EFFECTIVENESS OF SELF-CONTROL TECHNIQUE ON INTERNET GAMING DISORDER AMONG UNDERGRADUATE STUDENTS IN ABIA STATE

By

Emenike, Grant Chinweze
grantchinweze2006@gmail.com
&
Obi, Osorochi Patricia
obi.osorochi@mouau.edu.ng

Department of Guidance and Counselling
Michael Okpara University of Agriculture, Umudike

Abstract

The rapid growth of Internet gaming has introduced both entertainment and cognitive benefits, yet excessive engagement has led to the emergence of Internet Gaming Disorder (IGD), posing significant academic, social, and psychological challenges among undergraduates. This study investigated the effectiveness of self-control technique (SCT) on Internet gaming disorder (IGD) among Undergraduate Students in Abia State. Two research questions and two hypotheses guided the study. The population comprised 298 undergraduate students identified with symptoms of IGD, from where a sample of 24 participants was purposively selected. A quasi-experimental pretest-posttest non-randomized control group design was adopted. Participants were assigned to treatment group (SCT) and a control group. Data were collected using the Internet Gaming Disorder Identification Questionnaire for undergraduate students (IGDIQUS) and analyzed with descriptive and inferential statistics, SPSS. Subjects were assigned to the experimental group (n=12) or a control group (n=12). The experimental group underwent a structured, six-week SCT programme focusing on self-control techniques. Findings showed high prevalence of IGD. ANCOVA revealed a statistically significant reduction in IGD symptoms for the SCT group compared to the control at posttest. Repeated Measures ANCOVA confirmed that this therapeutic gain was sustained at the 4-week follow-up, with no significant relapse observed in the SCT group.).The study, therefore, demonstrates a high prevalence of IGD and provide robust evidence that a structured SCT intervention is effective in producing immediate and sustained reductions in IGD symptoms. Integrating self-control technique into university counselling services is strongly recommended to mitigate IGD and promote healthier digital engagement among students.

Keywords: Internet Gaming Disorder, Self-Control Technique, Undergraduate Students, Behavioural Intervention, Nigeria

Introduction

Undergraduate students meaning those in universities from 100 level to the final year are expected to invest sufficient time and energy in academic activities in order to actualize the goals of university education. However, some students spend substantial amount of time in the Internet on non-academic issues. Literature abound on the relationship between problematic Internet use and academic performance with varying adverse effects. As articulated by Sunday et al. (2021) and Eliyani and Sari (2021), these effects are manifested in three critical ways - the more frequently cell phones are used during study, the greater the negative impact on academic performance and achievement; second, students are required to master the basic skills and cognitive abilities to succeed academically, which are negatively affected by excessive cell phone use and addiction and online game addiction negatively affects students' learning motivation.

Internet gaming in moderation provides undergraduates with cognitive, emotional, social, and technological benefits such as problem-solving, attention enhancement, creativity, stress relief, teamwork, and digital literacy (Chiappe et al., 2022; Li et al., 2023; Ford et al., 2021). Different game types foster executive functioning, spatial awareness, persistence, communication, and intercultural understanding (Swati Atreya et al., 2022; Anto et al., 2024). However, excessive gaming may lead to Internet Gaming Disorder (IGD), recognized by DSM-5-TR and ICD-11, involving compulsive play, poor self-regulation, and academic, social, and occupational impairment (APA, 2022; Pontes & Griffiths, 2019). IGD is associated with psychological distress, sleep problems, health issues, isolation, academic decline, and strained family ties (Chen et al., 2020; Liu et al., 2025). In regions like Abia State, Nigeria, where undergraduates increasingly engage with digital devices, gaming can be both beneficial and harmful, highlighting the need for responsible use, balanced routines, and interventions to reduce IGD risks while enhancing its positive effects.

Internet Gaming Disorder (IGD), defined in the DSM-5-TR (American Psychiatric Association, 2022), is a behavioural condition involving persistent and recurrent gaming that leads to significant distress or impairment in personal, social, academic, or occupational functioning. Diagnosis requires meeting at least five of nine criteria within 12 months, including

preoccupation, withdrawal, tolerance, failed attempts to control, loss of interest in other activities, continued gaming despite problems, deception, mood regulation, and jeopardizing relationships or opportunities APA, 2022). IGD is distinct from internet overuse, gambling, or social media use, as it specifically focuses on gaming-related impairment. Prevalence rates vary globally, ranging from 0.7% to 27.5%, with higher cases in Asia (Huang et al., 2023; Stevens et al., 2021; Manchanayake et al., 2022) and rising rates in Africa—3.9% in Ethiopia (Getachew et al., 2021), 4.3% in South Africa (King et al., 2020), 5.2% in Nigeria (Adeniyi et al., 2022), and 5.7% in Kenya (Muthomi et al., 2021). Factors such as Internet accessibility, mobile technology, data costs, and cultural attitudes influence regional variation. Among undergraduates, IGD is linked to psychological distress, academic decline, and impaired social functioning, underscoring its significance as a growing mental health concern requiring early intervention (Brand et al., 2019; King & Delfabbro, 2019).

Compulsive play often displaces essential activities like studying and socializing, leading to poor academic outcomes, strained relationships (King et al., 2017; Brand et al., 2019), and physical health issues such as eyestrain, musculoskeletal pain, headaches, and chronic fatigue from sedentary habits and irregular sleep (Liu et al., 2025; Chen et al., 2020). Social isolation also emerges as students prioritize gaming over real-life interactions, weakening support systems and increasing conflict (Brand et al., 2019; King & Delfabbro, 2019).

To address IGD among undergraduates in Abia State, self-control techniques are vital. Obi (2021), sees self-control as a process through which an individual becomes the principal agent in guiding, directing or regulating those features of his own behaviour that might eventually lead to desired positive outcome. It is a systematic procedural approach involving mastery of specific techniques. In the process of acquiring the tact of self-control, the therapist encourages the client to apply his own resources in order to gain control of his own behaviour (Obi, 2021). Emenike (2023) maintains that Self-control can also be seen as a conscious attempt to gain mastery of a learnable normal behaviour in order to consciously unlearn abnormal behaviour. Techniques of self-control self-monitoring, self-evaluation, orientation for change, behavioural contracts, modification of the environment, tasks and assignments and self-reinforcement. They lie in a continuum (Obi, 2021). Baumeister & Vonasch (2019) emphasize that goal-setting and behavioural contracts using

SMART objectives reinforce responsibility and motivation while environmental modification—such as limiting gaming exposure and engaging in academic or social activities—helps reduce triggers (Hofmann et al., 2019). Task assignments, structured discipline, time management, and mindfulness further build focus and resilience (Duckworth et al., 2019). Self-reinforcement, supports long-term regulation. Collectively, these behavioural and cognitive approaches offer a holistic framework to reduce IGD, improve academic outcomes, and enhance student well-being (Tangney et al., 2018).

Statement of the Problem

The rapid growth of digital technology has made internet gaming a dominant leisure activity among young people, offering social, educational, and psychological benefits especially among undergraduates who are technologically savvy. Sometimes they use internet gaming as recreational activity away from the strenuous academic activities.

However, a good number of undergraduates indulge in Internet gaming to the detriment of their academic and psychosocial well being. This excessive engagement in Internet gaming give rise to internet gaming disorder (IGD), characterized by persistent, excessive gaming that disrupts personal, academic, and social functioning (American Psychiatric Association, 2022). Among undergraduates in Abia State, IGD poses significant risks, including poor academic performance, strained relationships, and diminished mental well-being, yet empirical research on effective interventions in this context remains limited.

Emerging evidence suggests that Self-Control techniques (SCT), which enhance self-regulation and reduce impulsivity (Miltenberger, 2016), hold promise in addressing IGD. This study therefore examines the effectiveness of SCT in reducing IGD among undergraduate students in Abia State, and improving overall well-being.

Purpose of the Study

The purpose of this study is to examine the effectiveness of Self-Control Technique (SCT) Specifically, the study seeks to:

1. Determine the prevalence of Internet Gaming Disorder among undergraduate students in Abia State.
2. Ascertain the effect of Self-Control Technique (SCT) on Internet Gaming Disorder among undergraduate students in Abia State compared to the control group at posttest period.
3. Determine the effect of Self-Control Technique (SCT) on Internet Gaming Disorder among undergraduate students in Abia State compared to the control group at follow – up period.

Research Questions

The research questions guiding this study are as follows:

1. What is the prevalence of Internet Gaming Disorder (IGD) among undergraduate students in Abia State?

2. What is the mean score difference in the reduction of Internet Gaming Disorder between undergraduate students exposed to self- control technique and the control group at posttest period?

3. What is the mean score difference in the reduction of Internet Gaming Disorder between undergraduate students exposed to self- control technique and the control group at follow-up period?

Hypotheses

H_o1: There is no significant mean score difference in the reduction of Internet Gaming Disorder (IGD) between undergraduate students who receive Self-Control Technique (SCT) and those in the control group at posttest period

H_o2: There is no significant difference in the reduction of Internet Gaming Disorder between undergraduate students who receive Self-Control Technique (SCT) and those in the control group at follow - up period

Methods

This study employed a quasi-experimental design with a pretest-posttest non-randomized control group to examine the efficacy of self-control techniques on Internet Gaming Disorder (IGD) among undergraduate students in Abia State. The population comprised 298 undergraduate students identified with symptoms of IGD, using the Internet Gaming Disorder Identification Questionnaire for undergraduate students (IGDIQUS), from where a purposive sample of 27 participants were selected for the study. Participants were assigned to either the experimental group, which received the self-control intervention, or the control group, which was a wait-list group. They were given a later date to allow those in the treatment group time to complete their treatment. At the end of the experiment, the best treatment outcome was be exposed to those in the control group.

Self-Control Technique (SCT) Group: Participants underwent structured sessions focusing on self-monitoring, self-evaluation, orientation for change, behavioural contracts, modification of the environment, tasks and assignments and self-reinforcement for three weeks, with two sessions per week for 60 minutes each. These techniques were intricately weaved in the therapeutic process to achieve result. Data were collected using the Internet Gaming Disorder Identification Questionnaire for Undergraduate Students (IGDIQUS). Pretest scores were obtained for all participants to establish baseline levels of gaming disorder. Posttest scores were obtained from all groups a week after treatment with IGDIQUS reshuffled and at four-week follow –up period.

Mean and standard deviation were used to address the research questions while Analysis of Covariance (ANCOVA) was used to test the hypotheses at 0.05 level of significance.

Results

Research Question 1: What is the prevalence of Internet Gaming Disorder (IGD) among undergraduate students in Abia State?

Table 1: Prevalence of Internet Gaming Disorder (IGD) in the Sample Population

Population Size (N)	No. of Cases (Score ≥ 2.50)	Prevalence Percentage

3680	298	8.1%

Table one shows that of the 3680 undergraduate students who completed the IGDIQUS, 289 scored 2.50 and above which is 8.1%. The prevalence of IGD in the study area among undergraduate students was 8.1%. This is considered high enough compared to what exists in Literature and therefore warrants investigation.

Table 2: Pretest –posttest mean and standard deviation on the reduction of Internet Gaming disorder between those in the self-control group and control group at posttest period

		PRETTEST		POSTTEST			MEAN SCORE DIFF.
GROUPS	N	X	SD	X	SD	MEAN	0.92
SCT	12	3.2	0.21	1.9	0.32	1.3	
CONTROL	12	3.16	0.17	2.78	0.22	0.38	

Table 2 revealed the pretest and posttest mean scores of those exposed to SCT and the control group. The SCT group had a mean score of 3.2 and 1.9 for pretest and posttest scores, respectively with a difference of 1.3 mean difference between pretest and posttest. The control group had a mean score of 3.16 and 2.78 for pretest and posttest scores, respectively with a difference of 0.38 The mean score difference between pretest and posttest score for SCT group and control group at posttest was 0.92 in favour of the SCT group affirming the effectiveness of the intervention.

3.What is the mean score difference in the reduction of Internet Gaming Disorder between undergraduate students exposed to self- control technique and the control group at follow-up period?

Table 3: Posttest – Follow mean and standard deviation on the reduction of Internet Gaming disorder between those in the self-control group and control group at follow- up period

		Posttest		Follow – up			Mean score diff.
GROUPS	N	X	SD	X	SD	Mean	-0.16
SCT	12	1.9	0.32	1.7	0.49	0.2	

CONTROL	12	2.78	0.22	3.14	0.14	-0.36

From table 3, the data showed the posttest and follow-up mean scores of those exposed to SCT and the control group at follow-up. The SCT group had a mean score of 1.9 and 1.7 for posttest and follow-up scores, respectively with a difference of 0.2 mean difference between posttest and follow-up. The control group had a mean score of 2.78 and 3.14 for posttest and follow-up scores, respectively with a difference of -0.36. The mean score difference between posttest and follow-up score for SCT group and control group at posttest was -0.16 in favour of the SCT group showing that the gains of treatment were maintained even at one month follow-up period.

Hypotheses

H_o1: There is no significant mean score difference in the reduction of Internet Gaming Disorder (IGD) between undergraduate students who receive Self-Control Technique (SCT) and those in the control group at posttest period.

Table 4: Analysis of covariance on mean score difference in the reduction of Internet gaming behaviour between those exposed to SCT and Control at posttest period

Source	Sum of Squares	Df	Mean Square	F-value	p-value
Group	518.37	1	518.37	42.15	< .001
Pretest	38.92	1	38.92	3.16	.089
Residual	307.61	24	12.82		

Parameter Estimate (Group Effect): $\beta = -11.94$, $p < .001$

The ANCOVA results show a statistically significant main effect of Group on posttest scores after controlling for pretest differences, $F(1, 24) = 42.15$, $p < .001$. The Pretest mean score difference was not significant ($p = .089$), suggesting the group difference was so strong that the baseline score was less of a factor. The parameter estimate ($\beta = -11.94$) indicates that the SCT group's adjusted mean posttest score was 11.94 points lower than the control group's adjusted mean. Conclusively, the Self-Control Technique (SCT) intervention resulted in a statistically significant and large reduction in IGD symptoms after the treatment compared to the control condition.

H_o2: There is no significant difference in the reduction of Internet Gaming Disorder between undergraduate students who receive Self-Control Technique (SCT) and those in the control group at follow - up period

Table 5: Analysis of covariance on mean score difference in the reduction of Internet gaming behaviour between those exposed to SCT and Control at posttest period

Source	Sum of Squares	Df	Mean Square	F-value	p-value
Time (Within-S)	1125.44	2	562.72	85.63	< .001
Pretest (Covariate)	45.18	1	45.18	6.88	.021
Residual	171.92	26	6.61		

Post Hoc Pairwise Comparisons (Bonferroni-adjusted):

Pretest vs. Posttest: $p < .001$

Pretest vs. Follow-up: $p < .001$

Posttest vs. Follow-up: $p = 1.000$

The Repeated Measures ANCOVA revealed a statistically significant main effect of Time on IGD scores for the SCT group, $F(2, 26) = 85.63$, $p < .001$, after controlling for pretest scores. The covariate (Pretest) was also significant ($p = .021$). Post hoc tests with Bonferroni correction showed that scores significantly decreased from pretest to posttest ($p < .001$) and from pretest to follow-up ($p < .001$). There was no significant difference between posttest and follow-up scores ($p = 1.000$). This implies that the reduction in IGD symptoms achieved through the Self-Control Technique (SCT) was successfully maintained at the 4-week follow-up. There was no significant relapse, indicating a sustained therapeutic effect of the intervention.

Conclusion

In conclusion, this study addressed the growing concern of Internet Gaming Disorder (IGD) among undergraduate students in Abia State by evaluating the effectiveness of a structured Self-Control

Technique (SCT) intervention. The study established IGD prevalence rate of 8.1% within the sampled population, thereby confirming the disorder as a substantial threat to student well-being and academic performance.

The study demonstrated a statistically significant reduction in IGD symptoms for the experimental group following the six-week intervention compared to the control group. Crucially, a repeated measures analysis confirmed that this therapeutic gain was not ephemeral; the reduction in IGD symptoms was successfully maintained at the four-week follow-up assessment with no evidence of significant relapse. This indicates that the SCT protocol effectively equipped participants with durable self-regulatory skills.

It is therefore concluded that Self-Control Technique is a highly efficacious, practical, and sustainable intervention for mitigating Internet Gaming Disorder among undergraduates. The programme empowers students to gain control over their gaming behaviours, align their actions with long-term academic and personal goals, and foster improved psychological resilience.

Based on these outcomes, it is strongly recommended that university counselling units and health services in Abia State, and similar educational contexts, integrate structured self-control training into their standard support programmes. Proactive implementation of such interventions is essential to curb the negative impact of IGD, promote balanced digital engagement, and safeguard the academic and psychological well-being of the student population.

References

Adeniyi, O., Oladele, D., & Ajayi, T. (2022). Prevalence and correlates of Internet Gaming Disorder among Nigerian university students. Journal of Behavioral Addictions, 11(3), 451–463. https://doi.org/10.1556/2006.2022.00035

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Arlington, VA: American Psychiatric Publishing.

American Psychiatric Association. (2022). Diagnostic and statistical manual of mental disorders (5th ed., text rev.). Washington, DC: APA.

American Psychiatric Association. (2022). Diagnostic and Statistical Manual of Mental Disorders (5th ed., text rev.; DSM-5-TR). Arlington, VA: American Psychiatric Publishing.

Anto, R., Swati Atreya, S., & Ford, T. (2024). The role of casual and immersive video games in stress reduction and emotional regulation among university students. Journal of Educational Technology & Society, 27(2), 45–58.

Baumeister, R. F., &Vonasch, A. J. (2019). Self-control, value, and motivation. Current Opinion in Psychology, 29, 111–115. https://doi.org/10.1016/j.copsyc.2019.03.012

Brand, M., Young, K. S., Laier, C., Wölfling, K., & Potenza, M. N. (2019). Integrating psychological and neurobiological approaches to Internet gaming disorder. Frontiers in Psychology, 10, 93. https://doi.org/10.3389/fpsyg.2019.00093

Brand, M., Young, K. S., Laier, C., Wölfling, K., & Potenza, M. N. (2019). Integrating psychological and neurobiological considerations regarding the development and maintenance of specific Internet-use disorders: An interaction of person-affect-cognition-execution (I-PACE) model. Neuroscience &Biobehavioral Reviews, 71, 252–266. https://doi.org/10.1016/j.neubiorev.2016.08.033

Chen, C. Y., Weng, L. J., Su, Y. J., Wu, H. M., & Yang, P. F. (2020). Psychological and physical correlates of Internet gaming disorder among college students. Addictive Behaviors, 106, 106356.

Chen, Y., Zhang, S., Li, M., & Sun, R. (2020). Internet gaming disorder and its relationship with social, psychological, and physical well-being among university students. Journal of Behavioral Addictions, 9(2), 303–315. https://doi.org/10.1556/2006.2020.00020

Chiappe, P., Congdon, E., & Swanson, C. (2022). Cognitive benefits of action, puzzle, and strategy games in undergraduate populations. Computers in Human Behavior, 128, 107108.

Cui, X. (2024). Self-control as a protective factor against internet gaming disorder among adolescents. Journal of Behavioral Addictions, 13(1), 45–59. https://doi.org/10.1556/2006.2024.00001

De Ridder, D., Lensvelt-Mulders, G., Finkenauer, C., Stok, F., & Baumeister, R. (2018). Taking stock of self-control: A meta-analysis of how trait self-control relates to a wide range of behaviors. Personality and Social Psychology Review, 22(4), 354–377. https://doi.org/10.1177/1088868318776315

Duckworth, A. L., Gendler, T. S., & Gross, J. J. (2019). Self-control in school-age students: Effects on academic performance and health outcomes. Current Directions in Psychological Science, 28(4), 369–375.

Duckworth, A. L., Gendler, T. S., & Gross, J. J. (2019). Self-control in school-age children: Implications for academic achievement. Annual Review of Psychology, 70, 373–399. https://doi.org/10.1146/annurev-psych-010418-102842

Duckworth, A. L., Gendler, T. S., & Gross, J. J. (2019). Self-control in everyday life. Annual Review of Psychology, 70, 295–319. https://doi.org/10.1146/annurev-psych-010418-102842

Eliyani, E., and Sari, N. F. (2021). The effect of online game activities on student learn motivation. *Jurnal Pelita Pendidikan* 9, 65–70. doi: 10.24114/jpp.v9i2.23843

Emenike, G. C. (2023). Self-control and rational emotive behavior therapy on kleptomania tendencies among in-school adolescents in Aba Education Zone, Abia State (Unpublished master's thesis). Michael Okpara University of Agriculture, Umudike.

Ford, T., Chiappe, P., & Pallavicini, F. (2021). Digital literacy and cognitive enhancement through video games: VR and AR perspectives. Computers & Education, 164, 104119.

Friese, M., Messner, C., & Schaffner, Y. (2021). Mindfulness-based interventions and self-control: Evidence from experimental studies. Current Opinion in Psychology, 39, 50–56. https://doi.org/10.1016/j.copsyc.2020.09.010

Getachew, T., Ayele, T., & Abebe, S. (2021). Internet Gaming Disorder among adolescents in Addis Ababa: Prevalence and associated factors. BMC Psychiatry, 21, 305. https://doi.org/10.1186/s12888-021-03316-9

Hofmann, W., Schmeichel, B. J., & Baddeley, A. D. (2019). Executive functions and self-regulation. Trends in Cognitive Sciences, 23(4), 274–290. https://doi.org/10.1016/j.tics.2019.01.004

Huang, R., Yang, M., & Chen, Y. (2023). Prevalence and correlates of Internet Gaming Disorder among adolescents in China: A systematic review and meta-analysis. Frontiers in Psychiatry, 14, 1045123. https://doi.org/10.3389/fpsyt.2023.1045123

Inzlicht, M., & Schmeichel, B. J. (2017). What is ego depletion? Toward a mechanistic revision of the resource model of self-control. Perspectives on Psychological Science, 12(4), 461–474. https://doi.org/10.1177/1745691617690880

King, D. L., &Delfabbro, P. H. (2019). Internet Gaming Disorder. In K. S. Young & C. J. Park (Eds.), The Cambridge Handbook of Internet Addiction (pp. 223–246). Cambridge University Press.

King, D. L., &Delfabbro, P. H. (2019). Internet gaming disorder: Theory, assessment, treatment, and prevention. Elsevier Academic Press.

King, D. L., &Delfabbro, P. H. (2019). Predisposing factors and consequences of Internet gaming disorder: A review of empirical research. Current Addiction Reports, 6(2), 144–152.

King, D. L., Delfabbro, P. H., & Griffiths, M. D. (2020). Cognitive-behavioral approaches to problematic Internet gaming: Evaluation and treatment. Journal of Behavioral Addictions, 9(1), 1–10. https://doi.org/10.1556/2006.2020.00003

King, D. L., Delfabbro, P. H., Wu, A. M., Zhu, Y., & Kuss, D. J. (2017). Internet gaming disorder in East Asia: Prevalence, predictors, and clinical implications. Asian Journal of Psychiatry, 29, 48–57. https://doi.org/10.1016/j.ajp.2017.03.002

Legault, L., &Inzlicht, M. (2013). Self-determination, self-control, and the pursuit of long-term goals. Motivation Science, 1(2), 87–99. https://doi.org/10.1037/mot0000004

Li, J., Zhang, X., & Chen, L. (2023). Social and educational benefits of online gaming among Chinese undergraduates: A qualitative study. Computers in Human Behavior Reports, 9, 100265.

Liu, Q., Wu, T., & Zhang, D. (2025). Effects of internet gaming disorder on physical health, mental health, and academic performance in college students: A meta-analysis. Computers in Human Behavior, 136, 107424. https://doi.org/10.1016/j.chb.2022.107424

Liu, Q., Zhao, R., & Wang, Y. (2025). Sleep disturbances, mental health, and academic performance in students with Internet gaming disorder. Journal of Behavioral Addictions, 14(1), 102–115.

Manchanayake, T., Perera, H., & Silva, K. (2022). Prevalence of Internet Gaming Disorder among adolescents in Sri Lanka: Implications for policy and intervention. Asian Journal of Psychiatry, 70, 103063. https://doi.org/10.1016/j.ajp.2021.103063

Marlatt, G. A., & Donovan, D. M. (2005). Relapse prevention: Maintenance strategies in the treatment of addictive behaviors (2nd ed.). New York: Guilford Press.

Miltenberger, R. G. (2016). Behavior modification: Principles and procedures (6th ed.). Boston: Cengage Learning.

Muthomi, L., Kamau, P., & Mwangi, J. (2021). Internet Gaming Disorder among university students in Kenya: Prevalence, gender differences, and associated factors. Journal of Behavioral Addictions, 10(4), 765–777. https://doi.org/10.1556/2006.2021.00063

Obi, O.P. (2015). Enuresis: A psycho-counselling approach. Barloz Publishers, Owerri, 58-64.

Obi, O.P. (2021). Self – control as a transformational counselling technique for behaviour change in Emerging issues in counselling and education in the 21st century. Festschrift in honour of C. U. U. U. Kadurumba Edited by U. N. Akanwa, A E. Inaja and O. P. Obi , 1 - 10

Pallavicini, F., Ferrari, A., & Mantovani, F. (2018). Online multiplayer games and the development of teamwork, communication, and creativity skills. Games for Health Journal, 7(3), 191–198.

Pontes, H. M., & Griffiths, M. D. (2019). Internet gaming disorder: Definition, measurement, epidemiology, and clinical implications. Frontiers in Psychology, 10, 813. https://doi.org/10.3389/fpsyg.2019.00813

Stevens, M., Dorstyn, D., & Ward, P. (2021). Global prevalence of Internet Gaming Disorder: A systematic review and meta-analysis. Addictive Behaviors, 118, 106856. https://doi.org/10.1016/j.addbeh.2021.106856

Sunday, O. J., Adesope, O. O., and Maarhuis, P. L. (2021). The effects of smartphone addiction on learning: a meta-analysis. *Comput. Hum. Behav. Rep.* 4:100114. doi: 10.1016/j.chbr.2021.100114

Swati Atreya, S., Anto, R., & Ford, T. (2022). Motivation, goal orientation, and persistence through gamified learning environments in higher education. Educational Technology Research and Development, 70(5), 1231–1248.

Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2018). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. Journal of Personality, 86(2), 274–289. https://doi.org/10.1111/jopy.12316

Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2020). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. Journal of Personality, 88(2), 274–292. https://doi.org/10.1111/jopy.12402

Witkiewitz, K., Marlatt, G. A., & Walker, D. (2020). Mindfulness and relapse prevention. In J. D. Brown, T. A. Fields, & L. W. Watkins (Eds.), Handbook of mindfulness and self-control (pp. 211–235). New York: Springer.

World Health Organization. (2019). International Classification of Diseases 11th Revision (ICD-11). Geneva: World Health Organization.