ORIGINAL RESEARCH

# The Lived Experiences of Individuals and Coping Strategies in the Context of Internet Gaming Disorder: A Qualitative Study Within Higher Education Setting in Uganda

Viola Nalwoga [iD] [1,2], Simon Kizito [1], Eustes Kigongo [iD] [3], Praise Atwine [1], Amir Kabunga [iD] [2]

[1]Department of Community Psychology and Mental Health, Makerere University, Kampala City, Uganda; [2]Department of Psychiatry, Lira University, Lira City, Uganda; [3]Department of Environmental Health and Disease Control, Lira University, Lira City, Uganda

Correspondence: Viola Nalwoga, Department of Community Psychology and Mental Health, Makerere University, P.O Box 7062, Kampala, Uganda, Tel +256751506962, Email morriolatwina@gmail.com

**Background:** Internet Gaming Disorder (IGD), recognized as a mental disorder in both the Diagnostic and Statistical Manual (DSM-5) and International Classification of Diseases (ICD-11), poses significant threats to physical, social, and mental well-being. This study aims to delve into the experiences of individuals grappling with IGD.

**Methods and Materials:** The study employed an interpretive phenomenology, conducting interviews with 10 graduate students at Makerere University. Participants were purposefully sampled until data saturation was achieved during interviews, which took place between May and July 2023. An interview guide facilitated data collection (Supplementary File 1), and thematic analysis was manually applied for data interpretation, utilizing intuition and imaginative approaches.

**Results:** The findings revealed that the majority of participants started gaming during childhood, starting with offline games. Exposure to gadgets and games, idle time, and stress emerged as key triggers for IGD. Participants reported experiencing sleep deficits, deteriorating interpersonal relationships, declining job performance, unhealthy eating habits, academic challenges, and wastage of money and time. The study also identified strategies employed by participants to mitigate their gaming behaviors, such as refraining from purchasing data, seeking support from friends, and uninstalling the game app, although relapses were common.

**Conclusion:** The study highlights a global pattern of early initiation into gaming, emphasizing the need for early intervention and preventive measures. Factors such as easy accessibility and affordability of gaming platforms, idleness, and stress play significant roles in motivating internet gaming, contributing to a higher prevalence among the studied population. The research underscores the adverse effects of IGD on students, affecting academic performance, interpersonal relationships, and job performance. Notably, participants demonstrate agency in addressing IGD through practical coping strategies, including controlling data access, seeking social support, and uninstalling games. These coping mechanisms provide valuable insights into the complex nature of addressing IGD and form a basis for developing targeted interventions and support systems within the higher education setting in Uganda.

**Keywords:** internet gaming disorder, lived experiences, coping strategies, qualitative study, higher education setting

## Introduction

Internet Gaming Disorder has gained increasing recognition as a contemporary mental health concern, characterized by excessive and compulsive engagement in online gaming activities to the extent that it disrupts the gamer's daily life.[1] Worldwide, internet gaming has rapidly increased,[2] with the global prevalence of IGD reported to be 3.05%,[3] and Africa notably affected at a rate of 22.4%.[4] As the prevalence of digital technologies continues to grow globally, so does the impact of problematic gaming behaviors on individuals' lives. Statistics on African adolescents indicated a higher prevalence of IGD compared to the rest of the world. Literature from some African countries including South Africa, Senegal, Ivory Coast, Morocco, Tunisia, Nigeria, Rwanda, and Gabon show the prevalence of IGD to be 30%.[4] Another

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study done in Tunisia revealed that 37.4% of Tunisian adolescents had IGD.[5] Additionally, a study carried out in Nigeria revealed that up to 51% of people have IGD.[6] Based on available data, it is evident that the proportion of this newly proposed disorder is higher in Africa compared to the rest of the world. The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) and the International Classification of Diseases (ICD-11) have officially acknowledged IGD as a mental health condition, reflecting its significance in the field.

Internet gaming disorder is now a major social issue and a focus of extensive research.[2] Addictive gaming is detrimental to a person's physical, social, and mental health.[7] Like conventional forms of gambling, online gambling games include a financial element that is entwined with risk and uncertain results.[8] Griffith proposes a comparison between substance addictions such as heroin addiction and online gaming addiction, citing parallels in brain features between immersed players and drug users as evidenced by Griffiths.[9] In cases of technological addiction, electronics play a vital part in the thoughts and feelings of the addicted person, favorably impacting their mood.[10] Neurobiologically, gaming addiction mirrors chemical addiction, with elevated dopamine, norepinephrine, and endorphin levels.[11] DSM-5 outlines nine criteria for diagnosing IGD, such as preoccupation, withdrawal symptoms, tolerance, unsuccessful control attempts, loss of interests, continued excessive use despite problems, deception, using games to escape negative moods, and jeopardizing significant aspects of life.[8] Research on IGD suggests an association with psychiatric disorders, including dissociation and mood disorders like depression and anxiety.[8]

Problematic internet gaming is more widespread among university students, and fluctuating rates have been reported in different countries.[12] The incidence in Malaysian medical students varied between 36.9 and 81%, but the prevalence in American community university students was 25.1%.[13] The incidence of internet addiction among Iranian university students was found to be 40.7%, whereas Japanese university students reported rates ranging from 38.2% to 63.5%.[13] The frequency of internet addiction among students at Lebanon University was 16.8%, but that of undergraduate students in Nepal was 35.4%.[13] Students at Jordan University reported a prevalence of internet addiction of 40%, whereas prevalence rates in different regions of India ranged from 19.85% to 42.9%.[13] The incidence of internet addiction or problematic internet use among Greek University students ranged from 12.7% to 34.7%.[14] Students in Turkey reported that 1.6% of them had an online addiction. People who play video games on the internet do badly at job as well as in school.[9,15–17] Internet gaming disorder affected the participants' sleep patterns, many studies reported on it.[16,18–22] The presence of IGD was significantly linked to those who used smartphones.[23]

Gaming frequently functions as a passive coping mechanism in response to unpleasant emotions and/or real-life challenges.[24,25] It is thought that the development of disordered gaming is a likely result of inappropriate coping with psychological pain.[26] A large body of empirical research continually shows a favorable correlation between increased psychological distress and IGD.[16,27,28] More specifically, among those who struggle with addiction, escapism and avoidance motivations that are positively connected with IGD tendencies are commonly mentioned as important elements driving online gaming.[25,29] This study explored the protective influence of coping resources to IGD tendencies among university students in order to break the harmful cycle of psychological distress and IGD.

According to a particular study, social and personal resources like mindfulness, coping flexibility, and social support can help people cope with distress more effectively and improve their psychological well-being.[30] In the context of gaming, it is expected that these resources would exceed the requirements during assessment procedures, enabling players to select more flexible, alternative coping mechanisms rather than binge gaming. However, empirical exploration of their relationship with IGD especially among the students is scarce.

Problems with internet gaming among college students may have a detrimental impact on people's outlook on life, their ability to learn, how they interact with others, and how they develop their sense of self.[31] IGD's unclear nature and potentially harmful effects highlight the need for more clarification and understanding of the phenomenon.[32] In the context of higher education in Uganda, where access to digital technologies is expanding, there is a pressing need to understand the experiences of individuals grappling with IGD. The academic environment, characterized by stress, academic pressures, and the newfound independence of university life, may serve as a unique backdrop for the development and manifestation of gaming-related issues among students. This qualitative study explored the lived experiences and coping strategies employed by individuals with IGD within the higher education setting in Uganda. Through a comprehensive exploration of these experiences, the study aims to provide valuable insights for intervention strategies, mental health support, and policy development tailored to the specific context of higher learning institutions in Uganda.

## Methods and Materials

### Study Setting

The study was carried out in Makerere University in the College of Humanities and Social Sciences among male and female graduate students. Makerere University is found in Kampala, a capital city of Uganda, a country found in East Africa. The University is located 5km from the City Centre.

### Study Design

This was a qualitative study that was conducted from May to July 2023 using an interpretive phenomenological design which relied on the spoken words of the interviewees. Interpretative Phenomenological Analysis (IPA) is concerned with how individuals interpret and make meaning of their experiences.[33] In this study, it involved understanding how individuals within the higher education setting in Uganda experience internet gaming disorder. This means exploring how participants understand and interpret their own gaming habits, the impact of IGD on their lives, and how they interpret their coping strategies. This method is well suited to in-depth studies with a small number of participants, where the inquiry is based on a careful examination of human experience.

### Study Participants and Sample Size Estimation

The study focused on graduate students at Makerere University specifically those who had not exceeded the time of completing the programme. A total of 10 participants who meet the criteria of internet gaming disorder were engaged in the study. The sample size of 10 fell within the accepted number of participants for IPA study.[34] The 10 participants were deemed to provide a particular experience of the phenomenon being investigated.

### Sampling Criteria

The participants in this study were selected using a purposive sampling method, specifically targeting individuals within the higher education setting in Uganda who self-identified as experiencing challenges related to internet gaming. Clinical interviews were conducted to assess IGD based on the criteria outlined in the DSM-5. The interview findings were confirmed by administering a tool named internet gaming disorder short form 9 (IGD-SF9), those who turned to be having IGD were included in the study.

### Data Collection Instruments

An interview guide was used during the in-depth, in-person physical interviews by the researcher to gather information from the participants. This made it possible for the researcher to get thorough participant data. Additionally, the in-depth interviews were merged with extensive field notes and observations to create a thorough interpretation of the phenomenon under study. The interview guide was used to collect data about the experiences of people with IGD. The researcher designed an interview guide to be used while collecting data from the participants during the interviews. A pilot study was done to ensure that the questions in the interview guide give the right response to the study question.

### Data Collection Procedure

The researcher interviewed participants who gave an informed consent. The purpose of the study, the methods of data collection, and the time frame for the study were explained to the participants before data collection. Informed consent forms were hand-delivered by the researcher to the participants. Appointments for interviews of different participants were made and the researcher used the interview guide during the interview sessions. The interviews were conducted in a lecture room that was designated by the Dean of school of psychology, and lasted for about 30 to 45 minutes. The interviews were audio-recorded with participants' awareness and permission, and later transcribed verbatim. All participants were thanked for their time after the interviews.

## Data Analysis

The data was manually and thematically examined. Thematic analysis is a tool for studying qualitative data that involves looking through data collection to find, examine, and report recurring patterns.[35] The researcher used intuition and imaginative data interpretation to make sense of the empirical data that was collected. Through an audit approach, the analysis was first done by VN after which was reviewed by SK and PA. The first stage of analysis comprised reading through the transcripts several times to familiarize with the information. The second stage involved inductive coding of all transcripts hence the generation of unique codes. The third stage involved combining similar codes and categorization, and lastly formation of themes from the categories. The themes emerging from the codes were discussed and agreed upon by all the authors. The results were also discussed with the study participants to ensure that it is the representation of the information they provided. The study's methodology, findings, and design are all clear, accessible to the public, repeatable, and devoid of bias. The consolidated criteria for reporting qualitative research were strictly followed.[36] All these helped to ensure credibility and trustworthiness.

## Ethical Approval and Consent to Participation

The study complies with the guidelines delineated in the declaration of Helsinki. Ethical clearance was obtained from the Research Ethics Committee of Makerere University School of Health Sciences (MAKSHSREC-2022-391). Administrative permission was obtained from the College of Humanities and Social Science at Makerere University. Verbal and written informed consent were obtained from all participants, including publication of anonymized responses. The researcher ensured participants' confidentiality through use of passwords on the softcopy data, use of codes in the data, and proper storage of the hardcopy study materials.

## Results

### Background Characteristics

Table 1 shows that the majority of the participants were predominantly females (Seven), with three male participants. The majority were 25 years old. Most of the participants were Catholics followed by the Pentecostal born again Christians.

### Themes Identified

The study aimed to explore the lived experiences of individuals with IGD and coping strategies used among graduate students in higher institutions of learning. Three broad themes emerged from the analysis and these include the onset and triggering factors of gaming, the effects of engaging in gaming, and strategies used to reduce gaming. These broad themes were further broken into sub-themes presented in Table 2.

### Theme One: Onset and Triggering Factors of Gaming

The analysis conducted generated a range of factors that participants explained to cause their gaming practices. From the codes generated, four sub-themes including childhood, exposure to gadgets and games, being idle, and stress. These triggering factors acted as predisposing factors at a certain point in time causing the onset of gaming.

**Table 1** Biodata of Participants

| Identifier | Sex | Age | Religion |
|---|---|---|---|
| P1 | Female | 25 | Catholic |
| P2 | Male | 42 | Pentecostal |
| P3 | Female | 25 | Pentecostal |
| P4 | Female | 25 | Anglican |
| P5 | Female | 27 | Pentecostal |
| P6 | Male | 25 | Catholic |
| P7 | Female | 25 | Catholic |
| P8 | Male | 34 | Catholic |
| P9 | Female | 42 | Catholic |
| P10 | Female | 27 | Catholic |

**Table 2** Themes Identified

| Codes | Sub-themes | Major themes |
|---|---|---|
| "I started playing games when I was young…"<br>"I got my new phone after like four…"<br>"They help me pass the time when…"<br>"They help when you are stressed." | • Childhood<br>• Exposure to gadgets and games<br>• Being idle<br>• Stress | Onset and triggering factors of gaming |
| "And maybe when I was here at school for…"<br>"I could play games up to 3:00 am when…"<br>"I used to pay a lot of attention on my phone like in that people could be talking to…"<br>"Ever since I have been failing to do productive things…"<br>"It's costly because I would put data for…"<br>"My eating I could say I had bad eating behaviors because…"<br>"I have wasted a lot of time, ignored the things…" | • Academic challenges<br>• Sleep deficits<br>• Decline in interpersonal relationships<br>• Declined job performance<br>• Money consumption<br>• Poor eating habits<br>• Time-consuming | Effects of engaging in gaming |
| "Not buying data because."<br>"I began to reach out to friends…"<br>"You make sure you uninstall…" | • Not buying data<br>• Reaching out to friends<br>• Uninstalling the game Apps | Strategies used to reduce gaming |

## Childhood

From the findings of the study at the age of three years, participants were exposed to games and were active in games. Other participants started while they were in their primary level but all of the participants reported seeing adults playing these games and they also requested for the phones to try out.

> I started playing games when I was young on my mother's phone and visitors' phones like that. By the age of three before even my parents owned a smartphone. (P7)

> I was probably 8 years old when I started gaming. We used to have a small Nokia phone for kids. When the parents were not there they could call and then we answer. So that phone had snake xenzia and bounce. We played bounce even kids in the neighborhood were playing bounce but for us, we were ahead (P1)

## Exposure to Gadgets and Games

Exposure to gadgets and different kinds of games led all of the participants to engage in playing games. Some phones had games already downloaded which was tempting to participants and therefore they played them. Others paid some money to access the computers and played as much as they could afford to pay.

> I got my new phone after like four or five months of not having a smartphone. So, when I got it every day every time just know I would have data for candy crash (P1)

> That is when I had access to a smartphone which was personal so I could do anything with it (P4)

> In my form two, I was active in games. Those days we had cafes. You go to cafes, sit there play games. I started with the draft. Draft was fun on those computers. You pay for 30 minutes, one hour. You pay 500 for 30 minutes, 1000 for one hour. The 1500 for $1_{1/2}$ hours like that (P6)

Additionally, access to free games also contributed to the gaming activity. Participants downloaded free games from the Google Play Store though other participants bought some games but the majority played free games, mainly offline games.

> These games are free on the Google Play Store and I do not know maybe there are others that are for buying but this particular one I have are free games.(P7)

## Being Idle

Some participants reported turning to games when they ran out of things to do. As participants claimed that they were escaping boredom through gaming, the availability of free time likely contributed to the behaviors.

> They help me pass the time when I am bored sometimes when I am afraid or anxious, I just start playing some of those games and they make me relax.(P5)

## Stress

Participants used gaming as a coping mechanism for stress. Despite being a maladaptive coping behavior, gaming has evolved into an intervention for stress, despair, and anxiety. The racing thoughts caused by stress were dealt with through playing games. Participants reported diverting negative thoughts using games.

> They help when you are stressed. They work as stress reliefs (P6)

> …. but for grand mafia it`s fun it helps me when I am anxious when am stressed when I can`t sleep (P5)

> When I am stressed, I try to divert my thoughts by playing a game. It reduces the thoughts (P9)

## Theme Two: Effects of Engaging in Gaming

This demonstrates the effects the game players experienced. The study identified seven sub-themes that describe the effects of gaming; a) academic challenges; (b) sleep deficits, (c) decline in interpersonal relationships; (d) job performance decline; (e) Money consumption; (f) poor eating habits, (g) and Time-consuming.

## Academic Challenges

Due to their participation in games, participants faced difficulties in their academic work. Academic challenges are explained here in two ways; failure to read books and suspensions due to engaging in games.

> And maybe when I was here at school for my undergraduate like could be having papers. You are like okay I am going to multi-task read, play a game. You end up not reading what you are supposed to read because however much you try to multi-task your focus is on the phone. You read for 5 minutes; you play for 20 minutes (P3)

> There are two times I was chased out of class because when you open candy crash there is that sound it makes, so the lecturer asked who is that. He wanted to chase away the whole row then I gave myself in and I said I am the one. So, he chased me from his class. He was like I should not attend even the next class I will attend the other one. It was a punishment (P7)

## Sleep Deficits

Participants acknowledged that getting less sleep has changed their daily routines. They find themselves dozing during the daytime and being unable to do activities as the day is planned. Work time is encroached on as participants compensate for the sleep deficit.

> I could play games up to 3:00 am when I have gone to bed at 10:00 pm. I would be turning in bed. During the day I could have sleep deficits because the time I was supposed to sleep, I used it to play games and now it's 6:00 am in the morning then that is when sleep comes yet it's time for waking up (P3)

Other participants played gamed games that required them to wake up at night since it was the rule of the game. For the participant to excel in such a game waking up at midnight was compulsory, which disrupts the sleep cycle since a person keeps on sleeping and waking up throughout the night.

> The underground market is usually at midnight so I wake up and play. It is usually 30 to 45 minutes; the underground market is usually 30 minutes but after the underground market then you do a rash it is usually 15 minutes (P5)

## Decline in Interpersonal Relationships

Participants reported that playing games had impaired their ability to form interpersonal bonds. Internet gaming has supplanted face-to-face social engagement. As a result, they spent less time socializing with others and more time gaming. Under this sub-theme, verbal and non-verbal communication, active listening, cooperation, and intimate relations were affected.

> I used to pay a lot of attention on my phone like in that people could be talking to you, I could just be sited there you talk but my concentration is on the phone. So, my mum used to complain about that saying I am going to take that phone, I am going to do what. My sisters came and we had a meeting at home to talk about my phone behavior. Just in November last year. We had a meeting at home a family meeting and the reason they called a meeting is that whenever I am with them, I am on the phone. Yet okay, I was playing games. I was playing my fruit burst so they complained (P3)

## Job Performance Decline

A participant mentioned arriving late at work owing to procrastination and gaming. Time was spent playing games rather than carrying out the intended activities. Playing games during work time brought in a decline in performance in their jobs.

> Ever since I have been failing to do productive things, this is because I can open my phone to check on g-mail or to attend to a task but then I end up opening grand mafia. So, I go and play in the toilet at my workplace. I can decide to go to my shop for instance and I even tell my girl I am coming, I prepare myself but then as I am getting out, I sit in the dining for a moment and I begin to play grand mafia for the next 35 minutes. Sometimes in the morning, I have to come to work now like this morning do you know I was almost late but I was just saved by two minutes (P5)

## Money Consuming

This was reported in three ways. Participants said gaming is money-consuming in terms of buying data, buying game materials to enable them to go to the next level of the game, and those playing games that are not free, they pay a subscription fee.

> It's costly because I would put data for other things and instead, I use it for games. That means I am spending money for data on something I am not supposed to be spending on (P1)

> Grand mafia in particular I worry that I might be addicted to it because sometimes I use real money to buy the game gold (P5)

> …you can pay for that App monthly and life goes on. It is paid in dollars but if you can subscribe, you can pay like 45,000 Ugandan money (P6)

## Poor Eating Habits

Due to engaging in games, participants developed poor eating habits. The study findings showed that diseases came about as a result of gaming. A participant reported getting ulcers because time was spent playing and no time was spared for cooking and eating food.

> My eating I could say I had bad eating behaviors because I could put a plate of food in front of me and start playing a game so the food cools and I do not want to eat it anymore even I lose appetite because you are busy on the phone. By the time you are done with a game, you do not want to eat the food. In my undergraduate, I was very small my elder sister could say uhm maybe she is just reading books yet I was just not eating. It was affecting me I even got ulcers because of that. One day I got an attack. I went to the hospital (P3)

## Time-Consuming

Games consume a lot of time. Participants reported spending a lot of time playing and thereafter failing to fulfill the daily activities as planned because a portion of their time was invested in gaming.

I have wasted a lot of time, ignored the things then they piled up and just become overwhelming. I feel like I would done better with my time (P4)

I am spending more time playing and I forget other things that I am supposed to do. So, I spend time on games which I would spend on other things. I find myself playing for a longer time than I planned (P10)

## Theme Three: Strategies to Reduce Gaming

This discusses the strategies participants used to reduce or stop playing games. Three sub-themes came up: (a) not buying data; (b) reaching out to friends; and (c) uninstalling the game Apps. The strategies were not effective, participants kept on relapsing.

## Not Buying Data

Participants in the process of trying to stop the gaming activities denied themselves data by refusing to buy it. They refused to put mobile money on their phones to prevent easy buying of data.

Not buying data because I know it is boring to play candy crash without data. When you lose you can go back if you do not have data. It's just boring. I can't play candy crash without data (P1)

Painfully I cut myself off. I wouldn't buy data. I stopped putting money on mobile money because it was a temptation. I would save my money in the bank but not mobile money such that it denies the opportunity of easy buying of data (P2)

## Reaching Out to Friends

Some participants decided to reach out to friends to get rid of the gaming activities. This was done in two ways; spending time with them other than using it to play games and also seeking advice from them on how to go about the gaming behaviors. Some of the advice included limiting phone usage, limiting data usage, and reading books which the participant tried.

I began to reach out to friends and I hold conversations. In-person meetings, get out of the room. So would visit them and we talked. So, by that, I was distracting my thoughts from continuing into games (P2)

You talk to friends. You tell them this thing is wasting a lot of time what should I do? They tell me to try this and this. You find the friends you're talking to they were more addictive than you are. They just tell limit the usage of your phone. They tell you to limit your data, read this book (P6)

## Uninstalling the Game Apps

Participants uninstalled the games to reduce/stop their gaming behaviors. Though some could uninstall the game after a little period they reinstall it again. Some just reduced the number of games they had on their smart phone saying that playing a few games can become boring and that can force you to quit gaming.

You make sure you uninstall some Apps when you have like many you reduce the games you have because when you play one, the one you pay for like at least I have two games they can bore you and limit you (P6)

Uninstalled the App and Gave It a Break, but I Remember Even After Uninstalling It, I Reinstalled It (P7).

# Discussion

This qualitative study explored the lived experiences and coping strategies utilized by individuals with IGD in the higher education setting in Uganda. In pursuit of the research objective, three key themes emerged: the initiation and triggering factors of gaming, the consequences of gaming, and the methods employed to cope. The study also discerned various subthemes associated with the aforementioned major themes.

Our findings indicate that participants who commenced gaming during childhood align with existing research in the field of IGD. Numerous studies consistently report that individuals often initiate their gaming habits during childhood or adolescence.[2,37,38] This trend is not exclusive to Uganda but is a global phenomenon, suggesting that the onset of gaming behavior typically occurs early in life.[23] These findings resonate with prior qualitative inquiries into IGD globally, where similar themes of escapism, social isolation, and the struggle to balance gaming with other life demands have emerged.[39] Our study identifies factors like easy access to technology, peer influence, and a desire for recreational activities contribute to the early adoption of gaming. These consistent findings suggest a universal pattern in the initiation of gaming habits across diverse populations. The motivations for early exposure may include forms of entertainment and socialization. However, this early initiation may have detrimental effects on cognitive, social, and emotional aspects,[2,37,38] thereby influencing academic performance, relationships with peers and family, and other facets of childhood development. Furthermore, there are observable long-term effects associated with the commencement of gaming in childhood. The fact that participants in this study started gaming in childhood emphasizes the importance of early intervention and preventive measures. Understanding the developmental trajectory of gaming behavior is vital for designing targeted interventions during formative years.

The results of our study underscore several crucial factors that influence the initiation and perpetuation of internet gaming among participants in the higher education setting in Uganda. Participants were attracted to internet gaming due to the availability of free games and easy access to gaming devices such as smartphones and computers at café centers. In accordance with previous qualitative studies,[39] our findings indicate that the accessibility and affordability of gaming platforms play a significant role in enticing individuals to partake in internet gaming, potentially contributing to a higher prevalence within the studied population. Similar to other research,[40] the concept of idleness emerged as a motivation for both initiating and sustaining internet gaming among participants. This suggests that boredom or a lack of engaging activities may prompt individuals to resort to internet gaming as a means of entertainment or a way to pass the time. Investigating the relationship between idleness and gaming could illuminate the role of gaming in filling leisure gaps and addressing the need for stimulating activities. In alignment with existing studies,[41–43] participants in our research reported that stress, arising from various stressors, significantly motivated their engagement in internet gaming. This implies that gaming may function as a coping mechanism for stress relief. Delving into the specific stressors and exploring how gaming helps individuals manage or alleviate stress could offer deeper insights into the psychological functions of gaming within this context.

The study's findings underscore the pervasive influence of internet gaming on participants' lives, revealing a spectrum of detrimental effects. Academic challenges, sleep deficits, impaired interpersonal relationships, declining job performance, financial burdens, time consumption, unhealthy eating habits, and maladaptive coping strategies for stress and peer pressures were identified as consequential outcomes. As revealed in other studies,[44] academic performance declined as individuals struggling with IGD faced challenges in concentration, meeting deadlines, and maintaining consistent academic engagement, Additionally, in line with findings from previous studies,[16,18–22] excessive gaming was linked to disrupted sleep patterns, possibly arising from extended gaming sessions. This led to sleep deprivation, with subsequent cascading effects on overall health and cognitive function. The study highlights a consistent finding in line with previous research.[45,46] It shows a negative relationship between IGD and interpersonal relationships. Individuals heavily involved in gaming tend to distance themselves from social interactions, resulting in lower relationship quality with family, friends, and peers. Consistent with other studies,[9,15–17] the impact extended into the professional domain, resulting in a decline in job performance attributed to diminished focus, fatigue, or the prioritization of gaming over work responsibilities. Further, similar to findings in other studies,[47] there is a noticeable connection between IGD and unhealthy eating habits. This association may be attributed to the sedentary nature of gaming, which leads to a lack of attention to proper nutrition. Understanding these consequences is crucial for developing targeted interventions and support mechanisms for those affected by IGD within the higher education setting in Uganda.

Participants in our study employed various coping strategies to address or mitigate the impact of IGD. Three specific strategies emerged from the findings: not buying data, reaching out to friends, and uninstalling the games. This coping strategy suggests a financial component to participants' attempts to control their internet gaming behavior. While

literature on the subject is relatively scanty, by choosing not to purchase data, individuals may intentionally limit their access to online games, reducing the temptation to engage in excessive gaming sessions. This could be seen as a practical and concrete step in exerting self-control. The decision to reach out to friends indicates a social support aspect in coping with IGD. Interpersonal connections play a crucial role in mental health,[48] and seeking support from friends suggests a recognition of the importance of social relationships in overcoming challenges. Friends offer encouragement,[48] advice, or simply serve as a distraction from gaming. Uninstalling the games represents a proactive measure taken by participants to remove the immediate source of temptation. This strategy involves a tangible action to break the cycle of gaming, acknowledging the potential addictive nature of the games and taking steps to physically distance oneself from them. These coping strategies reflect a multi-faceted approach to dealing with IGD, incorporating financial, social, and behavioral aspects. It's worth noting that these strategies are practical and directly linked to the participants' experiences, illustrating their agency in addressing the challenges posed by excessive internet gaming.

## Strengths and Limitations
The study's focus on a specific population, graduate students at Makerere University, limits the generalizability of the findings to a broader context. The experiences of individuals in other settings or demographics may differ. Participants may have been inclined to present themselves in a socially desirable manner, especially when discussing sensitive topics such as internet gaming disorder. This could impact the accuracy and depth of the information obtained. While the sample size may be appropriate for qualitative research, it is relatively small. A larger sample size could enhance the robustness and transferability of the findings. The study heavily relied on self-reported data from participants, which may introduce recall bias or subjective interpretations of experiences. Lastly, the gender distribution of participants is a limitation, given that there were only 3 male participants.

## Conclusion
The study highlights a global pattern of early initiation into gaming, emphasizing the need for early intervention and preventive measures. Factors such as easy accessibility and affordability of gaming platforms, idleness, and stress play significant roles in motivating internet gaming, contributing to a higher prevalence among the studied population. The research underscores the adverse effects of IGD on students, affecting academic performance, interpersonal relationships, and job performance. Notably, participants demonstrate agency in addressing IGD through practical coping strategies, including controlling data access, seeking social support, and uninstalling games. These coping mechanisms provide valuable insights into the complex nature of addressing IGD and form a basis for developing targeted interventions and support systems within the higher education setting in Uganda.

## Data Sharing Statement
The raw data for this article is available from the principal investigator upon reasonable request (Nalwoga Viola at morriolatwina@gmail.com).

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## Author Contributions
All authors made a significant contribution to the work reported. Significant contribution was made in the conception, study design, execution, acquisition of data, analysis and interpretation. Every author took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

## Disclosure
The authors declare no conflicts of interest in this work.

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