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Effects of Cognitive Restructuring on Internet Addiction among University Undergraduate in Kwara State, Nigeria

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Abstract- ***Psychological stress is a feature of human life. Some people feel more stressed than others. Therefore, the mental state of university students is one of the most important indicators that define the results or consequences of stress. A person has a certain ability to withstand stress. If she/he could not afford, new behavioural patterns emerge, resulting in further stress and problems. Thus, the student's failure to resolve problems causes ongoing emotional conflicts that affect energy and reduce their academic achievement. The present study aimed to identify the effectiveness of cognitive-behaviour therapy on students with internet addiction among university students. It adopted the quasi-experimental method and covered a sample of (120) students distributed purposively to an experimental group of (60) students and a control group of (60) students. Results revealed differences in the arithmetic means of the students' responses to the scales of internet addictions in favour of the post-test and the experimental group. The study recommended among others that; adopting the cognitive-behavioural therapy programme therapy to reduce internet addiction disorders among undergraduate students in Kwara state, Nigeria, counselling units in universities across Kwara State and Nigeria at large should incorporate Cognitive Restructuring into their regular psychological support programmes for students exhibiting signs of internet addiction.***

Keywords: ***cognitive-behaviour therapy, internet addiction, university undergraduate***

I. INTRODUCTION

Across the world, rapid advances in digital technologies and online services have reshaped the way people interact, access knowledge, and participate socially. Over roughly twenty years, the internet has shifted from being merely an academic support resource to becoming a dominant channel for communication, entertainment, information retrieval, and lifelong learning especially for students in higher institutions. In Nigeria, as well as in many other developing nations, this digital shift has been propelled by broader access to broadband networks, the affordability of smartphones, and the growing popularity of social media applications. Reports from the Nigerian Communications Commission (2024) indicate that internet access has risen considerably in the last decade, resulting in increased dependence on digital platforms among adolescents and young adults.

Although, the expansion of digital tools has enhanced learning opportunities and improved social connectivity, it has simultaneously given rise to several behavioural and psychological challenges one of the most notable being internet addiction. Internet addiction, sometimes described as problematic or compulsive internet use, refers to a pattern of excessive and poorly regulated engagement with online platforms. This persistent overuse interferes with normal daily activities, disrupts academic responsibilities, affects emotional and mental health, and strains relationships with others (Eke & Yusuf, 2021).

Undergraduates have been consistently identified as a high-risk group for problematic internet use because of their developmental stage, exposure to academic demands, peer influence, and the relative freedom associated with campus environments. These factors collectively heighten their likelihood of engaging excessively with online platforms. Empirical studies in Nigeria continue to report rising cases of internet-related dependency among university students, manifested in behaviours such as compulsive social networking, online gaming fixation, prolonged video streaming, and digitally driven procrastination in academic tasks (Adeleke & Olatunji, 2023; Musa & Ibrahim, 2022).

Kwara State, an important educational hub in Nigeria, hosts several universities with technology-driven teaching methods such as the University of Ilorin, Kwara State University, Al-Hikmah University and many others. However, internet-enabled learning environments have enhanced access

to academic materials; they have simultaneously exposed students to habits of intensive and sometimes harmful online use. Recent investigations reveal that high internet dependency among students in the state is associated with sleep disruptions, reduced academic concentration, compulsive engagement with social media platforms, and shrinking offline social interactions (Olawale et al., 2023; Raji & Abdullahi, 2021). These behavioural patterns emphasize the need for structured psychological interventions to address the rising concerns surrounding internet addiction.

Cognitive Restructuring, one of the central techniques within Cognitive Behavioural Therapy (CBT), has gained strong recognition as a practical approach for altering distorted patterns of thinking that contribute to unhealthy behaviours. The strategy enables individuals to recognize faulty assumptions, unrealistic beliefs, and automatic negative thoughts that often sustain excessive or compulsive internet engagement. By employing structured cognitive reframing exercises, individuals are guided to challenge these distortions and adopt more rational, balanced ways of thinking, which in turn encourage healthier and more controlled patterns of internet use (Olawale et al., 2023).

A growing body of empirical research, both globally and within Nigeria, has demonstrated the effectiveness of cognitive restructuring in managing various behavioural addictions such as substance misuse, gambling, excessive mobile phone use, and internet-related compulsions (Eke & Yusuf, 2021; Chukwuemeka & Achor, 2020). Despite the increasing acknowledgment that internet addiction is becoming a significant behavioural concern in the Nigerian context, there remains a noticeable gap in studies that apply structured psychological interventions to address the issue particularly within university settings where vulnerability is often higher.

Although, earlier studies conducted in Kwara State such as Ibrahim and Shittu (2020) have provided useful insights into the prevalence and psychological correlates of internet addiction, only a limited number have gone further to test therapeutic interventions especially those based on cognitive restructuring among university students. Much of the existing literature remains largely descriptive, creating a noticeable intervention gap in both scholarly work and practical application. This gap highlights the pressing need to assess evidence-supported psychological strategies that can be integrated into university counselling services for more effective management of problematic internet use.

This study, therefore, investigates how cognitive restructuring influences internet addiction among undergraduate students in Kwara State. The intention is to produce empirical evidence that is locally relevant and capable of guiding therapeutic practices, improving institutional mental health frameworks, and informing the design of targeted intervention programmes for tertiary institutions within the state.

II. STATEMENT OF THE PROBLEM

Internet addiction has become an emerging behavioural and psychological concern among undergraduates in Kwara State. The increased digitalization of academic activities, easy access to internet-enabled devices, and widespread use of social media platforms have blurred the boundaries between functional and excessive internet use. While the internet remains an important academic and social resource, its uncontrolled use has contributed to emotional, social, and academic challenges among students.

Recent observations across tertiary institutions in Kwara State indicate that many students spend prolonged hours on social media, online games, streaming services, and messaging applications often at the expense of academic engagement, healthy sleep routines, and meaningful interpersonal interactions. Compulsive internet use has been linked with heightened academic procrastination, disorganized time management, sleep disturbances, anxiety symptoms, declining academic focus, and social withdrawal (Olawale et al., 2023). These manifestations undermine students' academic outcomes, emotional stability, and overall quality of university life.

Despite increased recognition of internet addiction as a major behavioural concern, many institutions in Kwara State still operate without structured or evidence-based intervention programmes specifically tailored to the problem. Most guidance and counseling units offer general counselling services, which are often insufficient for addressing

behavioural addictions that require targeted psychological approaches (Ibrahim & Shittu, 2020). Although scholarship on internet addiction in Nigeria is steadily expanding, the bulk of existing studies have concentrated on determining prevalence rates, identifying correlates, or examining predictive factors (Adeleke & Olatunji, 2023; Musa & Ibrahim, 2022). Only a limited number have assessed therapeutic interventions, and even fewer have applied cognitive restructuring directly to internet-related behavioural challenges within university environments.

Considering the well-established effectiveness of cognitive restructuring in treating various addictive and maladaptive behaviours internationally, it becomes crucial to assess whether this technique can yield similar benefits for Nigerian undergraduates. Without context-specific empirical evidence, university counselling centres may continue relying on broad, non-specialized approaches that may not adequately mitigate compulsive internet use.

Therefore, the core problem addressed in this study is the absence of empirical investigations evaluating the effectiveness of cognitive restructuring as a focused intervention strategy for reducing internet addiction among undergraduate students in Kwara State.

III. OBJECTIVES OF THE STUDY

The main objective of this study is to determine the effects of cognitive restructuring on internet addiction among university undergraduates in Kwara State, Nigeria. Specifically, the study sought:

1. To assess the initial (baseline) level of internet addiction among undergraduates in Kwara State.
2. To evaluate the effectiveness of the cognitive restructuring technique in reducing symptoms of internet addiction among university undergraduates.
3. To compare the pre-intervention and post-intervention levels of internet addiction among students who received cognitive restructuring.
4. To determine whether cognitive restructuring produces significant changes in the cognitive distortions that contribute to problematic internet use.
5. To explore possible gender-based differences in the impact of cognitive restructuring on internet addiction among undergraduate students.

Research Questions

The study seeks answers to the following questions:

1. What is the baseline level of internet addiction among university undergraduate students in Kwara State?
2. What is the effect of cognitive restructuring in reducing internet addiction among university undergraduates?
3. What differences exist in pre-test and post-test scores of internet addiction among students exposed to cognitive restructuring?
4. Does cognitive restructuring significantly modify cognitive distortions associated with internet addiction?
5. Are there gender differences in the effect of cognitive restructuring on internet addiction?

Research Hypotheses

The following null hypotheses will guide the study:

H(01): There is no significant difference between pre-test and post-test levels of internet addiction among students exposed to cognitive restructuring.

H(02): Cognitive restructuring has no significant effect on reducing internet addiction among undergraduate students.

H(03): Cognitive restructuring does not significantly modify cognitive distortions associated with internet addiction.

H(04): There is no significant gender difference in the effect of cognitive restructuring on internet addiction among undergraduate students.

IV. LITERATURE REVIEW

Concept of Internet Use

The contemporary world is increasingly characterized by digital connectivity and a heightened reliance on internet-based technologies for communication, learning, social engagement, and economic participation. Internet usage now covers a wide spectrum of activities such as information searching, academic research, online chats, streaming services, gaming, virtual shopping, instant messaging, and participation in social networking sites. For university undergraduates, the internet has become an indispensable component of everyday academic life, supporting virtual learning, access to scholarly materials, collaborative project work, and academic communication (Olawale et al., 2023).

In Nigeria, access to the internet has grown rapidly, largely driven by the expansion of mobile broadband services and the widespread availability of low-cost smartphones. According to recent data from the Nigerian Communications Commission (2024), the number of active internet users continues to increase, firmly placing the country among the most digitally engaged nations in Africa. Universities within Kwara State such as the University of Ilorin, Kwara State University, and Al-Hikmah University further enhance this digital uptake by providing campus Wi-Fi, learning management systems, and other online academic resources that encourage frequent connectivity.

However, alongside these advantages, excessive or poorly regulated internet use has the potential to produce maladaptive behavioural patterns, including addictive tendencies that can disrupt students' academic performance, social relationships, and overall wellbeing.

Concept of Internet Addiction

Internet addiction (IA) is commonly understood as a pattern of prolonged, compulsive, and poorly regulated internet use that disrupts an individual's academic, social, or emotional functioning. Young (1998), one of the earliest scholars to explore this condition, described it as an overwhelming urge to remain online to the point where essential daily tasks are neglected. More recent scholarship views IA as a form of behavioural dependency marked by features such as compulsive engagement, withdrawal-like reactions when access is restricted, diminished control over usage, increasing tolerance, and cognitive difficulties associated with excessive online involvement (Kuss & Griffiths, 2017).

Although, Internet Addiction Disorder has not been formally classified as an independent diagnosis in the DSM-5, the manual does acknowledge Internet Gaming Disorder as a condition requiring additional research. This inclusion reflects the growing acceptance within clinical and psychological fields that problematic patterns of online behaviour can reach levels that are clinically meaningful and warrant structured assessment and intervention.

Among Nigerian undergraduates, internet addiction manifests through compulsive social media use, excessive online gaming, prolonged video streaming, emotional dependence on virtual interactions, and persistent browsing unrelated to academic goals. Research in Kwara State also associates IA with academic procrastination, anxiety when offline, reliance on online validation, and reduced face-to-face interactions.

Concept of Cognitive Restructuring

Cognitive restructuring (CR) is a core technique within Cognitive Behavioural Therapy (CBT) aimed at helping individuals uncover, question, and reformulate distorted patterns of thinking that contribute to unhealthy behaviours. According to Beck (1976), CR equips individuals with skills to identify their spontaneous negative thoughts, examine their validity, and substitute them with more balanced and constructive interpretations. It involves identifying cognitive distortions such as overgeneralization, emotional reasoning, dichotomous thinking, personalization, and catastrophizing (Burns, 2019).

Cognitive Restructuring and Internet Addiction

Cognitive restructuring is particularly suited for internet addiction because the behaviour is often rooted in:

- distorted self-perceptions
- low self-efficacy regarding self-regulation
- exaggerated beliefs about the necessity of constant online presence
- emotional reasoning that drives compulsive use
- minimization of risks associated with excessive internet activity

By reshaping these cognitions, CR reduces psychological dependence on the internet.

1. Cognitive Behavioural Theory (CBT)

Cognitive Behavioural Therapy (CBT) maintains that cognition, emotion, and behaviour operate as an interrelated system, and that problematic behaviours often stem from inaccurate or unhelpful patterns of thinking. Within this framework, excessive or compulsive internet use is understood as arising from distorted beliefs such as heightened fear of missing out (FOMO) or the perception that online approval is crucial for self-worth. Cognitive restructuring addresses these faulty assumptions by helping individuals modify the thought processes that reinforce addictive online behaviours.

2. Self-Regulation Theory

This theoretical perspective underscores the importance of self-regulation and the capacity to postpone gratification in shaping behavioural outcomes. When individuals struggle with self-

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control, they become more vulnerable to developing addictive or compulsive patterns. Cognitive restructuring supports the improvement of self-regulatory abilities by strengthening cognitive control processes, helping individuals manage impulses more effectively, and thereby reducing excessive or uncontrolled internet use.

Internet Addiction and its Psychological Predictors among Nigerian Undergraduates

Adeleke and Olatunji (2023), in a large-scale survey involving 1,200 university students across South-West Nigeria, reported that approximately 38.4% of the respondents demonstrated moderate to high indicators of internet addiction. Comparable patterns were documented by Musa and Ibrahim (2022), who noted that students in northern Nigeria showed heightened levels of compulsive social media use.

Within Kwara State, empirical studies by Olawale et al. (2023) and Raji and Abdullahi (2021) revealed similarly elevated levels of problematic internet engagement among learners at Kwara State University and the University of Ilorin. Their findings associated excessive online activity with challenges such as poor time regulation, sleep disturbances, and tendencies toward academic procrastination. Some of the studies also indicated that male students were disproportionately affected.

Psychological Predictors of Internet Addiction

Eke and Yusuf (2021) reported that factors such as diminished self-esteem, difficulties in managing emotions, and distorted thinking patterns were significant predictors of excessive internet engagement among undergraduates in Lagos. In a related study, Chukwuemeka and Achor (2020) highlighted anxiety and social isolation as major psychological conditions associated with problematic internet use. Personality characteristics have also been implicated; for instance, Alegbeleye and Afolabi (2022) observed that traits like neuroticism and extraversion showed notable associations with compulsive online behaviour.

Cognitive Restructuring Interventions in Nigeria

Although research on cognitive restructuring in Nigeria is still evolving, available evidence increasingly supports its usefulness. Eke and Yusuf (2021) found that the technique produced notable decreases in smartphone dependency among adolescents. Similarly, findings by Chukwuemeka and Achor (2020) indicated that students who participated in CR-oriented programmes showed better self-regulation and reduced susceptibility to online peer pressure. In another study, Nwankwo and Okorie (2022) recorded meaningful declines in gambling-related behaviours among university students in Imo State after undergoing CR intervention. Collectively, these studies reinforce the effectiveness of cognitive restructuring as a viable therapeutic approach for addressing addictive behaviours within educational settings.

Gender and Internet Addiction in Nigerian Studies

Findings on gender differences are mixed. For examples, Musa and Ibrahim (2022) reported higher addiction levels among male gamers. Okereke and Adeyemi (2019) found greater social media compulsivity among females. Olawale et al. (2023) reported no significant gender differences overall. This inconsistency justifies further exploration of gender as a moderating factor, particularly in intervention studies.

V. METHODS

Research Design

A quasi-experimental design of pre-test, post-test control group design was employed for this study. This design was considered appropriate because behavioural intervention research conducted in naturalistic educational environments rarely permits full randomization. The design enabled the researcher to compare outcomes between the treatment group, which received the Cognitive Restructuring (CR) intervention, and the control group, which did not.

Population of the Study

The population comprised all undergraduates enrolled in all universities in Kwara State, Nigeria. The institutions included:

1. University of Ilorin (Federal)
2. Kwara State University, Malete (State)
3. Al-Hikmah University, Ilorin (Private)

These universities were selected to ensure representation across the federal, state, and private categories in Kwara State. Undergraduates were particularly suitable for this study because of their high exposure to internet-enabled environments, increased vulnerability to problematic internet use, and accessibility during school hours for structured psychological interventions.

Sample and Sampling Technique

A total of 120 undergraduate students participated in the study. The sampling procedure involved is multi-stage sampling technique.

Phase 1: Screening for Internet Addiction

Students were screened using the Internet Addiction Test (IAT). Only individuals with moderate to severe levels of internet addiction were recruited for participation.

Phase 2: Group Assignment

Eligible students were purposively assigned into:

- Treatment Group: 60 students
- Control Group: 60 students

Assignment was done purposively among the selected students from the three universities selected for the assignment. This was done to ensure internal fairness while operating within the constraints of a quasi-experimental design. This approach preserved scientific rigor and ecological validity.

Research Instruments

Two instruments were used for data collection:

1. Young's Internet Addiction Test (IAT): The IAT is a 20-item self-report inventory developed by Young (1998) to evaluate the degree of internet addiction. Items assess compulsive use, escapism, loss of control, neglect of duties, and psychological distress, using a 5-point Likert scale (1 = Rarely, 5 = Always). Interpretation of scores read thus: 20–49: Mild addiction, 50–79: Moderate addiction, 80–100: Severe addiction. Only respondents scoring 50 and above were recruited.
2. Cognitive Distortion Rating Scale (CDRS): The CDRS assesses maladaptive cognitive distortions such as catastrophizing, overgeneralization, dichotomous thinking, personalization, and emotional reasoning. Responses were scored on a 5-point Likert scale from Strongly Disagree to Strongly Agree.

This instrument was appropriate because CR directly targets distorted cognitions underlying addictive behaviours.

Validity of the Instruments

Face and content validity were established through expert review by given the instrument to two senior lecturers in Counselling Psychology, one expert in Educational Measurement and Evaluation and one clinical psychologist experienced in cognitive behavioural interventions. The experts evaluated the instruments for technical accuracy, clarity, construct relevance, cultural suitability, and coverage. Their suggestions were integrated into the final drafts to ensure contextual appropriateness for Nigerian undergraduates.

Reliability of the Instruments

A pilot test was conducted with 30 students from Kwara State Polytechnic, who were excluded from the main study. Cronbach's Alpha was applied to determine internal consistency. The reliability coefficients of IAT was ≥ 0.85, while that of CDRS was ≥ 0.80. Since both exceed the minimum threshold of 0.70, this confirmed that the instruments were suitable for behavioural research.

Data Analysis

Both descriptive and inferential statistics were used. The descriptive statistics used for the study are frequencies, percentages, means and standard deviations while the inferential used are Paired Sample t-test to examine within-group differences (pre-test vs post-test for treatment group), Independent Sample t-test to compare treatment and control groups on post-test scores as well as ANCOVA to control for baseline differences and strengthen inference by adjusting post-test scores for pre-test values. All analyses were conducted using SPSS version 23, with a significance level set at 0.05.

VI. RESULTS

Demographic characteristics of respondents

Table 1: *Distribution of Respondents by Gender*

Gender	Frequency	Percentage (%)
Male	58	48.3%
Female	62	51.7%
Total	120	1000%

The distribution shows that 58 males (48.3%) and 62 females (51.7%) participated in the study, indicating a balanced gender representation.

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Research Question One: What is the baseline level of internet addiction among undergraduate students in Kwara State before the intervention?

Table 2: *Pre-test Internet Addiction Scores for Treatment and Control Groups*

Group	N	Mean (M)	Standard Deviation (SD)
Treatment	60	73.45	8.92
Control	60	72.88	9.14
Total	120	73.17	9.03

The results reveal that the baseline (pre-test) internet addiction level among all participants was moderate to high, with a combined mean score of 73.17. This confirms that the sample fits the target population for internet addiction intervention.

Hypothesis Testing

Hypothesis One: There is no significant difference between pre-test and post-test scores of students exposed to Cognitive Restructuring.

Table 3: *Paired Samples t-test for Treatment Group*

Variable	Mean Diff.	t-value	Df	Sig (p)
Pre-test vs Post-test	32.33	24.812	59	0.000

$p < 0.05 \rightarrow$ Reject H01

Cognitive Restructuring produced a significant reduction in internet addiction among undergraduates.

Hypothesis Two: Cognitive Restructuring has no significant effect on reducing internet addiction compared to the control group.

Table 4: *Independent Samples t-test (Post-test Scores)*

Group	N	Mean (M)	Standard Deviation (SD)	t-value	df	Sig (p)
Treatment	60	41.12	7.45	-20.745	118	0.000
Control	60	71.56	8.77			

$p < 0.05 \rightarrow$ Reject H02

There is a significant difference in favour of the treatment group. CR is a highly effective intervention.

Hypothesis Three: Cognitive Restructuring does not significantly reduce cognitive distortions.

Table 5: *Paired t-test on Cognitive Distortion Scores*

Mean Diff.	t-value	df	Sig (p)
28.43	19.554	59	0.000

$p < 0.05 \rightarrow$ Reject H03

Cognitive Restructuring significantly modified maladaptive thoughts associated with internet addiction.

Hypothesis Four: There is no significant gender difference in the effect of Cognitive Restructuring.

Table 6: *Independent t-test (Gender Differences)*

Gender	N	Mean (M)	Standard Deviation (SD)	t-value	Sig (p)
Male	29	41.90	7.88	0.839	0.404
Female	31	40.41	6.98		

$p > 0.05 \rightarrow$ Fail to Reject H04

No significant gender difference exists. Cognitive Restructuring is effective for both male and female undergraduates.

VII. DISCUSSION

The purpose of this study was to examine the effect of Cognitive Restructuring (CR) on internet addiction

among undergraduate students in Kwara State, Nigeria. The findings derived from the data analysis provide compelling evidence that CR is a highly effective psychological intervention for reducing internet-related addictive behaviours and the cognitive distortions associated with them. The discussion is presented in line with the research questions and hypotheses formulated for the study.

The findings revealed that undergraduate students displayed moderate to high levels of internet addiction prior to the intervention. This is consistent with both local and global empirical evidence which shows that excessive internet engagement has become increasingly prevalent among young adults in higher institutions. Nigerian studies such as Adewale and Adebayo (2020) and Nwachukwu (2019) have reported that students rely heavily on internet-enabled devices for academic, social, recreational, and emotional needs, which predisposes them to patterns of problematic use.

The high baseline scores are also theoretically consistent with Young's (1998) model of internet addiction, which posits that addicted individuals exhibit symptoms such as compulsive use, tolerance, withdrawal, and impaired self-regulation. Similarly, Davis's (2001) Cognitive–Behavioural Model suggests that maladaptive cognitions are central to the onset and maintenance of internet addiction. Thus, the pre-test results of this study confirm existing empirical and theoretical assertions that university students are susceptible to excessive and dysfunctional patterns of internet use.

A major finding of the study was the significant reduction in internet addiction among students who received the CR intervention. The mean addiction score decreased from 73.45 (pre-test) to 41.12 (post-test), whereas the control group showed no significant change. This indicates that CR is effective in modifying addiction-related behaviours.

Cognitive Restructuring operates within the framework of Cognitive Behavioural Theory (CBT), which holds that behaviour is shaped by thoughts, beliefs, and interpretations. By challenging cognitive distortions such as catastrophizing, emotional reasoning, overgeneralization, and dichotomous thinking, CR helps individuals adopt more realistic and adaptive perspectives that foster healthier behaviour. This finding aligns with the results of previous Nigerian and international studies such as Olatunji and Ighodalo (2021) found that CR significantly reduced online gaming addiction among university students in Lagos State. Ojo (2020) reported that CR effectively reduced excessive social media dependence among adolescents in Ogun State. Adeyemi and Salami (2018) demonstrated the effectiveness of CBT-driven interventions in managing technology-based addictions. Similar outcomes have been documented globally (Fuster et al., 2016; Kim, 2018).

The consistency between these findings and the present study underscores the effectiveness of CR in tackling behavioural addictions driven by distorted thinking.

Another important finding was the significant reduction in cognitive distortions among students in the treatment group, with scores dropping from 66.78 at pre-test to 38.35 at post-test. This finding validates the central assumption of CR that cognitive modification is essential for behavioural change. The result is supported by earlier studies such as Yen et al. (2019), who demonstrated that correcting faulty cognitions improves self-regulation among internet-addicted youths. Ibrahim and Shittu (2020), who reported that CR effectively reduced negative thinking patterns associated with smartphone addiction among university students. Osakwe (2021), who identified common cognitive distortions (e.g., personalization, minimization) among Nigerian undergraduates with internet addiction.

The reduction in cognitive distortion confirms that CR successfully targets and alters the mental processes that sustain maladaptive digital behaviours. The findings revealed no significant gender difference in the effectiveness of CR. Although male participants had slightly higher post-test scores (41.90) than females (40.41), the difference was statistically insignificant ($p > 0.05$). This suggests that CR is equally effective for both genders. This aligns with Okafor and Eke (2019), who found no gender variation in CBT outcomes for behavioural addictions among Nigerian youths. Essien and Udoh (2021), who argued that cognitive-based interventions produce similar outcomes across genders because they target thought processes that are not gender-specific.

This finding contradicts studies such as Sun and Chen (2018), which reported that males tend to be more

susceptible to internet addiction. The present study, however, indicates that when provided with structured cognitive intervention, both males and females benefit equally.

VIII. CONCLUSION

This study assessed the effect of Cognitive Restructuring on internet addiction among undergraduate students in Kwara State. The findings revealed that internet addiction is a growing behavioural and psychological concern among university students. Before the intervention, respondents demonstrated moderate to high levels of internet addiction, which aligns with previous research indicating widespread problematic internet use in higher institutions.

It was confirmed from the findings that CR is effective in modifying irrational beliefs, restructuring maladaptive cognitive patterns, and strengthening self-regulatory abilities. The intervention helped students recognize triggers, challenge distorted thinking, adopt balanced interpretations, and develop healthier coping skills.

Based on the findings, the study concludes that:

1. Cognitive Restructuring is a highly effective psychological intervention for managing internet addiction among university undergraduates.
2. CR enhances cognitive appraisal, emotional regulation, and behavioural control, leading to reduced compulsive internet use.
3. CR is equally effective for both male and female students.

   This study therefore affirms CR as a practical, evidence-based, and scalable intervention for addressing digital behavioural disorders in Nigerian universities.

IX. RECOMMENDATIONS

Based on the findings and conclusions of the study, the following recommendations are made:

- Integration of Cognitive Restructuring into University Counselling Services: Counselling units in tertiary institutions should adopt CR as a standard therapeutic approach for managing internet addiction and related behavioural issues.
- Capacity Building for Counsellors and Psychologists: Universities should organize professional development workshops to strengthen counsellors' competence in evidence-based therapies such as CR, CBT, MET, and other behavioural interventions.
- Digital Wellness Education in Orientation/GST Programmes: First-year university students should be educated on responsible internet use, early symptoms of digital addiction, and strategies for self-regulation.
- Development of Institutional Digital Use Policies: University authorities should establish policies regulating digital behaviour in hostels, libraries, and lecture halls to curb excessive internet engagement.
- Parental and Guardian Sensitization: Universities should provide parents with information on identifying warning signs of digital addiction and supporting students in establishing healthy online habits.
- Routine Screening for Internet Addiction: Tertiary institutions should adopt validated internet addiction screening tools as part of periodic student assessments to identify at-risk individuals early and provide timely intervention.

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