

Empirical Study of Self-Control and Cybercrime among University Students in Abuja, Nigeria

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ABSTRACT

Cybercrime has emerged as a significant social issue, particularly among young adults who are deeply immersed in digital technologies. This study investigates the relationship between self-control and involvement in cybercrime among university students. Drawing on Gottfredson and Hirschi's General Theory of Crime (GTC), the study hypothesizes that low self-control is positively associated with cyber-deviant behaviors, including hacking, online harassment, piracy, and fraudulent activities. Using a survey design and quantitative analysis, data were collected from 154 undergraduate students from multiple faculties across three private universities in Abuja. The 24-item, Self-Control Scale (SCS) was used to measure self-control (independent variable) and the 15-item, Cybercrime Involvement Questionnaire (CIQ). CIQ is designed to assess the extent to which individuals engage in various forms of online deviant behavior. Results indicate a statistically significant negative relationship between self-control and cybercrime involvement. The study contributes to criminological literature by demonstrating that traditional criminological concepts remain relevant in explaining digital-age deviance. Recommendations for digital citizenship education and preventive interventions are provided.

KEYWORDS: Self-Control, Cybercrime, University Students.

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I. INTRODUCTION

The fast-growing pace of digital technology has made it easier than ever for people to stay connected, share information, and carry out everyday tasks online. At the same time, however, this rapid technological shift has opened the door to a wide range of cybercrimes. University students, who rely heavily on digital tools for communication, learning, and social interaction, are especially vulnerable to both the benefits and the dangers that come with living in online spaces [1]. In recent years, issues such as unauthorized access to school systems, cyberbullying, identity theft, phishing scams, file piracy, and various forms of online fraud have become increasingly common among students [2]. These activities raise serious concerns not only for universities trying to protect their digital infrastructure, but also for the broader society that depends on responsible and secure online behavior. Researchers [3;4] suggests that individual psychological traits, especially self-control, play a crucial role in predicting deviant behavior. Supporting this claim, Gottfredson and Hirschi's General Theory of Crime argues that individuals with low self-control are more likely to engage in risky, impulsive, and unethical behaviors, including those facilitated by modern technologies [5]. Applying this theoretical lens, the present study empirically examines whether levels of self-control among university students significantly predict their involvement in cybercrime. The purpose of this study is to examine self-control and cybercrime among university students in

Abuja, Nigeria. The specific objective is to determine whether self-control would predict cybercrime among private university students in Abuja, Nigeria.

Research Hypotheses

H1. Self-control would significantly predict cybercrime among private university students in Abuja, Nigeria

II. CONCEPTUAL REVIEW

The conceptual review provides the foundation for understanding the major ideas and constructs that guide this study. Before examining the relationship between self-control and cybercrime among university students, it is important to clarify what these concepts mean, how they have been described in existing literature, and the ways in which they interact within the broader context of digital behavior. This section therefore focuses on unpacking the key concepts; self-control, cybercrime, and online behavior while highlighting their essential features and relevance to the population under study.

A. Concept of Cybercrime

The term cybercrime was not conceptualized by a single individual. Instead, it emerged gradually within academic, legal, and law-enforcement circles and the earliest formal use of the term is often credited to Donn B. Parker, a pioneering researcher in computer security [16]. For over a decade, Parker wrote extensively on computer misuse and was among the first scholars to categorize illegal computer activities, laying the foundation for what is now termed, cybercrime. His work provided the conceptual framework that researchers and policymakers would later expand upon once the internet era began. Sussman and Heuston's scholarly contributions in the 90s further popularized the concept [17]. Cybercrime refers to illegal or harmful activities conducted through digital devices or the internet [6]. It includes both criminal acts targeting computers and other online facilitated devices (e.g., hacking, malware distribution) and traditional crimes executed through digital means (e.g., fraud, harassment, identity theft). According to [7], some common cybercrime behaviours common within university populations include but are not limited to: software and media piracy, unauthorized access to institutional networks, online impersonation, cyberbullying and harassment, online examination malpractice, and financial cyber-fraud schemes. A plausible reason for the proliferation of cybercrime in student populations is that it is attractive to young people due to anonymity, perceived low risk, and the ease of executing offenses [8].

B. Concept of Self-Control

The concept of self-control has been discussed from a religious, moralistic and until recently scientific standpoint, as early psychologists for many decades have discussed its importance to human behaviour, however, the term gained significant prominence in criminology through the work of Michael Gottfredson and Travis Hirschi, who introduced it as the central concept in their General Theory of Crime published in 1990 [13;14]. They averred that low self-control is the principal cause that predisposes individuals to engage in a wide range of deviant or criminal behaviors. According to their postulation, people with low self-control tend to be impulsive, egocentric, easily frustrated, and attracted to simple or immediate forms of gratification, all traits that increase the likelihood of offending [13;14]. Their contribution made self-control one of the most influential constructs in explaining both traditional and modern forms of criminal behavior,

including cybercrime [14]. Self-control has been implicated in several studies, and a lack of it has been linked to behavioral problems such as deviance, criminality, and antisocial behaviour [9]. Self-control is the ability to regulate impulses, consider long-term consequences, and resist immediate gratification [10]. Individuals with high self-control tend to be patient, responsible, risk-averse, and reflective [11]. Conversely, those with low self-control often exhibit impulsivity, risk-taking, self-centeredness, and difficulty delaying gratification [12;14]. Self-control is shaped by early childhood socialization, parenting practices, and ongoing personal development [15]. In online environments, low self-control can lead individuals to take unethical shortcuts, retaliate quickly in digital disputes, or engage in risky online manipulation.

C. Relationship Between Self-Control and Cybercrime

Extensive research has been conducted over the years on the relationship between self-control and cybercrime, and consistently it has shown that self-control is a significant contributor in shaping how individuals behave online, especially when it comes to cybercrime [19;20]. These studies agree that people with low self-control tend to act more impulsively and are more likely to take risks, which increases their chances of engaging in harmful or illegal online activities. This pattern has been observed across different contexts and age groups, including university students who spend a significant amount of their daily lives in digital spaces [21]. Since cybercrime is often carried out under subterfuge, low-risk, and high-reward, it may be especially attractive to individuals with poor impulse control (low self-control) [22]. Empirical studies increasingly highlight this association. A number of empirical studies support this connection. For instance, [23] found that college students with lower levels of self-control were more likely to participate in cyberbullying, online harassment, and other forms of online aggression. Their research showed that individuals with impulsive tendencies often react on the spur of the moment to online conflicts or temptations without considering the long-term consequences, making them more vulnerable to committing cyber offenses. Similarly, [24] examined a variety of cyber-deviant behaviors (hacking attempts, digital piracy, and unauthorized access) to personal accounts and they reported that low self-control was a significant predictor of participation in these activities. Their findings have gained empirical support [25;26] and aligns with the characteristics Gottfredson and Hirschi described in their General Theory of Crime. Other studies have reinforced this pattern [27;28], and they suggest that students with poor self-control were not only more likely to engage in offline misconduct, but also more inclined to misuse digital technologies. These studies submitted that the anonymity and reduced supervision in online environments may amplify the impulsive tendencies associated with low self-control. In a more recent study, [29] found that self-control influenced how young people responded to peer pressure in digital settings. According to their findings, students with low self-control were more likely to engage in cyber-fraud and online deception when exposed to peers who support these behaviors. Collectively, these studies show that self-control is a consistent and significant factor in explaining why some students engage in cybercrime while others do not. While technology provides the tools and opportunities for wrongdoing, it is often an individual's ability or inability to regulate their impulses that determines whether they exploit those opportunities. This makes self-control an important psychological variable for understanding and preventing cybercrime among university populations.

D. Conceptual Framework

The Figure 1, above illustrates how self-control play a central role in shaping students' involvement in cybercrime. Self-control is viewed as the independent variable, while cybercrime involvement represents the dependent variable. The framework reflects how variations in self-control levels among university students in Abuja may influence the likelihood of engaging in illegality in online involvement. At the core of this framework, it is assumed that lower levels of self-control increase the probability of cybercrime involvement, while higher levels of self-control reduce such tendencies. This provides the basis for hypothesis development and guides the measurement of both constructs in this study.

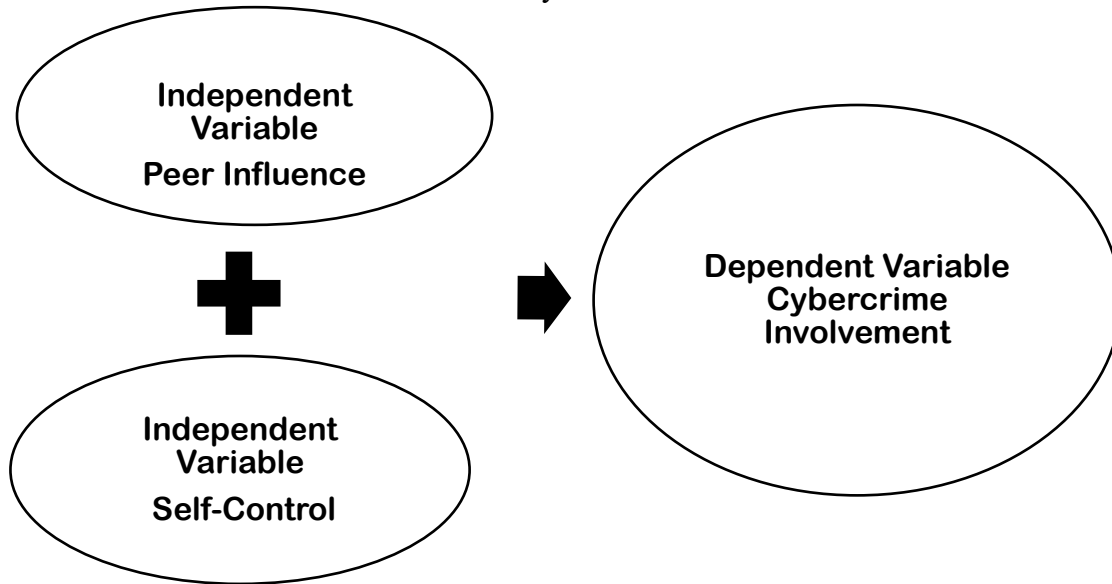


Figure 1: Conceptual Frame Work Showing the how External Negative Influences Interact with Self-Control and Lead to Cybercrime Involvement

E. Theoretical Review

This study employed the following models:

- (a). General Theory of Crime (GTC): The GTC was developed by Gottfredson and Hirschi in 1990 [30], and is the primary theoretical framework for this study. According to the theory, crime is a direct function of low self-control. This theory assumes that individuals with low self-control pursue immediate gratification. The GTC posited that crime is seen as, easy, exciting, and risky, aligning with the traits of low self-control individuals. This suggest that online environment provides anonymity, minimal supervision, and instant opportunities for deviance. As such, many cybercrimes involve minimal physical effort, making them appealing to impulsive individuals. Thus, the GTC predicts a negative relationship between self-control and cybercrime involvement.
- (b). Social Learning Theory (SLT): SLT was developed by Albert Bandura in 1977 to explain how people learn behaviors through observation, imitation, and reinforcement [31]. Bandura proposed that individuals do not learn only through direct experience; they also adopt behaviors displayed and reinforced by social environments. The SLT assumes that learning occurs socially, that behavior is influenced by rewards or punishments, and that cognition plays a role in interpreting observed actions [31]. In relation to cybercrime, SLT suggests that students may engage in any of

the cyber related crime (hacking, piracy, or online fraud) after observing peers, influencers, or online communities who normalize, teach, or reward such digital misconduct. Bandura further suggests that peer groups may normalize behaviors like software piracy or hacking and online communities and forums provide tutorials and moral justification for cybercrime. Self-control has a significant effect on the extent to which individuals learn or adopt deviant cyber-practices. Overall, empirical evidence supports the idea that self-control is a consistent predictor of cybercrime involvement in student populations.

III. METHODOLOGY

This study employed a descriptive survey research design to examine the relationship between self-control and cybercrime among university students.

(a). Participants and Sampling Technique: The population consisted of undergraduate students from three private universities in Abuja. The universities were; Baze University [$n=55$], Nile University [$n=46$], and Veritas University [$n=53$]. Convenience sampling technique yielded 154 participants across faculties such as Science, Social Sciences, Engineering, and Arts. Participants characteristics showed that Male 103[66.8%], Female 51[33.2%]. Christians 89[57.7%], Muslims 47[30.5%] and traditional believers 18[11.6%].

(b). Instruments: Two standardized instruments were used to collect data for this study through google documents using students email address and WhatsApp number. The 24-item, Self-Control Scale (SCS) was used to measure self-control (independent variable). The SCS was developed in 1993 by [33], as a self-report measure to operationalize Gottfredson and Hirschi's General Theory of Crime. The SCS was scored on 4 response set Likert scale assessing impulsivity, risk-taking, self-discipline, and temper (4=Strongly Agree to, 1= Strongly Disagree). Sample items include "*I often act on the spur of the moment without thinking*", "*I enjoy taking risks*" and "*I am self-indulgent at time*". The SCS showed a Cronbach alpha reliability of .93. Nigerian authors who have made use of scale reported consistency of .91 [32]. The Cybercrime Involvement Questionnaire (CIQ) is a 15-Item, self-report instrument developed by [35]. CIQ is designed to assess the extent to which individuals engage in various forms of online deviant behavior. It evaluates participation in activities such as hacking, online fraud, identity theft, phishing, cyberbullying, and digital piracy. The CIQ uses a Likert-type scale (e.g., 1 = Never, 5 = Very Frequently) to measure the frequency of engagement in these behaviors. Higher scores indicate greater involvement in cybercrime. Sample of items include "*I have accessed someone else's online accounts without permission*", "*I have shared my login credentials with others to access restricted content*" and "*I have downloaded or distributed copyrighted material illegally*". The CIQ showed a Cronbach alpha reliability of .89. Nigerian authors who have made use of CIQ reported consistency of .80 [34]. The CIQ has been widely used in criminological and cyber-psychology research to quantify cyber-offending patterns among students and young adults, providing reliable data for examining the relationship between personal traits (e.g., self-control) and online criminal behavior.

(c). Data Analysis: Data were analyzed using descriptive statistics and Pearson's correlation coefficient to test the relationship between self-control and cybercrime. Regression analysis was conducted to determine predictive strength.

IV. RESULTS AND DISCUSSION

Table 1 presents the Pearson Product Moment Correlation (PPMC) coefficients among the key variables of the study: Age, gender, self-control and cybercrime involvement.

Table 1: Showing the PPMC Correlation Matrix of Study Variables

Variables	1	2	3	4	5
1. Age	1				
2. Gender	.18**	1			
3. Religion	.10	.16*	1		
4. Self-Control	.08	-.12	.019	1	
5. Cybercrime Involvement	.24*	.31*	-.13	.63*	1
Mean	19.3	-	-	1.96	1.04
SD	.250	-	-	1.00	0.96

Note: * $p < 0.01$, ** $p < 0.05$, $N = 154$; Gender was coded: Female=1, Male=2; etc.

The results of the PPMC indicate significant positive correlation between participants age and cybercrime involvement [$r = .24$, $p < 0.01$], suggesting that age influences cybercrime involvement. Gender was also positively associated with cybercrime involvement among private university students [$r = .31$, $p < 0.01$], indicating that student's gender is a determinant of cybercrime involvement. However, university students' religion negatively correlated with cybercrime involvement, suggesting that university students with increase religious perception will exhibit lesser tendencies to engage in cybercrime ($r = -.13$, $p < 0.01$). With regards to the study's independent variable, the result showed that self-control has an indirect relationship with cybercrime involvement, suggesting that university students who exercise self-control are unlikely to engage in cybercrime involvement and vice versa.

Hypothesis Testing

This study's hypothesis stated that self-control will significantly predict cybercrime behaviour among private university students in Abuja. This hypothesis was tested using simple linear regression analysis, and the result is presented in Table 2.

Table 2: Summary of Simple Linear Regression Analysis Showing Self-Control as Predictor of Cybercrime Behaviour among Undergraduates in Baze University Nigeria

Model		Unstandardized Coefficients		Standardized Coefficient	t	Sig
1		B	Std. Error	β		
Cybercrime Involvement	Constant	-1.67	.26		-2.56	.01
	Self-Control	.18	.04	-.33	2.68	.01

The result in Table 2 shows that self-control significantly indirectly predicted cybercrime involvement among undergraduate students [$\beta = -.33$, $t = 7.588$, $p < .01$]. This indicates that university students who score significantly higher scores in the self-control measure. Showed significantly lower tendency to involve in cybercrime. Based on this outcome, hypothesis H1 was confirmed and accepted, demonstrating that self-control is a significant psychological risk factor for cybercrime involvement.

The findings show that self-control is a significant predictor of cybercrime among university students. The negative correlation indicates that individuals with low self-control are more likely to engage in digital deviance. This aligns with previous findings [36;37]. The finding that self-control predicts cybercrime among university students is well supported and it fits well with the GTC, as argues that people with low self-control are more prone to impulsive, risky, and opportunistic behavior. Cybercrime naturally appeals to these tendencies because it is often easy to perpetuate as it carries a sense of anonymity, and offers quick rewards with minimal physical effort. For students who struggle with delaying gratification or managing impulses, the temptation to engage in online piracy, hacking attempts, or fraudulent activities becomes highly likely. The negative correlation, therefore, makes sense those with lower self-control are simply less likely to pause, consider consequences, or resist opportunities for digital misconduct. The online environment removes many of the barriers that normally discourage deviance, which further explains why low self-control shows such a strong link to cyber-offending given the study's participants.

V. CONCLUSION

The study demonstrates a significant inverse relationship between self-control and cybercrime involvement among university students. Students with lower self-control levels are more likely to engage in cyber-deviant behaviors. Universities should implement programs that promote digital ethics, cyber-security awareness, and psychological development, including self-regulation training. Based on the findings of the study. The following recommendations were made to reduce the spate of cybercrime in universities. Firstly, I would recommend that university management should integrate digital citizenship and ethics into university curricula, so as to create digital footprints so that perpetrators will into feel so much invincible. Secondly, the university management should provide workshops for students on self-regulation, emotional control, and responsible technology use so as to strengthen institutional cybersecurity policies and monitoring systems. University management should encourage "peer mentoring" to reduce normalization of cybercrime behaviors. It is also recommended that future studies should conduct additional longitudinal studies to examine causal relationships.

REFERENCES

1. Riboldi, I., Calabrese, A., Piacenti, S., Capogrosso, C. A., Paioni, S. L., Bartoli, F., Carrà, G., Armes, J., Taylor, C., & Crocamo, C. (2024). Understanding university students' perspectives towards digital tools for mental health support: A cross-country study. *Clin Pract Epidemiol Ment Health*. <https://doi.org/10.2174/0117450179271467231231060255>.
2. Roland Olanrewaju Oladehin (2025). Cybercrime among undergraduate students: problems and solutions. a case study of Nigeria. *International Journal of Research and Innovation in Social Science (IJRISS)*, 9(02), 4569-4589. <https://doi.org/https://dx.doi.org/10.47772/IJRISS.2025.9020360>

3. Vazsonyi, A. T., & Jiskrova, G. K. (2018). On the development of self-control and deviance from preschool to middle adolescence. *Journal of Criminal Justice*, 56, 60-69. <https://doi.org/10.1016/j.jcrimjus.2017.08.005>.
4. Boman, J. H., Mowen, T. J., & Higgins, G. E. (2019). Social learning, self-control, and offending specialization and versatility among friends. *American Journal of Criminal Justice*, 44(1):3-22. <https://doi.org/10.1007/s12103-018-9445-7>
5. Schmitt, H. S., Sindermann, C., & Montag, C. (2024). Moral disengagement and low self-control make a versatile rulebreaker: A partial test of situational action theory across various manifestations of deviance. *Deviant Behavior*, 1–37. <https://doi.org/10.1080/01639625.2024.2398529>
6. Sukhai, N. B. (2004). *Hacking and cybercrime*. In Proceedings of the 1st annual conference on Information security curriculum development (InfoSecCD '04). Association for Computing Machinery, New York, NY, USA, 128–132. <https://doi.org/10.1145/1059524.1059553>
7. Igba, D. I., Igba, E. C., Nwambam, A. S., Nnamani, S. C., Egbe, E. U., & Ogodo, J. V. (2018). Cybercrime among university undergraduates: Implications on their academic achievement. *International Journal of Applied Engineering Research*, 13(2), 1144-1154. https://www.ripublication.com/ijaer18/ijaerv13n2_43.pdf
8. Abah, J., & Agada, P. (2025). Students' vulnerability to cybercrime: Implications for cybersecurity in the global south. *International Journal of Didactic Mathematics in Distance Education*. 2. 141-164. <https://doi.org/10.33830/ijdmde.v2i2.11869>
9. Tittle, C., Ward, D., & Grasmick, H. (2003). Self-control and crime/deviance: Cognitive vs. behavioral measures. *Journal of Quantitative Criminology*. 19. 333-365. <https://doi.org/10.1023/B:JOQC.0000005439.45614.24>.
10. Duckworth, A., & Steinberg, L. (2015). Unpacking self-control. *Child Dev. Perspect.*, 9(1):32-37. <https://doi.org/10.1111/cdep.12107>.
11. Arneklev, B. J., Grasmick, H. G., Tittle, R. C., & Bursik Jr., R. J. (1993). Low self-control and imprudent behavior. *Journal of Quantitative Criminology*, 9(3), 225-247.
12. Sela-Shayovitz, R., Levy, M., & Hasson, J. (2024). The role of self-control in cyberbullying bystander behavior. *Social Sciences*, 13(1), 64. <https://doi.org/10.3390/socsci13010064>
13. Gottfredson M. R. (1981). On the etiology of criminal victimization. *Journal of Criminal Law and Criminology*, 72, 714–726. <https://doi.org/10.2307/1143011>
14. Gajos, J. M., & Boutwell, B. B. (2024). Evolution, the cognitive sciences, and the science of victimization. *Evolutionary Psychology*, 22(1):14747049231225146. <https://doi.org/10.1177/14747049231225146>
15. Johnson, S. B., Voegtline, K. M., Ialongo, N., Hill, K. G., & Musci, R. J. (2023). Self-control in first grade predicts success in the transition to adulthood. *Dev Psychopathology*, 35(3):1358-1370. <https://doi.org/10.1017/S0954579421001255>.
16. Parker, Donn B., (1976). *Crime by computer*. Scribner's, New York.
17. Parker, D. B. (1978). *Ethical conflicts in computer science and technology*. AMPS Press.
18. McQuade, III, Samuel, C., (2011). *Cybercrime*, in Michael Tonry (ed.), *The Oxford Handbook of Crime and Public Policy*. <https://doi.org/10.1093/oxfordhb/9780199844654.013.0020>.
19. Back, Sinchul; Soor, Sadhika; and LaPrade, Jennifer (2018) Juvenile Hackers: An Empirical Test of SelfControl Theory and Social Bonding Theory, *International Journal of Cybersecurity Intelligence & Cybercrime*: 1(1), 40-55. <https://www.doi.org/10.52306/01010518VMDC9371>

20. Afachung, P., Boboye, A., Uye, E., & Olapegba, P. (2023). Self-control, materialism, and need for achievement as predictors of cybercrime behaviour among youths in Ibadan metropolis. 6. 1-25.
21. Han, S. J., Nagduar, S., & Yu, H. J. (2023). Digital addiction and related factors among college students. *Healthcare (Basel)*, 10;11(22):2943. <https://doi.org/10.3390/healthcare11222943>
22. Partin, R. D., Meldrum, R. C., Lehmann, P. S., Back, S., & Trucco, E. M. (2022). Low self-control and cybercrime victimization: An examination of indirect effects through risky online behavior. *Crime & Delinquency*, 68(13-14), 2476-2502. <https://doi.org/10.1177/00111287211061728>.
23. Shadmanfaat, S. M., Howell, C. J., Muniz, C. N., Cochran, J. K., Kabiri, S., & Richardson, D. A. (2018). The predictive ability of self-control and differential association on sports fans' decision to engage in cyber bullying perpetration against rivals. *Criminology Faculty Publications*. 8. https://digitalcommons.usf.edu/cjp_facpub/8
24. Lewulis, P. (2024). Detecting online offenders. <https://doi.org/10.4324/9781032680194-6>.
25. Marcum, C., Higgins, G., Wolfe, S., & Ricketts, M. (2011). Examining the intersection of self-control, peer association and neutralization in explaining digital piracy. *Western Criminology Review*. 12. 60-74.
26. Durkin, K. F. (2007). Show me the money: Cybershrews and on-line money masochists. *Deviant Behavior*, 28(4), 355–378. <https://doi.org/10.1080/01639620701233290>
27. Moon, B., Mccluskey, J., Blurton, D., & Hwang, H. (2013). Parent and teacher practices as sources of low self-control: Evidence from Korea. *Youth Violence and Juvenile Justice*. 12. 167-187. <https://doi.org/10.1177/1541204013481982>.
28. Li, S., Ren, P., Chiu, M., Wang C., & Lei, H. (2021). The relationship between self-control and internet addiction among students: A meta-analysis. *Frontiers in Psychology*, 12. <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2021.735755>
<https://doi.org/10.3389/fpsyg.2021.735755>
29. Merel, M. L., Leijse, I. M., Koning, R., J. M. & Van den Eijnden, (2023). The influence of parents and peers on adolescents' problematic social media use revealed. *Computers in Human Behavior*, 143. <https://doi.org/10.1016/j.chb.2023.107705>.
30. Gottfredson, M. R., & Hirschi, T. (1990). *A General Theory of Crime*. Stanford, CA: Stanford University Press.
31. Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs, NJ: Prentice-Hall, Inc.
32. Suleiman, H. (2024). The relative effects of contingency management and token reinforcement strategies on self -control levels of remand home inmates in Nigeria. 31-38. <https://doi.org/10.9790/7388-0704053138>.
33. Grasmick, H. G., Tittle, C. R., Bursik, R. J., & Arneklev, B. J. (1993). Testing the core empirical implications of Gottfredson and Hirschi's general theory of crime. *Journal of Research in Crime and Delinquency*, 30(1), 5–29. <https://doi.org/10.1177/0022427893030001002>
34. Odo, C. & Odo, A. (2022). The extent of involvement in cybercrime activities among students' in tertiary institutions in Enugu state of Nigeria. *Global Journal of Computer Science and Technology: Information & Technology*, 22 (3), 64-68.
35. Willer, B., Rosenthal, M., Kreutzer, J. S., Gordon, W. A., & Rempel, R. (1993). Community Integration Questionnaire (CIQ) [Database record]. APA PsycTests. <https://doi.org/10.1037/t01841-000>

36. Bossler, A. & Holt, T. (2010). The effect of self-control on victimization in the cyberworld. *Journal of Criminal Justice*. 38. 227-236. <https://doi.org/10.1016/j.jcrimjus.2010.03.001>.
37. Donner, C., Marcum, C., Jennings, W., Higgins, G., & Banfield, J. (2014). Low self-control and cybercrime: Exploring the utility of the general theory of crime beyond digital piracy. *Computers in Human Behavior*. 34. 165–172. <https://doi.org/10.1016/j.chb.2014.01.040>.