




# Socioecological Stressors During COVID-19 Among Urban Refugee Youth in Kampala, Uganda: A Qualitative Descriptive Analysis


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## Abstract

Limited studies have examined pandemic-related stressors among urban refugee youth in low and middle-income humanitarian countries (LMICs), such as Uganda. We explored the lived experience of COVID-19-related stressors among urban refugee youth in Kampala, Uganda. We analyzed qualitative data (text messages, WhatsApp chats, photos) collected in an interactive mobile health intervention with 346 refugee youth aged 16–24 in Kampala. Findings revealed stressors across socioecological levels: individual (e.g., financial-related distress), social (e.g., limited social interactions), community (e.g., food insecurity), and policy (e.g., unprecedented lockdowns). Findings can inform social work organization pandemic preparedness strategies for economic empowerment and social cohesion with youth.

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## Introduction

The COVID-19 pandemic had devastating global effects on the wellbeing of populations in low- and middle-income countries (LMICs) such as Uganda. Uganda confirmed its first case of COVID-19 on March 21, 2020, and the number of cases continued to increase steadily through 2021 (Mukasa et al., 2023; World Health Organization, 2024). To curb community transmission of the virus, the Government of Uganda enforced a range of social distancing measures, including closing public institutions, prohibiting mass gatherings, issuing stay-at-home directives, and imposing travel restrictions (Aceng, 2020; Johns Hopkins University & Medicine, n.d.). Despite Uganda's early and strategic responses in controlling the spread of the virus (Lumu, 2020; Sarki et al., 2020), forcibly displaced populations in Uganda were disproportionately impacted by COVID-19 and faced unintended socioeconomic and health consequences (Nuwematsiko et al., 2022) due to economic and legal precarities, as well as insufficient social support (Corburn et al., 2020; d'Errico et al., 2024).

As of 2023, Uganda hosts over 1.5 million refugees, making it the largest refugee-hosting country in Africa (United Nations High Commissioner for Refugees, 2021, 2023). Kampala, the capital, accommodates over 93,000 refugees, with youth aged 15–24 accounting for more than a quarter (26%) of the refugee population (United Nations High Commissioner for Refugee & Government of Uganda, 2022). Many of Kampala's refugees reside in informal settlements (Samer & Innocent, 2020) and experience low socioeconomic status,

which heightens mental and sexual health risks (Logie, Okumu, Admassu, MacKenzie, et al., 2024; Logie, Okumu, Admassu, Perez-Brumer, et al., 2024). Even prior to COVID-19, mental health challenges were a persistent problem, as urban refugee youth in Kampala experienced a high prevalence of depression before 2020, which continued throughout the year (Logie et al., 2022).

COVID-19 exacerbated healthcare and socioeconomic disparities among vulnerable groups (Andraska et al., 2021; Mengesha et al., 2022), intensifying issues such as discrimination, stigma, poverty, and unemployment among displaced populations (Bukuluki et al., 2020; Dubey et al., 2020). Socioeconomic and psychosocial impacts of COVID-19 on urban refugee adults in Uganda have been identified (Bukuluki et al., 2020). For instance, among Congolese refugee adults in Kampala, psychosocial stressors included fear of COVID-19, isolation, and loss of social support (Bukuluki et al., 2021). Though effective in containing COVID-19, Uganda's policies, including prolonged shutdowns, lockdowns, curfews, and restrictions of business operations (Johns Hopkins University & Medicine, n.d.), ultimately compromised livelihoods (Sseviiri et al., 2022) and exacerbated psychological distress among Kampala's urban refugees (Bukuluki et al., 2021). Specifically, COVID-19 policies in Uganda contributed to reduced income, limited access to education, and inadequate healthcare (Altare et al., 2022; Hamiza et al., 2022; Logie et al., 2020; Nuwematsiko et al., 2022).

While evidence documents psychological impacts of the pandemic on refugee adults, less is known regarding COVID-19-related stressors among urban refugee adolescents and youth. To address these knowledge gaps, we conducted a qualitative descriptive analysis of data collected from an interactive mobile health (mHealth) intervention to explore lived experiences of stressors during the COVID-19 pandemic among urban refugee youth in Kampala, Uganda.

## Theoretical Framework

This study applied a modified social-ecological model (SEM) that emphasizes the interplay between social and ecological systems across multi-level influences (e.g., individual, social, organizational, community, and public policy) on individual health (Baral et al., 2013; Bronfenbrenner, 1979; McLeroy et al., 1988). Since our findings indicated a strong intercorrelation between factors at the institutional and community levels, we combined those into a single level, yielding a four-level structure of the SEM: *Individual factors* concern individual knowledge, attitudes, and skills; *social factors* include interpersonal and relational factors, including support systems; *community factors* include associations between groups and organizations, sociocultural norms, contexts of advantage/disadvantage, and formal and informal networks; and *public policy factors* encompass local, state, and national policies and laws.

## Methods

### Study Design and Setting

This study employed a qualitative descriptive design (Bradshaw et al., 2017; Doyle et al., 2020), which is well suited for generating a comprehensive, straightforward summary of participants' lived experiences in their own words. This approach is particularly appropriate when data are collected in real-world contexts, such as digital health interventions.

All qualitative data were collected in an 8-week interactive mHealth intervention, *Kukaa Salama* (Staying Safe), during April through October 2021 (Logie, Okumu, Berry, et al., 2021). This intervention aimed to facilitate COVID-19 prevention practices among refugee youth living in informal settlements in Kampala and was nested within an HIV self-testing trial (Logie, Okumu, Hakiza, et al., 2021). Details of *Kukaa Salama* and its effectiveness have been published (Logie, Okumu, Berry, et al., 2024). The mHealth intervention served as

both the platform and the context for data generation, with participants providing qualitative input in response to weekly themes related to stress management and key stressors.

### **Ethical Considerations**

The study obtained ethical approval from the University of Toronto, Mildmay Uganda, and the Uganda National Council for Science & Technology. All participants have provided written informed consent, including those aged 16–17, who were considered mature minors under Ugandan research ethics guidelines. This approach was appropriate, given the minimal-risk nature of the study and the specific context of the population, which included unaccompanied and displaced youth. To ensure age-appropriateness and cultural relevance of the material, the intervention was co-developed with refugee youth and peer navigators (PNs), who contributed to the design and pilot testing of all study instruments.

### **Participants and Recruitment**

Participants were recruited using purposive sampling methods, with the support of 12 trained peer navigators, refugees aged 16–24 with experience as peer educators or community health workers (Logie, Okumu, Hakiza, et al., 2021). Eligibility criteria included: aged 16–24 at the time of enrollment in the Tushirikiane trial, self-identifying as a refugee or displaced person, living in one of five informal settlements in Kampala (Kabalagala, Kansanga, Katwe, Nsambya, Rubaga), speaking one of the study languages (English, French, Swahili, Luganda, Kinyarwanda, Kirundi), and having access to a mobile phone.

### **Data Collection**

Data for the current study were collected through participants' responses in the Kukaa Salama intervention. The intervention was conducted on a web-based SMS platform hosted by WelTel (Lester et al., 2010; van der Kop et al., 2018) and included PN-moderated group chats and multimedia sharing on WhatsApp (Logie, Okumu, Berry, et al., 2021). Specifically, the intervention included three components: (1) a weekly check-in message (asking how they were doing); (2) engagement questions related to the weekly COVID-19 informational SMS; and (3) multimedia sharing (e.g., photos, memes, GIFs) to display practices related to the weekly topics of COVID-19 prevention. Participants voluntarily responded to weekly check-in messages and engagement questions via the WelTel SMS platform and shared multimedia feedback in moderated WhatsApp groups. Both textual and graphical responses were collected, and written informed consent was provided by all participants.

Participants were encouraged to share their experiences regarding stressors and challenges they encountered during COVID-19. The themes of the weekly messages focused on “managing stress/mental health” and “economic stressors.” Examples of engagement questions and prompts for photo sharing include: “What helps you feel better when you feel stress?” and “Send us a photo of a place that makes you feel peaceful or happy.” All persons noting psychological distress were referred to social support and resources via the PN (trained in psychological first aid) and a social worker who offered individual supportive counselling sessions at the collaborating refugee community-based organization.

### **Data Analysis**

We adopted a codebook thematic analysis approach (Braun & Clarke, 2006, 2022; Gleeson, 2011) to analyze textual and graphical data using Dedoose. Non-English responses were translated into English with the help of multilingual PNs. Two experienced qualitative researchers coded independently after reviewing all the textual and graphical responses. The preliminary codes and themes were discussed during team meetings involving senior qualitative analysts, with modifications made based on group consensus. Given the inclusion of multiform data, we addressed the connection, comparison, and combination of meanings between texts and

graphics under the same theme to ensure semantic coherence (Brown & Collins, 2021). Once codes and themes were established through inductive analysis, we proceeded with the deductive process to organize findings, and major themes were categorized in the SEM guiding framework. To provide background on the study sample, participants' sociodemographic characteristics were drawn from the baseline survey conducted as part of the broader intervention.

## Results

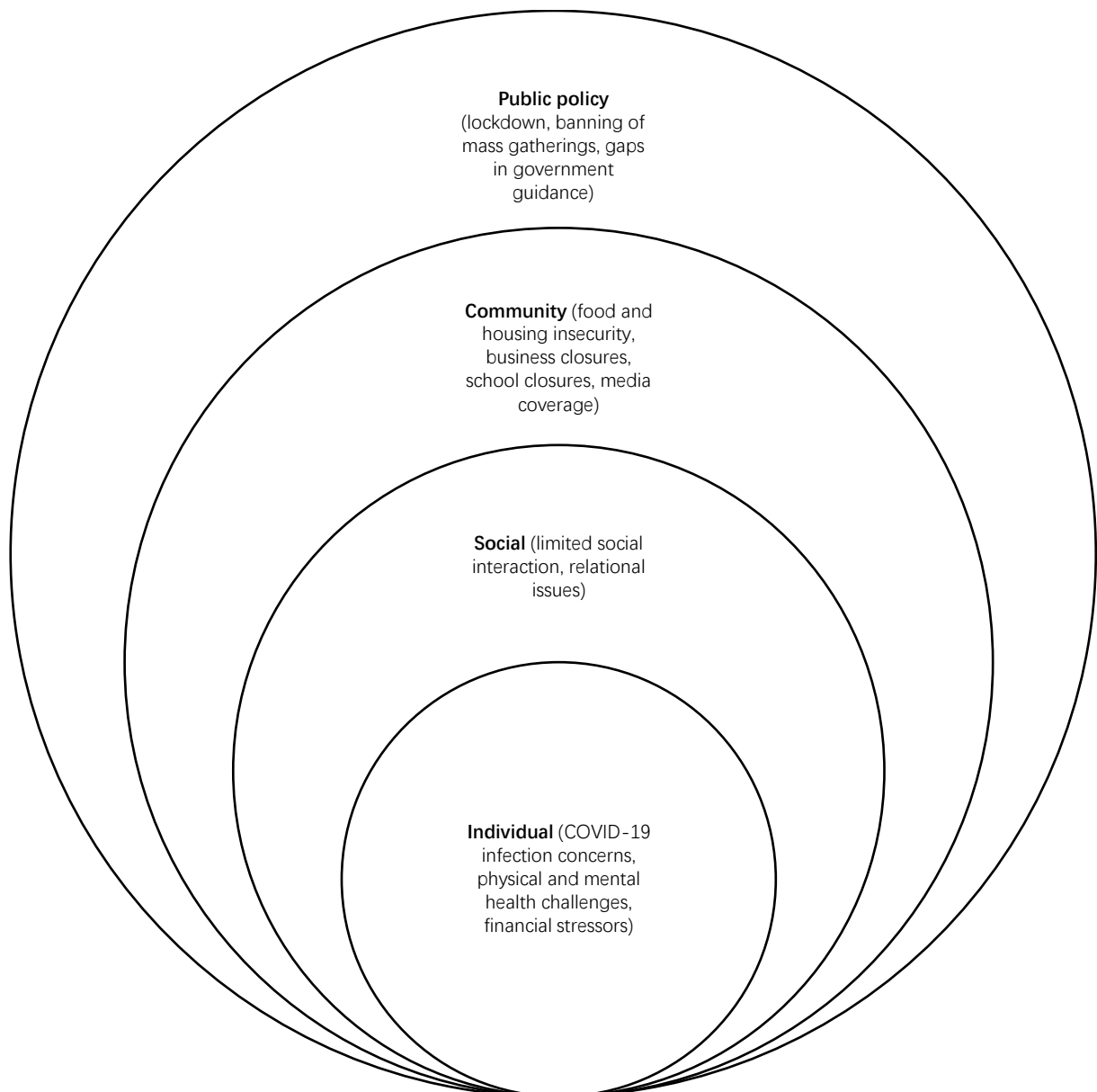
A total of 346 refugee youths were enrolled in the Kuka Salama intervention, including 174 cisgender women (50.3%), 166 cisgender men (48.0%), and 6 transgender persons (1.7%) (see Table 1). The mean age was 21.2; the standard deviation was 2.6.

**Table 1.** Sociodemographic Characteristics of Participants Enrolled in Kuka Salama Intervention Living in Kampala, Uganda (N=346)

| Sociodemographic characteristics            | N (%)      |
|---|------------|
| <b>Gender</b>                               |            |
| Cisgender men                               | 166 (48.0) |
| Cisgender women                             | 174 (50.3) |
| Transgender                                 | 6 (1.7)    |
| <b>Place of birth</b>                       |            |
| Democratic Republic of Congo                | 229 (66.2) |
| Burundi                                     | 59 (17.0)  |
| Sudan/South Sudan                           | 12 (3.5)   |
| Others (Uganda, Kenya, Rwanda, and Somalia) | 46 (13.3)  |
| <b>Settlement</b>                           |            |
| Kabalagala/Kansanga                         | 98 (28.3)  |
| Katwe/Nsambye                               | 103 (29.8) |
| Rubaga                                      | 145 (41.9) |
| <b>Duration of stay in Uganda</b>           |            |
| 1–5 years                                   | 132 (38.2) |
| 6–10 years                                  | 125 (36.1) |
| >10 years                                   | 89 (25.7)  |
| <b>Employment status</b>                    |            |
| No employment                               | 179 (51.7) |
| Student                                     | 78 (22.5)  |
| Employed (paid/unpaid)                      | 89 (25.7)  |
| <b>Highest level of education</b>           |            |
| Less than secondary                         | 106 (30.6) |
| Some secondary                              | 211 (61.0) |
| Secondary school or higher                  | 29 (8.4)   |

Figure 1 illustrates stressors urban refugee youth in Kampala experienced during COVID-19, spanning four socioecological levels: the individual, social, community, and public policy levels. Details of themes and subthemes are presented in the following pages, along with selected quotations and graphics. Identifiers of the quotations include information on the week number (W#) or follow-up (FU#), participant number (#), and participants' gender (M: cisgender men, F: cisgender women, and TR: transgender person) and age.

**Figure 1.** *Stressors Experienced by Urban Refugee Youths in Kampala, Uganda During COVID-19 Contextualized Within a Socioecological Framework*



## Individual Level

The onset and spread of COVID-19 exacerbated existing challenges experienced by refugee youth in Kampala. Individual-level stressors include the threats of contracting COVID-19 and repeated infections, physical and mental health problems, and financial difficulties.

### Threats of Contracting COVID-19 and Repeated Infections

The most immediate individual-level stressor was the risk of contracting the virus. Many participants reported worries stemming from the rapid spread of the epidemic: “I’m not fine, because COVID-19 is so rampant these days” (FU4, #301, F, 20). The repercussions of COVID-19 inevitably led to fear and heightened anxiety, as indicated by one participant: “I tried to test for COVID-19, and my results were negative; maybe [I’ll] retest again. My worry is how to survive such [a situation]” (W6, #237, F, 26).

Some participants recognized the threat associated with repeated contraction and advocated for individuals who had recovered to persist in adhering to all preventive measures: “I would encourage him/her to keep all these measurements of washing hands, keeping distance, wearing mask, eating healthily, and exercising, because the body needs more immunity to fight against COVID-19 and people who are recovering can get sick again” (W7, #20, M, 27).

### Physical and Mental Health Challenges

During the pandemic, most medical resources were prioritized for treatments related to COVID-19 infections, resulting in greater mental distress, extended waiting times, and higher treatment costs for individuals with various physical conditions and emotional problems. Participants with medical needs reported “feeling unwell” (FU2, #236, F, 18), “weakness” (FU2, #57, M, 21), and “bad health” (FU1, #86, F, 18), as they sought medical assistance.

Physical health challenges unrelated to COVID-19 impeded participants’ daily activities, with some participants using the intervention outlets to request assistance. For instance, one participant noted, “I feel the pain that blocks my foot and my hip. [Let me know] if there is any way you can help me” (FU7, #266, TR, 24). This was reinforced by another participant, who requested support in accessing food due to disability: “I’m having trouble finding the things I want. I’d like [your] help find food and get what I need to eat because I’m disabled” (FU7, #122, M, 25).

Many participants indicated emotional and mental health issues during the pandemic. Feelings of frustration and worry were prevalent: “Yes, [living] is hard for most of us” (W5, #184, F, 22); “I’m worried because COVID-19 has disturbed us” (W7, #71, M, 26). Some participants showed discouragement upon realizing that the pandemic persisted despite prolonged control measures, which further contributed to feelings of hopelessness and helplessness: “I live very badly because there’s no help in the face of these things” (W5, #307, F, 21). Several participants exhibited aggravated symptoms, such as depression, and expressed suicidal thoughts: “Do you offer psychosocial support? I need urgent help. I’m currently feeling lonely and suicidal. I can’t bear usings drugs to get relaxed. Thank you. Any calls, emails, WhatsApp texts, or any available counsellors?” (W5, #307, F, 21)

### Financial Difficulties

Most participants revealed significant stress during COVID-19 due to financial difficulties. Figure 2 shows a stack of money (cash) on a table, in response to an “effective coping strategies” question about their self-distress during COVID-19 (W1, #113, F, 23).

**Figure 2.** *Stack of Cash*

Many participants requested financial support (see Table 2). As one participant mentioned: “I feel stressed when my mom has no money to buy food or other house materials ... I feel unstressed if my mom has whatever she needs, like money” (W1, #25, F, 17). Some participants considered earning money as a means of stress relief: “Whenever I’m at work, it helps me to reduce stress, because I’m getting money” (W1, #224, F, 21), and suggested proper management of family finances: “I’ll advise [my family and my friends] to follow the [COVID prevention] SOPs (standard operating procedures), to avoid spending money on things which are not a priority, and to economize their provisions in the house” (W5, #91, F, 22).

**Table 2.** *Financial Distress During the COVID-19 Pandemic*

| Type of message                                   | Example quotations  |
|---|---|
| Directly asking for “help with money”             | SQ: I want you to help me with some money please, because these days I [feel] very bad. Thank you. (FU1, #260, F, 21)<br>SQ2: I’m fine but I want your help; we want money. (W2, #69, M, 26)<br>SQ3: All I love (need) is money. (FU1, #169, F, 22) |
| Emphasizing the issue of “having no money”        | SQ4: I’m poor, I don’t have money, I don’t have money to pay for the house, [and] I’m sick. (FU2, #308, TR, 25)<br>SQ5: Now I’m asking for help; I’m really confused [because] there’s no money to spend. (FU4, #71, M, 26)                         |
| Expressing demands on “financial support”         | SQ6: I need financial help. (FU3, #282, M, 20)<br>SQ7: I’m fine but I need financial aid. (FU6, #162, M, 21)  |
| Highlighting the “broke situation” under COVID-19 | SQ8: We want you to give us money so that our parents can work well because they are broke due to COVID-19. (FU5, #309, M, 21)<br>SQ9: We’re not fine, we’re broke, we need money. (FU4, #167, M, 25)   |

*Note:* SQ = supplementary quotations; W = week number of the interview; FU = week number of the follow-up; # = participant number; participant’s gender (M = cisgender men, F = cisgender women; TR transgender) and age.

## **Social Level**

Interpersonal stressors comprised the dearth of social interactions and worsened relationship dynamics for sexually diverse groups. These stressors impaired the function of social support systems.

### **Limited Social Interactions**

COVID-19 triggered a strong sense of loneliness as refugee youth in Uganda were forced to endure solitude under the strict social distancing regulations. The deprivation of social interactions, physical connections, and interpersonal intimacy compelled participants to “be alone” (W1, #269, F, 22) and left them “at a loss” (W5, #255, M, 23). In comparison to the pre-pandemic period, participants found fewer opportunities to “have time with others” (W1, #158, M, 21), especially friends and peers.

### **Relationship Issues for Sexually and Gender Diverse Participants**

Relational conflicts were elevated for transgender participants, due to compounding familial rejection and social stigmatization. During the lockdown, family conflicts increased among those who experienced familial rejection of their sexual identities, as a consequence of closer physical proximity at home. One participant stated, “I’m not okay at all. I have stress from my family; [they] found out my [sexual] orientation and they’re not happy with me. I’m facing the cases and I feel like going far way” (FU2, #89, TR, 24). Worsening living environments for sexually diverse youth was emphasized by another participant, who said, “The living conditions are getting worse and worse for us LGBTIQ (lesbian, gay, bisexual, trans, intersex, or queer) community” (W5, #261, TR, 23).

## **Community Level**

Stressors at the community level emerged from various organizational sources, including food and housing insecurity, business closures, unemployment and missing start-up capital, school closures and limited access to education, and inadequate sanitation/hygiene facilities and healthcare resources.

### **Food and Housing Insecurity**

Pervasive resource scarcity was a recurring topic in participants’ responses, emerging as one of the most essential community/institutional-level stressors. The outbreak of COVID-19 profoundly affected economic development in Uganda, exacerbating material needs challenges. Food shortages and housing insecurity were identified as predominant issues (see Table 3).

**Table 3.** *Food Shortages and Housing Insecurity During the COVID-19 Pandemic*

| Resource scarcity  | Calling for help (Example quotations)  |
|--------------------|--|
| Food shortage      | <p>Mentioning “lacking food” or “I need food”</p> <p>SQ10: The situation is very bad, we lack food at home. (FU7, #190, F, 19)</p> <p>SQ11: Today’s news is very bad: we’re running out of food and even other things. (FU6, #89, TR, 24)</p> <p>SQ12: Life is not good! We’re not good [in] this way, no food and shelter. (FU4, #165, M, 21)</p> <p>Requesting help from the program to “buy me some food”</p> <p>SQ13: COVID is still going on. Now I’d like you to help me with the eggs, the mask, and also the food. Thank you. (FU4, #221, M, 18)</p> <p>SQ14: I’m asking you to help me because I have no money for food. I’m begging you to help me! (FU1, #71, M, 26)</p> <p>Showing the situations of “hunger and starvation”</p> <p>SQ15: At the moment I’m not at home, but I’m alive and hungry... as if everyone’s money is missing. (FU7, #153, M, 24)</p> <p>SQ16: I’m safe, but the problem is that everyone [in my] house is hungry. I need your help. (FU3, #177, F, 25)</p> |
| Housing insecurity | <p>Reporting “no/need money for rent”</p> <p>SQ17: I’m not okay because I have no money to pay for the house. If you can help me, I would greatly appreciate it. (FU5, #69, M, 26)</p> <p>SQ18: We ask you to help us because now we are in a bad situation. We’re not working, and the money for the house is missing. (FU5, #7, M, 24)</p> <p>Asking for help from the program to “pay my rent”</p> <p>SQ19: I want to ask you to help me with the money to pay the house rent, because you know, they have stopped me from working. (FU6, #11, M, 25)</p> <p>SQ20: Those of you who [can] help me with the money for the house. I have debt. (FU2, #240, F, 24)</p> <p>Expressing worries due to the “urges from landlords”</p> <p>SQ21: I’m struggling with where we [can] live. We’ve been evicted from the house. Sorry, I need help. (FU2, #269, F, 22)</p> <p>SQ22: I’m not fine because the landlord is chasing me for the house money. (FU4, #69, M, 26)</p>                           |

*Note:* SQ = supplementary quotations; W = week number of the interview; FU = week number of the follow-up; # = participant number; participant’s gender (M = cisgender men, F = cisgender women; TR transgender) and age.

Food shortage was a significant concern during the pandemic. Figure 3 shows participants sharing food with each other, in response to a question on challenges experienced during COVID-19 (W5, #280, F, 22). They expressed worries about sources of food during the lockdown with closure of most businesses: “The lockdown is very disturbing, [as] there’ll be no food” (FU7, #281, F, 24); “They’re (the shops) closed; we have no power, no money for house, and no food” (FU6, #308, TR, 25). In addition, the increasing cost and existing financial difficulties made food unaffordable: “The state of being wrong is bothering us in this country; we don’t have enough money to pay for the house. How can we [even] buy food?” (FU3, #134, F, 23) Restrictions on

movements posed another challenge to accessing food, with one participant requesting, “I want you to help us with food because they locked us in the house” (FU7, #179, M, 18).

**Figure 3.** *Participants Sharing Food*



Housing insecurity added to the stress, with some participants reporting an absence of shelter during COVID-19. One wrote, “I have a problem with a place to live... I want [your] help” (FU2, #306, TR, 19). The insecurity of housing was heightened with a lack of income generating activities, as one participant said: “I’m not fine because of lockdown; we’re very bad, [as] we have nothing to do to pay [the rent]” (W7, #68, M, 26). Some participants expressed fears over losing their housing as landlords threatened eviction, with one writing,

My friends, I’m not good because we have no money to pay for the house... landlord is [urging us] to pay the money for the house. I don't know how we'll be able to pay [for] the house... the income is important to us. (FU7, #118, F, 20)

### **Business Closures, Unemployment, and Missing Start-Up Capital**

Refugee youth in Kampala experienced extensive business closures during COVID-19. They reported that such large-scale shutdowns made their lives “more difficult” (FU3, #281, F, 24), “very bad” (FU4, #203, M, 18), and full of “suffering” (FU6, #200, M, 24). The major impacts of business closures included the inconvenience in daily life, difficulty in organizing commercial activities and, more essentially, the diminished opportunities for engaging in socioeconomic activities. Figure 4 shows the closure of a restaurant with no customers, in response to a question on major challenges during COVID-19. (W5, #132, M, 21)

**Figure 4.** *Restaurant Closure During COVID-19*

Table 4 depicts the consequences of business closures on jobs and work. Participants faced unemployment and a substantial decrease in job opportunities. One participant asked, “What’s wrong with Kampala in COVID? There’s no work” (FU6, #68, M, 26). This was further emphasized by another participant: “COVID-19 has caused the closure of many things, especially the jobs and businesses of which we’re victims!” (W5, #200, M, 24) Some participants intended to initiate their own businesses, but the lack of start-up capital was a significant barrier, with one noting, “I have a small project to sell clothes, but [how to get] capital is still an issue” (FU3, #304, M, 22).

**Table 4.** *Consequences of Business Closures During COVID-19*

| Consequence of business closures | Example quotations   |
|----------------------------------|--|
| Unemployment                     | SQ23: They have restored the lockdown of us refugees; things are going to be tough as most of us are jobless. We hope that you’ll think about us. (FU4, #91, F, 22)  |
| Layoff                           | SQ24: Everything has gone opposite (negative). [I got] laid off from the small job I had, and now I’m hustling. (W1, #237, F, 26)  |
| Commuting restrictions           | SQ25: In this kind of lockdown, I need support because I’m staying home and I [can’t] get to work in the town now. (FU5, #20, M, 27)<br>SQ26: I wanted to ask you to help me with the money to pay the house rent because you know, they have stopped me from work. Thank you. (FU6, #11, M, 25) |

*Note:* SQ = supplementary quotations; W = week number of the interview; FU = week number of the follow-up; # = participant number; participant’s gender (M = cisgender men, F = cisgender women; TR transgender) and age.

### **School Closures and Limited Access to Education**

Many refugee youths expressed a strong desire for studying, including both traditional education and vocational training. They believed that acquiring knowledge and skills not only improved their career prospects but also facilitated personal growth, financial security, and happiness in life. As one participant put it,

I need to improve my lifestyle by learning a new practical work (skill). [I want to] do business so that I can be able to pay my rent. I'm really craving to study like crazy; there's nothing in this world can make me happier than studying, [because] my dream would come true. (FU3, #20, M, 27).

Nevertheless, COVID-19 interrupted educational opportunities due to closure of schools. Students were asked to stay at home, which they found “hard” (FU4, #202, F, 21) and which made them feel “so down” (FU4, #257, M, 20). As one participant expressed it, “We're feeling so bad, bored, also lonely, because school is closed today as well as churches; we also feel like spending the day sleeping” (FU4, #303, M, 16). Some participants also mentioned their inability to pay for school, with one participant describing the impact of this on their mental health:

[We have] no money for school fees and no source of income because we live alone. [We have] no parents and no support. Sometimes we feel like killing ourselves because of life. Please help us, I'm begging; we're tired of this life. Please, please, please. (FU5, #87, F, 17)

### **Inadequate Sanitation/ Hygiene Facilities and Healthcare Resources**

Participants suggested that the rapid spread of COVID-19 overwhelmed existing healthcare systems and led to a scarcity of medical supplies. Some participants reported an urgent need for sanitation and hygiene products to protect themselves against the virus, such as “mask” (FU3, #57, M, 21), “soap” (FU7, #237, F, 26), and “sanitizer” (FU7, #21, F, 24). Several participants elaborated on the lack of healthcare resources and essential health services besides COVID-19 response interventions: “I'm not even well; my body feels bad, and I don't have access to get any medicine” (FU2, #84, M, 24); “We're facing poverty, lacking healthcare services, and other problems” (W8, #308, TR, 25).

### **Public Policy Level**

Stressors at the public policy level included the unprecedented lockdown, banning of mass gatherings, and gaps in government guidance.

#### **The Unprecedented Lockdown**

The enforcement of lockdown was perceived as one of the powerful stressors among most participants, as shown in Table 5. The lockdown led to uncertainty among participants: “We don't know what to do” (FU7, #134, F, 23); “I'm trying to find out what [to] do in this situation” (FU6, #90, M, 27). Some participants did not view the lockdown as a successful solution and were concerned for the future, with one noting, “The problems that I exposed to you are still not solved. We are in lockdown and still fear what will happen in the future” (FU6, #91, F, 22).

Participants expressed concerns about the lockdown impacting financial security, with remarks such as, “If there's no money in this lockdown, what'll we do? I don't have [any ideas]” (FU4, #160, F, 23). Food security was an additional worry: “I'm going to enter the lockdown; how are we going to live, and how are we going to eat?” (FU6, #134, F, 23) Refugees in extremely difficult conditions who attempted to find jobs and sustain their lives by moving around were deemed non-compliant with the laws and were penalized. One participant attested, “I want all the help because life becomes very difficult due to the confinement. There're many people who went to search for [resources/opportunities] in the upper villages, [but] they're locked up (arrested)” (W6, #146, M, 20).

**Table 5.** *Distress Due to the COVID-19 Pandemic Lockdown Policy*

| Descriptions of distress<br>(from mild to severe) | Quotations calling for help   |
|---|---|
| Treating me not well (FU6, #302, F, 21)           | SQ27: I would like assistance from you during this tough time of COVID-19 lockdown. (FU7, #189, M, 21)  |
| Bothering us (FU7, #134, F, 23)                   |   |
| Making things harder (FU5, #91, F, 22)            | SQ28: I want help with food because we are in lockdown. Thank you. (FU7, #229, F, 21)   |
| Affecting us badly (FU5, #303, M, 16)             |   |
| Very bad (W7, #68, M, 26)                         | SQ29: [We are under] lockdown again. I currently have no work, no food, and other basic needs, also worried about my house rent. Any help [or] support is appreciated. (FU6, #237, F, 26) |
| Very disturbing (FU7, #281, F, 24)                |   |
| Suffering (W2, #162, M, 21)                       | SQ30: I'm not fine because of COVID; we are in lockdown, [and] to get food and rent becomes very difficult for us. Please [give us] some help. (W7, #295, F, 18)                          |
| Hindering me in all (FU7, #260, F, 21)            |   |
| Killing us (FU4, #257, M, 20)                     |   |

*Note.* SQ, supplementary quotes; W, week number of the interview; FU, week number of the follow-up; #, individual number; participants' gender (M: cisgender men, F: cisgender women; TR: transgender), and age.

### **Banning of Mass Gatherings**

Participants highlighted specific measures that significantly hindered their daily lives, including the banning of mass gatherings (e.g., communal activities, religious gatherings, and sporting events). The restrictions on almost all public activities, made participants feel “bad, bored, lonely” (FU4, #303, F, 16), and even “suffering” (FU6, #200, M, 24).

### **Gaps in Government Guidance**

Despite a series of tough measures to control the pandemic, certain participants revealed dissatisfaction with the action of the government, citing ineffective management, with one indicating, “There is a monitor crisis” (W5, #211, M, 27). Another suggested the absence of practical guidance: “[Effective management] depends on the law of the country” (W1, #7, M, 24). Several participants showed disappointment directly towards the leading administrators: “The leader can't do anything [to solve] the matters of COVID” (W3, #213, M, 17); “We're not fine because what president said [would] kill us” (FU4, #257, M, 20).

## **Discussion**

Our study found that COVID-19 profoundly affected refugee youth in Kampala through increasing stressors at the individual, social, community, and public policy levels. Our findings provide insights into socioecological factors shaping refugee youth's wellbeing and can inform mental health interventions and public policy in future pandemics.

Our findings expand on prior research on individual-level stressors among urban refugee youth in Kampala during COVID-19. Consistent with previous findings, fear of COVID-19 was a major concern among urban refugees in Kampala, reflecting uncertainty that may stem from distrust and unclear communication (Bukuluki et al., 2021). Financial distress during COVID-19 has been documented among urban refugees across low- and middle-income countries (LMICs) in Africa, including Uganda (Bukuluki et al., 2021),

Rwanda (Yaxley, 2020), and Kenya (Oyekale, 2022). Ongoing financial hardships may have exacerbated stress and depressive symptoms in refugee populations during the pandemic (Fouad et al., 2021; Liddell et al., 2021), underscoring the need for financial support and poverty-reduction interventions.

An important finding was sexual- and gender-minority-specific stressors at the social level. While prior reviews have explored family rejection and social stigma among LGBTQ youth in high-income countries (Damian et al., 2023; Salerno et al., 2023), few have assessed these issues in LMICs during the pandemic. Yet COVID-19 exacerbated preexisting vulnerabilities among LGBTQ persons in our study, reflecting increasing stigma, discrimination, and violence (Camminga, 2021), perhaps due to increased familial conflict from disrupted privacy (Baird et al., 2020) and re-traumatization (Couch et al., 2021), which has been documented with LGBTQ persons in other settings.

Our findings reinforce prior research on community-level stressors among urban refugee youth. Prior quantitative research with urban refugee youth in Kampala revealed significant associations between food insecurity and depression during COVID-19 (Logie et al., 2022). Urban refugee populations in Uganda were excluded from government food distribution amid the pandemic (Bukuluki et al., 2021). This threatened the refugees' well-being and coping capacities (Ali Mohamed et al., 2021; Bukuluki et al., 2020). Educational and employment opportunities also declined with refugee youth in Uganda during the pandemic, mirroring earlier findings documenting high prevalences of disrupted education, reduced income, and unemployment among non-refugee informal settlement residents in Kampala (Nuwematsiko et al., 2022).

At the public policy level, we found urban refugee youth in Kampala were particularly distressed by lockdowns during COVID-19. This finding expands on the emotional responses (e.g., hopelessness) to the strict social distancing policies, in addition to the profound socioeconomic and psychosocial effects identified in prior research with urban refugees and persons in Kampala's informal settlements (Bukuluki et al., 2020; Nuwematsiko et al., 2022; Sseviiri et al., 2022). Lockdowns disrupted access to support networks, i.e., peers (Bukuluki et al., 2021; Couch et al., 2021), leading to the loss of social support, increased anxiety, and elevated mental health risks.

## **Strengths and Limitations**

There are several study limitations, including conducting the intervention during only one time period during the pandemic and thus missing documentation of changes across different phases of COVID-19. Second, the non-random sample limits the generalizability of our findings. Participants enrolled in a COVID-19 study may exhibit greater resilience and coping capacities, as well as higher health literacy, potentially leading to more adaptive responses and lower psychological distress. Third, although most urban refugees have mobile phone access (United Nations High Commissioner for Refugees, 2016), requiring mobile device access may have excluded the most marginalized youth affected by the digital divide.

Despite these limitations, our study is unique in applying the socioecological model (SEM) to assess lived experiences of pandemic-related stressors among urban refugee adolescents and youth in Kampala. Our findings reveal this conceptual framework is relevant for understanding complex, multi-level pandemic-related impacts to inform future pandemic preparedness. The multimedia data, collected via a web-based mHealth intervention, provided multiple data sources and strengthens the robustness of findings.

## **Conclusions**

Our findings of socioecological pandemic stressors among urban refugee youth in Uganda can inform responses to future public health crises. Participants' feedback highlights long-term and youth-specific

harmful impacts of policies such as lockdowns, school closures, and refugee exclusion from government food aid. Incorporating refugee youth voices in policy decisions can advance age-appropriate and contextually appropriate responses.

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