was to explore the psychological effects of COVID-19 public health measures on older adults in Uganda and their coping mechanisms.

**Methods:** Thirty semi-structured interviews were conducted with older Ugandans (aged 60+) in June 2020. Participants were asked about their experiences of public health measures, and their effects on the lives of older adults compared to pre-pandemic.

**Results:** Three themes were identified: Impact on emotional well-being; Implications on physical well-being; and Coping mechanisms. Older adults experienced both psychological and physical effects, including upset, fear, and frustration about restrictions and the virus, as well as early signs of increased frailty, thus causing concerns for the long-term emotional and physical health of older Ugandans.

**Conclusions:** Public health measures need to be considerate of the potential long-term implications on the well-being of older adults in low-, middle-, and high-income countries, and ensure the possibility for continued physical exercise and social connection. This can be particularly challenging for people from more disadvantaged backgrounds who may not be able to afford a smartphone or laptop, with older adults further requiring support in using digital technologies.

**Clinical implications:** Older adults need to receive adequate psychological support to cope with the mental health impacts of the pandemic.

**KEYWORDS**

Ageing; Older adult; COVID-19; LMIC; pandemic

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**Introduction**

Since the World Health Organization (WHO) reported the first case of COVID-19 on the 11th of March 2020, the world population has been affected in all aspects of daily life by the virus and associated restrictions. With the advances in the vaccine discovery and roll-out across several nations as of December 2020/January 2021, there is hope to avert the transmission of the virus across the general population. However, due to inequitable access to vaccines across nations, the reduction in the virus spread might be prolonged. This is particularly the case for people living in low- and middle-income countries (LMICs), with LMIC governments being less likely to afford paying for millions of vaccines.

As a result, the effects of COVID-19 are likely to be felt longer in LMICs than in higher-income countries. Lockdowns and social distancing measures, and living through the pandemic, have already been found to impact on the mental health of adults in the UK for example (Pierce et al., 2020; White & van der Boor, 2020). However, how people are coping in LMICs with restrictions, in different geographical, cultural, and economic settings to the UK for example, has not received a great deal of attention to date (Kar et al., 2020).

In Uganda, as in most LMICs, older adults (aged 60+) are amongst the poorest members of society, mostly relying on their children for food and income (Schatz, Seeley, & Zalwango, 2018). In this country, 4.1% of people are aged 60 or above (UBOS, 2019). Healthcare services can be difficult to access for everyone, causing inequalities, with mental healthcare provision being inconsistent and not reaching each person (Molodynski,
Cusack, & Nixon, 2017). This is further amplified by the rural settings of many parts in Uganda. There is some progress on mental healthcare provision, however, by, for example, linking in mental health care with primary care (Breuer et al., 2018; Kigozi et al., 2016; Petersen, Ssebunnya, Bhana, & Baillie, 2011). With COVID-19 and associated public health measures posing significant disruptions on the lives of older adults living in LMICs in general (Lloyd-Sherlock, Ebrahim, Geffe, & McKee, 2020), including older Ugandans (Giebel et al., 2020), the emotional impact of the pandemic and restrictions have not been explored to date. Emerging research is highlighting how older adults in LMICs have adapted their health seeking behaviors however (Arthur-Holmes, Akaadom, Agyemang-Duah, Abrefa Busia, & Peprah, 2020). This involves not visiting their healthcare professional and instead staying at home and using alternative treatments. These may lead to long-term implications with health concerns not looked at by medical professionals. Mental health issues, if identified and of concern by the individual, may be similarly treated, and specifically exacerbated or originated by the pandemic in itself. Therefore, it is crucial to understand the impact of the pandemic on older adults’ emotional well-being.

Specifically in Uganda, the first case of COVID-19 was reported on the 20th of March, when the Ministry of Health advised all education settings to close for one month initially, which was extended to one year. Transport was restricted to only heavy-duty cars that transport food and a total lockdown was enforced as almost all organisations were shut down except for service providers. Access to medical services was restricted due to a ban on public transport. People had to wear Personal Protective Equipment (PPE) when accessing public places, and a 7 pm to 7 am curfew was imposed from March to August, with the curfew still in place in 2021 but only starting at 9 pm.

The aim of this study was to explore the impact of COVID-19 public health restrictions on the well-being of older adults living in Uganda. With a paucity of research to date on the psychological and physical effects of public health measures on people living in LMICs, particularly older adults who are more severely affected by measures due to their increased mortality from the virus, findings from this novel study can help to understand whether future public health measures for future waves of the pandemic need to be adjusted to maintain psychological well-being as much as possible. This is specifically pertinent considering the anticipated delay in rolling out the vaccine across LMICs via COVAX.

Methods

Participants and recruitment

Older adults aged 60 years and above, residing in the Mukono district in Uganda, were eligible to participate in the study. Permission was sought from the District Community Development Department registry prior to study commencement, to retrieve registered phone contacts of older persons. Convenience sampling was employed to recruit all the participants. Thirty registered phone contacts were randomly picked from the registry. Phone contacts that were unavailable, or older person who could have died, were replaced.

Data collection

We obtained ethical approval from the AIDS Support Organization Research Ethics Committee [Ref: TASOREC/084/20-UG-REC-009] prior to study begin. Consent for participating in the study was obtained prior to the interview. The interview guide was produced jointly by all team members, and can be found in Appendix A. The interview guide was developed in English, before being back-translated into “Luganda,” a commonly spoken dialect. Interviews were conducted via phone calls and lasted between 40 minutes and 60 minutes, with two interviews lasting up to 90 minutes, audio-recorded and subsequently transcribed, and translated into English. Each participant received a £10 shopping credit as a thank you for taking part.

Data analysis

English-language transcripts were coded by two research team members experienced in qualitative research (CG, BI) using deductive thematic analysis (Braun & Clarke, 2006). Each team member coded transcripts individually highlighting codes in the transcripts, before discussing emerging codes and
themes jointly with the team and agreeing on the final themes. The team met several times to discuss the codes and bring these into themes. Given the culture specific focus of this analysis, it was important to have one researcher from the Ugandan team involved understanding the cultural backgrounds (BI).

**Results**

Thirty older adults participated in the study. Of these, the majority was female (n = 23; 76.7%) and co-resided with their family members, particularly with their grandchildren, with household sizes ranging from 2–8 family members. Although the study was conducted in the Mukono district, which has peri-urban and urban settings, the majority (n = 24; 80%) of participants resided in rural areas.

Thematic analysis identified three themes with different sub-themes: (1) Impact on emotional well-being; (2) Implications on physical well-being; (3) Coping mechanisms.

**THEME 1: impact on emotional well-being**

**Frustration about situation and boredom**

Older adults were highly frustrated with the situation and the impacts of the public health measures on their daily lives. Being restricted to the home, mostly unable to visit their plot of land where they are normally growing vegetables to have some level of income as well as produce their own food, created boredom and frustration.

“I hate it. It frustrates me because I have nothing to do.”
**P05 (female, 68 years)**

“Sincerely this has really hit me bad. This has brought loneliness and has augmented my sickness but we have nothing to do.”
**P14 (female, 68 years)**

“I feel extremely heartbroken because even when I have my produce no one will buy them because most of my customers are now very poor and broke”
**P03 (female, 60 years)**

**Upset about inability to see friends and family**

As a result of being restricted in their movements, participants were upset about being unable to see their loved ones also. Normally, participants would see and visit their relatives and friends on a regular basis. This also increased loneliness in some participants who would normally see their children or grandchildren.

“The only thing that makes me sad is not being able to see my children. And this is because I can’t board a taxi to go visit so that has affected me as an old person.”
**P10 (female, 70 years)**

“When covid came, we prioritized our lives with a saying health is wealth, so we gave up on everything with a belief that covid will come to pass. However, I feel bad that I can’t even visit my siblings and they can’t visit me too. So that’s what makes me sad but the issue of staying home is ok with me because it protects my life. The fact that we can’t attend burials is so bad.”
**P03 (female, 60 years)**

**Fear**

Older adults were afraid on a number of levels – amongst these the fear of catching the virus. As a result, older adults were strictly adhering to the public health measures, and maintaining social distance when seeing people on the street that are not part of their household. Some participants also expressed an existential fear for their life. Public health measures have caused further poverty as people are unable to go to work and unable to go to their plot of land to get produce to sell outside their houses or on the market. Working age generations have become jobless. Whilst the 7 pm curfew has been viewed with mixed feelings, as older adults themselves are not allowed to be outside after 7 pm even for buying essential goods, the curfew was also considered positive as it kept crime rates low. Participants were afraid that crime would rise once the curfew was lifted.

“We greet each other when we happen to see each other but we don’t get near each other. Am actually scared of everyone because you can’t know who has the disease but when the situation gets better, we shall go back to normal, greet and hug each other again.”
**P08 (62 years)**

“The other is the fear of this disease, previously we had HIV but at least we knew the routes on getting infected by the virus and we managed to prevent the contraction, but this virus, we don’t even know because within a very short period of time you hear someone has got the disease.”
**P19 (female, 80 years)**
In case curfew is withdrawn, people will kill us in our houses, in case I sell my produce, those who are jobless will come for my money at night. P03 (female, 60 years)

However, one participant particularly highlighted that due to the lack of income as a result of COVID public health measures, theft has indeed increased in the area. This caused current fear, as the person was afraid of being robbed.

'Here in our area cases of theft have increased probably due to the fact that very low-income earners have not been permitted to work again. So this is frightening.' P19 (female, 80 years)

THEME 2: implications on physical well-being

Frailty
Most older adults were frail prior to the pandemic, but had to work on the fields or dig in their own garden for either their own consumption or to earn a living from the produce. The inability to leave the house under the imposed restrictions and to go to the farm and look after their crops, go to the market and sell or buy food or other necessities, or go and visit friends and attend church, appears to cause a very sedentary lifestyle for most. This has negatively impacted some participants becoming weaker, whilst others merely state that they have nothing to do, suggesting them to become more frail with ongoing restrictions:

'I feel so bad because am becoming weak and weaker. The only thing am left to do is sit here and wait for my grandchildren to come and see me. You know if you love someone, you check on them, so when they miss me they will come and check on me. Now I can’t even afford a good meal, that has affected me a lot and for all this time in lock down, I have just weakened.' P06 (female, 66 years)

'By the time the corona disease outbreak occurred, I was already sickly and my body was weak and couldn’t do anything yet before I could walk to get anything I wanted even if it was far as Mukono and could even walk to buy milk from anywhere it was sold however far. But now, I can’t manage.' P21 (female, 70 years)

Lack of cognitive and social stimulation
Being unable to engage in daily activities compared to prior the pandemic, older adults appeared to experience a lack of cognitive stimulation. This also related to a lack of social stimulation, by being unable to see friends and family and attending social gatherings. Older adults described how they had little to do at home, mostly being sedentary, and having no engagement with people outside their home on a regular basis. This can have detrimental long-term implications for people, as one participant in particular stated as it “can (…) lead (…) to deterioration of our minds”:

'We spend the day seated at home, sometimes we take breakfast and again go to bed. Sometimes you may take a walk like a kilometer then go back home and maybe sleep. […] I have no access to medicine, no access to contacts with their families because some of us here can stay in one place for some time. This can even lead us to deterioration of our minds because you don’t interact with your friends as before to take away boredom. […] I am so disappointed that because I used to do business but I can’t do any more. As a counsellor, I used to go and advocate for my people but there are no meetings any more all our movements were suspended so there is nothing much to do.' P07 (male, 72 years)

THEME 3: coping mechanisms

Whilst some participants were affected more than others by the restrictions, overall participants were accepting the restrictions and believed these were for the better.

Acceptance
The way all participants dealt with the restrictions was by accepting them and not questioning the government’s imposition of the measures. Whilst restrictions had a negative impact on older adults’ lives, such as lack of income, reduced access to healthcare services, and feelings of fear and upset about the pandemic, they accepted the measures as the necessary way to contain the virus.

'You have to bear with where you are and remain humble.' P24 (male, 75 years)

'I feel bad and hurt for missing out on burials of my people but I console myself with the fact that the conditions aren’t allowing me. I want to tell you that whenever you think of someone, you may long to visit them but there is nothing much that you can do about it in this period.' P21 (female, 70 years)

'we are to observe the guidelines by washing our hands and staying at home. This wasn’t the common practice but we were advised to do so during this time so we just
have to keep safe and observe the guidelines.’ P23 (female, 73 years)

Faith
Many participants were religious and drew on their faith to cope with the pandemic and its restrictions. This helped them to accept and deal with the situation better, as they prayed and believed that the pandemic may have been a decision by God.

‘All my time, even when you see something wrong, you simply kneel and pray to God. I don’t quarrel with people.’ P24 (male, 75 years)

‘Maybe we wronged God and he is punishing us just like how a parent disciplines his children when they do wrong so am okay because I know it will end.’ P10 (female, 70 years)

However, linked to their strong faith as a coping mechanism was the fact that people were unable to attend religious ceremonies, including burials. This was particularly affecting participants due to increased deaths as a result of COVID-19. Attending church was a regular feature of many participants pre-pandemic, which was now missed by many.

‘Another effect of this lockdown due to the virus is that we cannot bury our relatives anymore. This is indeed so painful because this is culturally not correct.’ P19 (female, 80 years)

‘The regulation stopping us from burying our loved ones in peace has been so annoying and am really tired of it. This has affected me so much.’ P11 (female, 65 years)

‘It has affected us because, I was used to going to church to praise God and praying, when you go to church, you feel reborn so I really don’t feel well with not going to church.’ P15 (female, 70 years)

Discussion
This is one of the first studies to have explored the impact of COVID-19-related public health restrictions on the mental well-being of older adults in an LMIC. Older Ugandans have been affected negatively by the restrictions resulting in social isolation from friends and family, as well as implications for their cognitive and physical well-being.

Corroborating previous thinking by De Sousa, Mohandas, and Javed (2020), the pandemic appears to have exacerbated poor mental well-being in older Ugandans, as highlighted in this study. Lack of income, lack of socialization, lack of access and being generally (socially) isolated all appear to have contributed to poorer mental well-being in older adults, with the restrictions found to impact heavily on the economical situation of older adults in LMICs (i.e. De Sousa et al., 2020; Giebel, Ivan, Burger, & Ddumba, 2020a). Further research is required to explore the impact of the pandemic on the mental health of older adults living in LMICs via quantitative measures of depression and anxiety, with a general need for greater data availability and quality on COVID-19 and older adults in LMICs (Lloyd-Sherlock, Sempa, McKee, & Guntupalli, 2021). Increased mental health issues related to the pandemic have been found primarily in the UK to date via national surveys (i.e. Fancourt et al., preprint), which need to be replicated in LMICs to generate a better understanding of the mental health impact of COVID-19 restrictions. Considering the already limited mental healthcare coverage in most LMICs (Molodynski et al., 2017; Gautham et al., 2020), the pandemic is likely to have caused further shortage of mental health care, whilst simultaneously leading to a rise in the need for this type of care which may likely be overlooked by governments (Filho, Brandli, Salvia, Rayman-Bacchus, & Platje, 2020). This may lead to long-term implications on the well-being of older adults in LMICs, so that urgent action needs to be taken to support them as best as possible in their pandemic-related needs.

Social relationships are vital for good mental wellbeing, and are particularly lacking during the pandemic, thus leading to higher levels of depression (Sommerlad et al., 2021). Feelings of frustration, loneliness, and upset, amongst others, as experienced in older Ugandans in our study support emerging evidence on the impact of the pandemic on older adults in other countries (Hanna et al. submitted; Shrir, Hoffman, Bodner, & Palgi, 2020; Whitehead & Torossian, 2021). To alleviate these negative impacts on mental well-being, connecting remotely with loved ones is vital. Using the phone may not provide the same levels of connection as connection digitally via Facetime or Zoom (Neves, Franz, Judges, Beermann, & Baecker, 2017). However, considering the high levels of deprivation
in older adults in Uganda (Kabuye & Mukasa, 2019) and generally a noted lack of digital literacy amongst older adults (Hill et al., 2015; Seo, Erba, Altschwager, & Geana, 2019), connecting with friends and family remotely is likely very difficult. In fact, this is a clear example of how the pandemic is exacerbating existing inequalities, with a lack of knowledge and skills (digital illiteracy) and lack of economic power to purchase a smartphone and internet access very likely limiting older adults in LMICs to connect with friends and family, thus impacting negatively on their mental well-being. More research is required to fully understand and tackle this digital gap in the time of COVID-19, and to tackle growing inequalities, with older adults in high-income countries being more used to engaging in Facetime and zoom throughout the pandemic (i.e. Giebel et al., 2020b; Whitehead & Torossian, 2021).

Being restricted to the home, unable to go to their farm land or the market and unable to use public transport can lead to physical health deteriorations in older adults. Participants expressed their minimalist lifestyle these days due to the restrictions, not being physically active as much as previously, which can lead to increased levels of frailty and physical weakness. Frailty is a worldwide global health concern for older adults (Ofoti-Asenso et al., 2019). With COVID-19 restrictions apparently increasing physical health problems in older adults, restrictions may cause long-term health implications for older adults, which in turn will increase the costs of health care required. This may be of particular problem in countries where health care is patchy and does not enable everyone to receive the health care they require (Kraef et al., 2020). It is important to therefore establish the indirect long-term implications of the pandemic, and how restrictions are affecting older adults in the long term.

The lack of stimulation during the period of tight public health restrictions, including physical, cognitive, and social, may also contribute to cognitive decline – an area of real concern for older adults which is linked to dementia. Participants raised the issue of the lack of engagement and stimulation, and the boredom and frustration that came with it. Research has highlighted that lack of stimulation and social engagement can be risk factors for developing dementia (Penninkilampi, Casey, Singh, & Brodaty, 2018; Sommerlad, Sabia, Singh-Manoux, Lewis, & Livingston, 2019). Moreover, Mukadam, Sommerlad, Huntley, and Livingston (2019) reported that population-based risk factors for dementia, including education, smoking, hypertension, obesity, and diabetes, were higher in LMICs than worldwide. Therefore, the lack of stimulation resulting from COVID-19-related public health restrictions may potentially lead to even greater risk of developing dementia for older adults living in LMICs. This is a severe public health concern, with over 50 million people worldwide living with dementia, and numbers consistently growing (ADI, 2020). Emerging evidence has further highlighted the apparent faster deterioration and progression of dementia symptomatology in people living with dementia, during the pandemic (i.e. Canevelli et al., 2020; Giebel et al., 2020b). Thus, it is vital for governments to take into consideration the severe burden that restrictions are placing on older adults not only in the present, but also likely the societal impact in the future of potentially rising cases of dementia. Further research is required to follow older adults in LMICs alike to explore whether periods of enforced lockdowns and restrictions, and thus a lack of stimulation, are linked to increased risks of developing dementia.

In light of these negative emotional impacts of the pandemic on older Ugandans, it is also important to highlight how older adults appeared to cope with restrictions and the multiple impacts on their daily lives. Older adults appeared to accept the restrictions as these were in place to protect people. Faith was also an important coping mechanism for older adults, albeit the barriers faced in practicing their faith in social settings in church since the pandemic. Recent research from Birditt et al. (2021) suggests that older adults appeared to cope better with the stressful life changes as a result of COVID-19, whilst younger adults struggled to a greater extent from reductions in socializing. This evidence aligns with our findings to a degree, as older Ugandans seemed to cope with restrictions using different mechanisms, by accepting and using their faith predominantly. This is not to say that older adults were not emotionally affected, and there is an urgent need to provide psychological
support for older adults in LMICs. However, future research ought to explore the psychological impacts of the pandemic not only on older adults living in LMICs, but also younger and working-age adults to have a fuller picture of the psychological effects.

Whilst this qualitative study benefits from rich and varied experiences of the pandemic on older adults’ mental wellbeing, to fully establish the mental health impact of the pandemic, quantitative explorations are required on a larger population-based scale. Moreover, participants in this study were residing in rural parts of Uganda, and experiences of more urban-residing older adults may vary, suggesting further explorations are required.

Conclusions
The pandemic is likely to have lasting impacts on older adults in LMICs, with mental healthcare services already not providing sufficient coverage for LMIC populations prior to the pandemic. This raises the need for mental health services to be more easily available and accessible, for older adults to receive the support and care they may need, and for readily available mental health interventions in the community. This can be aided by longitudinal epidemiological research on the mental health needs of older adults, to provide an overview of the levels of depression and anxiety throughout and post-pandemic.

Clinical implications
- COVID-19 has indirect implications on people’s mental health and well-being.
- Older adults need to receive adequate psychological support to cope with the mental health impacts of the pandemic.
- Findings suggest an even greater need for adequate mental health in lower- and middle-income countries.

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Appendix A. Interview Topic Guide

We are interested to hear about your experiences of how Corona virus public health measures might have affected your daily life.

**Question 1:**
Tell us a little bit about your living situation. Do you live by yourself or with family members?

**Question 2:**
Tell us about a normal day in your life before the Corona virus outbreak please. What did you do, did you go out?

**Question 3:**
How have corona virus related public health measures affected your daily life? Has it stopped you from doing certain things that you used to do?

**Question 4:**
How do you feel about not being able to do certain things at the moment because of the corona virus public health measures?

**Question 5:**
How do you socialize at the moment, in light of the public health restrictions? Are you still able to engage with your family and/or friends?

**Question 6:**
What are your thoughts about the future and corona virus public health measures?

**Question 7:**
Is there anything else you feel we have not discussed, in terms of how the corona virus outbreak has affected your life and...