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Low Self-Control and Cyber Victimization Among Spamast Students: The Mediating Effect of Cyberspace Addiction

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ABSTRACT

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This study aimed to assess and explore the levels and relationships among low self-control, cyber victimization, and cyberspace addiction among students of Southern Philippines Agribusiness and Marine and Aquatic School of Technology (SPAMAST). Using a descriptive-correlational research design, the study involved 359 participants who completed adapted survey questionnaires. The results revealed that self-control varied across dimensions: physical activities received the highest ratings, while self-centeredness was lowest, resulting in an overall self-control mean. Cyber victimization scores indicated students experienced considerable distress, though the perceived severity of their victimization was lower, with the overall mean. For cyberspace addiction, online gaming was the most prominent, whereas social media addiction was less frequent, with a total mean. Correlation analyses showed moderate positive relationships between low self-control and cyber victimization, low self-control and cyberspace addiction, and cyberspace addiction and cyber victimization. Mediation analysis, confirmed by the Sobel

Test, highlighted the significant role of cyberspace addiction in mediating the relationship between low self-control and cyber victimization, underscoring its importance in this dynamic. Additionally, cyberspace addiction directly impacts cyber victimization, further emphasizing the importance of addressing cyberspace addiction when considering factors that contribute to cyber victimization among students. These findings are essential for criminological research and interventions involving youth.

INTRODUCTION

Various studies have indicated an increased incidence of cyber victimization among adolescents in several countries worldwide (Athanasiou et al., 2018; Baiden, 2019; Chamizo-Nieto & Rey, 2023). The rising use of the internet and modern technology devices as required methods of adolescent socialization has been deemed "the most serious and widespread" issue, causing problems in schools, the workplace, and every social context (Robinson &Patherick, 2017).

Partin et al. (2022) found that low self-control was a good predictor of an online context. However, the significant effects of situational variables were opposite to what was expected.

With the fast growth of ICTs, the internet has made it almost too easy for crimes to happen. There is some evidence that low self-control can lead to certain types of cyber victimization (Li et al., 2016). Additionally, cyber addiction has been linked to increased rates of cyber victimization. Therefore, cyberspace addiction may be the mediating factor between low self-control and cyber victimization (Álvarez-García et al., 2019).

The purpose of the study was to examine the potential mediating effect of cyberspace addiction on the relationship between cyber victimization and low self-control among students. It might be possible to develop strategies to reduce cyber victimization and cyberspace addiction by figuring out how these two things are related. This study reviewed the relevant literature to show how cyberspace addiction can influence the link between cyberspace victimization and low self-control among SPAMAST students. None of the previous studies investigated the mediating effect of cyberspace addiction on the link between being cyber-victimized and having low self-control on the SPAMAST campus. For this purpose, the researchers conducted the study.

MATERIALS AND METHODS

Study Area

The study focused on the mediating effect of cyberspace addiction on the relationship between low self-control and cyber victimization among SPAMAST students. The study used stratified random sampling to select 359 respondents from the 3815 students in SPAMAST. The study was conducted as a face-to-face survey with strict implementation of all the guidelines of the DOH and the IATF to guarantee the health and safety of the students/ respondents. The study was commenced in August 2023. The researchers interviewed and surveyed the students and respondents who participated in the study. Adapted survey questionnaires were utilized as an instrument in this study, to wit: Grasmick et al. (1993) on Low Self-Control; Li et al. (2019) on Cyber Victimization and Cyberspace Addiction by Hawi and Samaha (2017); Zhang et al. (2022). This was used for the data gathering in a survey to obtain the study's objectives. The scope of this study is limited to the population of SPAMAST students and excludes other concerns that are not pertinent to the study.

RESULTS

Level of Low Self-control Measures among SPAMAST Students

Table 1. *Level of Low Self-control Measures among SPAMAST Students*

Impulsivity	Mean	STD. Deviation	Description
I often act on the spur of the moment without stopping to think.	3.19	0.8508	Moderate
I do not devote much thought and effort to preparing for the future.	2.71	1.28	Moderate
I often do whatever pleases me here and now, even at the cost of some distant goal.	3.24	0.9872	Moderate
I am more concerned with what happens to me in the short run than in the long run.	3.42	1.07	High
Category Mean	3.14	1.09	Moderate
Simple Task			
I frequently try to avoid projects that I know will be difficult.	2.66	1.18	Moderate
When things get complicated, I tend to quit or withdraw.	2.52	1.17	Low
The things in life that are easiest to do bring me the most pleasure.	3.38	0.9926	Moderate
I dislike challenging tasks that stretch my abilities to the limit.	2.8	1.1	Moderate

Category Mean	2.84	1.15	Moderate
Risk-Seeking			
I like to test myself now and then by doing something a little risky.	3.69	0.9794	High
Sometimes I will take a risk just for the fun of it.	3.29	1.06	Moderate
I sometimes find it exciting to do things for which I might get in trouble.	2.68	1.16	Moderate
Excitement and adventure are more important to me than security.	2.91	1.2	Moderate
Category Mean	3.14	1.16	Moderate
Physical Activities			
If I had a choice, I would almost always do something physical instead of something mental.	3.49	0.9655	High
I almost always feel better when I am on the move than when I am sitting and thinking.	3.52	0.9825	High
I like to get out and do things more than I like to read or contemplate things.	3.4	0.9461	High
I seem to have more energy and a greater need for activity than most other people my age.	3.45	0.8665	High
Category Mean	3.47	0.9409	High
Self-Centeredness			
I try to look out for myself first, even if it means causing inconvenience to others.	3.31	0.9954	Moderate
I am not very sympathetic to other people when they are having problems.	2.88	1.09	Moderate
If my actions upset other people, it is their problem, not mine.	2.68	1.13	Moderate
I will try to get things I want even when I know it is causing problems for other people.	2.49	1.29	Low
Category Mean	2.84	1.16	Moderate
Temper			
I lose my temper very easily.	3.13	1.11	Moderate
Often, when I am angry at people, I feel more like hurting them than talking to them about why I am angry.	2.95	1.19	Moderate
When I am furious, other people had better stay away from me.	2.94	1.2	Moderate

When I have a serious disagreement with someone, it is usually hard for me to talk calmly about it without getting upset	3.26	1.06	Moderate
Category Mean	**3.07**	**1.14**	**Moderate**
OVERALL MEAN	**3.08**	**0.8205**	**Moderate**

Notably, as shown in Table 1, physical activities received the highest category mean score of 3.47 (high), and item number 13 obtained the highest mean score of 3.52 (high), which implies that SPAMAST students almost always feel better when they are on the move than when they are sitting and thinking. The results suggest potential challenges in adhering to exercise routines or maintaining a healthy lifestyle, emphasizing the importance of interventions to promote consistent physical activity, given the health implications associated with low self-control (Forrest, 2019).

The results align with the findings of Galla and Duckworth (2015), stating that engaging in regular physical activity is linked to improved mood, reduced stress, and enhanced cognitive function. In the context of students with low self-control, physical activity may contribute to better emotional well-being and stress management. Amazingly, physical activities have been shown to influence executive functions, including self-control and attention positively (Ahn et al., 2016).

Additionally, Boat and Cooper (2019) stated that students who participated in physical activity demonstrated improvements in cognitive functions, including aspects of self-control. Therefore, the high levels of physical activity observed among students might contribute to enhancing their cognitive abilities, potentially mitigating some of the challenges associated with low self-control. Promoting an active lifestyle could be a valuable component in addressing self-control issues among students. Curry and Zavala (2020) stated that people who engage in physical activities are thought to have a low tolerance for frustration, be more self-focused, and prefer physical over mental tasks.

Meanwhile, the simple task had the lowest category mean score of 2.84 (moderate), and item number 6 had the lowest mean score of 2.52 (low), which implies that the respondents tend to quit or withdraw when faced with complexity. The results suggest that breaking down tasks into more manageable components can have a moderate effect on students' self-efficacy. This underscores that the success in simpler tasks can contribute to the development of self-control, fostering a belief in one's capability to handle more challenging tasks (Wickens, 2020; Landers et al., 2017). This aligned with de Ridder et al.'s (2018) perspectives that recognize the importance of cultivating a growth mindset, emphasizing that abilities can be developed through effort and learning.

On the other hand, the self-centeredness also got the lowest category mean score of 2.84 (moderate), and the item number 20 got the lowest mean

score of 2.49 (low), which implies that the respondents will try to get things they want even when they know it is causing problems for other people. A measured level of moderate self-centeredness empowers students to make decisions based on their values and preferences, fostering a sense of their academic and personal choices (Jacobs et al., 2022).

According to Bluth and Blanton (2015), individuals with moderate self-centered tendencies might possess a distinct advantage in adapting to changing environments. Students who maintain a balanced sense of self-centeredness appear to be more receptive to embracing new challenges, acquiring diverse skills, and navigating transitions with greater ease. In academic settings, a moderate level of self-centeredness translates into heightened motivation and focus, enabling students to set ambitious goals, prioritize personal academic success, and exhibit perseverance in the face of challenges, ultimately contributing to improved academic performance (Chew & Ang, 2023).

Dambrun and Richard (2011) revealed that individuals who possess a moderate degree of self-centeredness are inclined to place trust in their judgment when confronted with decision-making. Moderately self-centered individuals exhibit an enhanced capacity to navigate intricate choices, utilizing their self-knowledge and past experiences to make well-informed decisions. In line with this perspective, Higgins et al. (2022) put forth the idea that self-centeredness, when moderated appropriately, can contribute positively to the development of a resilient and well-balanced self-concept.

Furthermore, the overall mean of 3.08 (moderate) was generated, which indicates that SPAMAST institution practices a level of moderate self-control across different measures, emphasizing the prevalence of these behaviors. De Ridder et al. (2018) suggest that individuals with moderate self-control may display flexibility in goal pursuit to adapt to changing circumstances and reevaluate their goals. It might be linked to lower stress levels resulting from reduced pressure to attain perfection. Students with moderate self-control may find a balance between achieving their goals and maintaining a healthy well-being.

Audiffren and Andre (2015) proposed that moderate self-control may contribute to better adaptation to stressors, allowing students to cope with challenges without resorting to impulsive or overly avoidant strategies. This adaptability enables them to respond effectively to evolving circumstances, demonstrating a willingness to adjust their goals as needed. This, in turn, suggests that individuals with this level of self-control may adeptly navigate challenges, demonstrating the capacity to cope effectively without succumbing to impulsive decisions or excessively avoidant behaviors.

Level of Cyber Victimization among SPAMAST Students

Table 2. *Level of Cyber Victimization among SPAMAST Students*

Misuse of Personal Information	Mean	STD. Deviation	Description
I experienced having "poser" accounts on social media.	2.67	1.4	Moderate
I have accounts used to subscribe to mobile and internet services without anyone's knowledge.	2.73	1.21	Moderate
My bank accounts had unusual purchases or credit card charges.	1.99	1.15	Low
I am aware that some people use false names in contact tracing or medical services to acquire access or avoid negative repercussions.	2.94	1.2	Moderate
Category Mean	2.58	1.31	Low
Perceived Victimization Severity			
I have been scammed, and it has caused many problems in my life.	2.6	1.27	Moderate
I suffered greatly as a result of the fraudulent use of personal information	2.54	1.2	Low
Category Mean	2.57	1.24	Low
Perceived Distress			
The misuse of my personal information made me feel betrayed.	3.22	1.19	Moderate
I felt embarrassed and helpless after being a victim of cybercrimes.	3.22	1.2	Moderate
I had anxiety in terms of entrusting personal information to others.	3.5	1.08	High
Category Mean	3.31	1.16	Moderate
OVERALL MEAN	2.78	1.05	Moderate

Table 2 shows the aspects of cyber victimization experiences among SPAMAST students. As shown in Table 6 above, the perceived distress got the highest category mean score of 3.31 (moderate), and the item number 10 got the highest mean score of 3.50 (high), which indicates that SPAMAST students had anxiety in terms of entrusting personal information to others. The findings reveal that the level of emotional distress underscores the potential psychological impacts on students, with variations in reported distress levels indicating that some students may be significantly more affected than others (Villora et al., 2020; Jiang et al., 2021).

The results suggest that students who perceive moderate distress due to cyber victimization may become reluctant to engage in social interactions

both online and offline (Gross et al., 2016). This withdrawal can hinder the development of crucial social skills and contribute to a sense of alienation, potentially impacting long-term social and emotional well-being. Additionally, the fear of continued victimization may lead students to disengage from educational activities, affecting their academic progress and prospects (Wright, 2015).

Meanwhile, the perceived severity of victimization in cyber victimization got the lowest category mean score of 2.57 (low), and item 7 got the lowest mean of 2.54 (low), which implies that SPAMAST students suffer significantly as a result of fraudulent use of personal information. This suggests that students who perceive a low severity of victimization often exhibit higher levels of resilience and better coping mechanisms. Amazingly, reduced perception of victimization severity can contribute to a more robust mental health profile among students (Abbott & McGrath, 2017).

Li et al. (2019) stated that students who perceive victimization as less severe may be more resilient in the face of online challenges, adapting and coping more effectively with the negative experiences. This result aligned with the study of Elmas (2021), which found that individuals with a lower perceived victimization severity may exhibit greater resilience. Moreover, a low perceived severity of cyber victimization may contribute to a positive online environment by fostering a sense of empowerment among students. This perspective, aligned by Hille et al. (2015), suggests that a positive perception of online interactions can lead to increased participation and a sense of empowerment in the digital realm. In this way, a lower perceived severity of cyber victimization might encourage students to embrace the benefits of the online environment and leverage it for educational and social purposes.

Furthermore, the overall mean score of 2.78 (moderate) of cyber victimization indicates that they value and secure their data to prevent possible exploitation. The results suggest that individuals who perceive a moderate cyber victimization are more inclined to value and secure their data. This aligns with the idea that experiences of victimization may motivate individuals to adopt proactive measures to protect their digital assets (Kim & Lee, 2020).

In addition, young people are particularly vulnerable to becoming cyber victims because of their greater comfort with and use of digital technologies like smartphones, computers, and the internet (Gonultas, 2022; Al Qudah et al., 2020). This emphasizes that victimization by cybercrime would impact one's impression of interpersonal relationships and subjective well-being. It was also discovered that being a victim of cybercrime was negatively correlated with online trust, perceived control, fairness, life satisfaction, and happiness (Cheng et al., 2020; Holt & Bossler, 2015; Reyns et al., 2015).

Level of Cyberspace Addiction among SPAMAST Students

Table 3. *Level of Cyberspace Addiction among SPAMAST Students*

Social Media Addiction	Mean	STD. Deviation	Description
I often think about social media when I am not using it.	3.19	1.04	Moderate
I often use social media for no particular reason.	3.42	1.08	High
Arguments have arisen with others because of my social media use.	2.66	1.2	Moderate
I interrupt whatever else I am doing when I feel the need to access social media.	3.04	1.1	Moderate
I feel connected to others when I use social media.	3.72	1	High
I lose track of how much I am using social media.	3.02	1.03	Moderate
The thought of not being able to access social media makes me feel distressed.	3.01	1.1	Moderate
I have been unable to reduce my social media use.	3.04	1.04	Moderate
Category Mean	3.14	1.11	Moderate
Online Gaming Addiction			
I often think of video games even when I am not using a personal computer, a gaming console, or a mobile phone.	2.8	1.26	Moderate
I get irritated if I cannot play games.	2.41	1.18	Low
I find that I must increase my playing time to achieve the desired level of enjoyment and reduce stress.	2.81	1.21	Moderate
I have attempted to reduce my playing time because I feel it is getting out of hand.	3.09	1.11	Moderate
I have neglected my work or studies because of video games.	2.42	1.21	Low
I continue playing even though it is taking away my sleeping time.	2.45	1.14	Low
I had to conceal or lie about the extent of my playing time.	2.36	1.15	Low
My relationship with friends and family has been affected because I am playing too much.	2.3	1.25	Low
Category Mean	3.31	1.21	Moderate
OVERALL MEAN	**2.86**	**1.2**	**Moderate**

Table 3 presents the level of cyberspace addiction among SPAMAST students, focusing on social media addiction and online gaming addiction. As shown in the table above, the online gaming addiction got the highest category mean score of 3.31 (moderate), the item number 4 got the highest mean score of 3.09 (moderate), which implies that SPAMAST students have moderately attempted to reduce their playing time because they feel it is getting out of hand. The elevated mean suggests that students with a moderate addiction to online gaming often face challenges in establishing and maintaining healthy relationships, both online and offline, which further increases the negative social implications of their behavior (Forrest et al., 2016).

This dimension explores how online gaming addiction can lead to poor academic performance, as students may prioritize gaming over their studies, resulting in decreased concentration, procrastination, and ultimately, lower grades (Rosendo-Rios et al., 2022). It was suggested that many young people's fascination with video games could put them at risk for a range of problems relating to their social, emotional, and physical well-being (Forrest et al., 2016).

On the other hand, the social media addiction got the lowest category mean score of 3.14 (moderate), and item number 3 got the lowest mean score of 2.66 (low), which indicates that the SPAMAST students' arguments have arisen with others due to their social media use. The results suggest that in today's world, social media is essential; however, it changes how individuals communicate personally and professionally (Abbasi, 2019). Kirik et al. (2015) revealed that decreased social media engagement was linked to higher academic performance among college students. Students who reported lower social media use were found to allocate more time to academic tasks, resulting in heightened efficiency and task completion rates. Moreover, low social media addiction contributes to enhanced offline social connections.

Furthermore, the overall mean score of 2.86 (moderate) was generated, which means that students possess a moderate degree of familiarity, engagement, and interaction with various facets of cyberspace as they communicate with others on social network sites rather than actual contact in real life (Abdel-Salam et al., 2019). This result may imply that students are adept at navigating cyberspace, utilizing it as a valuable tool for communication, collaborative learning, and information sharing in online spaces (Hou, 2019; Kim, 2017). However, Marwaha (2015) also suggests a potential risk of excessive reliance on cyberspace for social interactions. Internet activities and technologies that are increasing rapidly have attracted young adults, leading to excessive internet use and a maladaptive Internet attitude known as "Internet addiction/ Cyberspace addiction".

Moreover, this could encompass their usage of digital technologies, online platforms, or participation in internet-based activities such those new environment for learning that is centered on electronic networks has allowed learners in universities to receive individualized support and also to have learning that are more suitable to them aimed at enhancing the

students' proficiency and safety in navigating the digital landscape (Arkorful & Abaidoo, 2015).

Correlation Analysis of Low Self-control and Cyber Victimization

Table 4. *Relationship between the Significance of Low Self-Control and Cyber Victimization*

Particulars	R-Value	Description	P-Value	Decision
Low Self-control – Cyber Victimization	0.479	Moderate Correlation	<0.001	Reject the null hypothesis

*. Correlation is significant at the 0.05 level (2-tailed).

Table 4 displays the correlation between low self-control and cyber victimization among students of Southern Philippines Agri-Business and Marine and Aquatic School of Technology (SPAMAST). An r-value represents the strength of the correlation between the two variables, while a p-value indicates whether or not that is statistically significant. The low self-control has a moderate correlation coefficient (r) of 0.479, which signifies a meaningful association. At the same time, the p-value of less than 0.001 indicates statistical significance between low self-control and cyber victimization, leading to the rejection of the null hypothesis.

This implies that specific facets of low self-control, such as impulsivity, difficulties in performing simple tasks, risk-seeking behavior, challenges in maintaining physical activities, self-centeredness, and temper management, collectively contribute to a heightened vulnerability to cyber-related incidents.

In support, this result aligns with the statement of Nodeland (2020) that individuals with low levels of self-control are more likely to be victims because they are more likely to engage in behaviors or be in situations that put them in danger. This is because the circumstances related to victimization are likely to be viewed as advantageous. After all, the individuals with low self-control may be targeted and affected. For instance, inadequate self-control was connected with online harassment, hacking, identity theft, and obtaining pornographic material. That time spent online for communication, social networking, and media consumption was positively associated with these same factors (Reyns et al., 2019).

In addition, individuals with lower self-control are at an increased risk of offline criminal victimization. While some studies have examined whether a similar pattern is observed online, additional research is warranted to determine whether the link between low self-control and cybercrime victimization operates indirectly through risky online behavior (Mikkola, 2020; Partin, 2022). According to the General Theory of Crime, if an individual has low self-control and has the opportunity to commit a crime, criminal behavior becomes more likely. Since the opportunities for crime are widespread, lack of self-control is to be seen as the leading cause of crime. Various measures

of dangerous online behavior entirely and indirectly mediate the association between low self-control and various measures of cybercrime victimization. Although victimization is generally undesirable, those who lack self-control are more likely to become victims of crime. Furthermore, a lack of self-control considerably impacts the cyber victim-offender as a whole when examining more specific forms of cyber behavior (Kerstens & Jansen, 2016; Weulen et al., 2019).

Correlation Analysis of Low Self-control and Cyberspace Addiction

Table 5. *Relationship between the Significance of Low Self-Control and Cyberspace Addiction*

PARTICULARS	r-VALUE	DESCRIPTION	p-VALUE	DECISION
Low Self-Control – Cyberspace Addiction	0.586	Moderate Correlation	<0.001	Reject null hypothesis No.2

*. Correlation is significant at the 0.05 level (2-tailed).

Table 5 displays the correlation between cyber victimization and cyberspace addiction among students of Southern Philippines Agri-business and Marine and Aquatic School of Technology (SPAMAST). An r-value represents the strength of the correlation between the two variables, while a p-value indicates whether or not the correlation is statistically significant.

The intricate dynamics between low self-control and cyberspace addiction have a moderate correlation coefficient (r) of 0.586 and a p-value of <0.001, underscoring the statistical significance of this relationship, leading to the rejection of the null hypothesis. This finding emphasizes that individuals with a moderate level of low self-control are more prone to developing problematic internet use. In support, this result aligns with the statement of Burt (2020) and Van Baak (2018) that there is a growing body of work that investigates how low self-control contributes to unsafe online activity and practices.

Moreover, Mesch and Dodel (2018) conducted a comprehensive study that demonstrated a robust correlation with a moderate result, emphasizing the compelling association between low self-control and susceptibility to cyberspace addiction. This result was then supported by the works of Fransher and Randa (2019), who supported these findings, providing additional validity to the observed correlation, which reinforces the robustness of the relationship, suggesting that individuals with lower self-control are more prone to developing cyberspace addiction. Additionally, Mikkola et al. (2020) delve into the psychological dimensions, emphasizing that individuals with low self-control often struggle with delayed gratification.

Correlation Analysis of Cyberspace Addiction and Cyber Victimization

Table 6. *Relationship between Cyberspace Addiction and Cyber Victimization*

PARTICULARS	r-VALUE	DESCRIPTION	p-VALUE	DECISION
Cyberspace Addiction – Cyber Victimization	0.548	Moderate Correlation	<0.001	Reject null hypothesis No.3

*. Correlation is significant at the 0.05 level (2-tailed).

Table 6 displays the correlation between cyberspace addiction and cyber victimization among students of Southern Philippines Agri-Business and Marine and Aquatic School of Technology (SPAMAST). An r-value represents the strength of the correlation between the two variables, while a p-value indicates whether or not the correlation is statistically significant. The low self-control has a moderate correlation coefficient (r) of 0.548, which signifies a meaningful association. At the same time, the p-value of less than 0.001 indicates statistical significance between cyberspace addiction and cyber victimization, leading to the rejection of the null hypothesis.

These findings shed light on the fact that being an adolescent victim of cyber victimization can increase the risk of engaging in Internet Addiction. The likelihood of engaging in cyberbullying or becoming a victim of online deviance, or both, appears to be highly influenced by the number of deviant cyber peers with whom one interacts (Loudeback & Antonaccio, 2021). In addition, indicate that students addicted to cyberspace may be more vulnerable to online victimization due to increased exposure and risky online behaviors (Kersten & Jansen, 2016).

Furthermore, this statistical link was highlighted in the correlational study conducted by Lin et al. (2020). The study shows a positive link between the occurrence of cyber victimization and the use of the internet, with a p-value <0.001. Thus, suggesting that there is a greater likelihood of cyber victimization among young people who engage in internet risk behaviors such as chatting with strangers and posting personal pictures. More prolonged online periods (more than two hours per day) are associated with a greater risk of experiencing cyberbullying (Gamez-Guadix et al., 2016).

The Mediating Effect of Cyberspace Addiction on the Relationship between Low Self-control and Cyber Victimization among SPAMAST Students

Table 11 shows the mediating analysis presented in exploring the role of cyberspace addiction as a mediating variable between low self-control and cyber victimization. It was found that the level of low self-control towards cyber victimization affects the level of cyberspace addiction, with a regression coefficient of 0.76 and a p-value of less than 0.05. This means that as the Low Self-control level of the students increases by one standard deviation, their cyberspace addiction level also increases by 0.76. This elucidates the intricate interplay between routine online activities, low self-control, and the risk of

cyber victimization (Bergmann et al., 2018; Louderback & Antonaccio, 2021; Mikkola et al., 2020).

The results indicate a significant indirect effect, emphasizing the mediating role of cyberspace addiction in the association of cyber victimization with a regression coefficient of 0.45 and a p-value of less than 0.05. This also implies that as the cyberspace addiction level increases by one standard deviation, their cyber victimization also increases by 0.45. These results conform to the study of Cohen and Felson's Routine Activities Theory (RAT) (1979), which highlights internet accessibility and visibility as factors differentiating cybercrime victims.

The overall indirect effect is 0.35, which is the product of the effects of low self-control on cyberspace addiction and cyberspace addiction on the cyber victimization, with a p-value of less than 0.05. On the other hand, the direct effect of low self-control on the cyber victimization of the students has a regression coefficient of 0.36 with a p-value of less than 0.05. This implies that low self-control had a significant effect on the cyber victimization of the students. It means that as the low self-control level increases by one standard deviation, their cyber victimization also increases by 0.36.

Table 7. *The Mediating Effect of Cyberspace Addiction on the Relationship between Low Self-control and Cyber Victimization.*

Effect	Estimates	Std. Error	Lower Ci	Upper Ci
Indirect Effect	0.3452*	0.0569	0.2376	0.4601
Low Self-control → Cyberspace Addiction	0.7629*	0.0504	0.6638	0.862
Cyberspace Addiction → Cyber Victimization	0.4525*	0.0571	0.3401	0.5649
Direct Effect				
Low Self-control → Cyber Victimization	0.3588*	0.0697	0.2217	0.496
Total Effect	**0.7040***	**0.0589**	**0.5881**	**0.8199**

*p<0.05; SE = Standard Error; CI = Confidence Interval

The result supported the study of Bergmann et al. (2018), which states that the risk of falling victim to cybercrime does not solely hinge on typical online behavior but extends to personal traits like a deficit in self-control. Consequently, individual characteristics, including levels of self-discipline, may contribute to one's susceptibility to online behavior. Moreover, the Total Effect has a regression coefficient of 0.70, which is the sum of the indirect and direct effects. The Indirect Effect is 0.35, which means that the mediation of cyberspace addiction to the relationship of low self-control and cyber victimization of the students is about 49%, which is 0.35 divided by 0.70 times 100. In comparison, the direct effect of low self-control on cyber victimization

is 51%, which is 0.36 divided by 0.70 times 100. Since the direct effect of Low Self-Control on Cyber victimization is nonzero and significant, we can say that there is a partial mediation exhibited in the model.

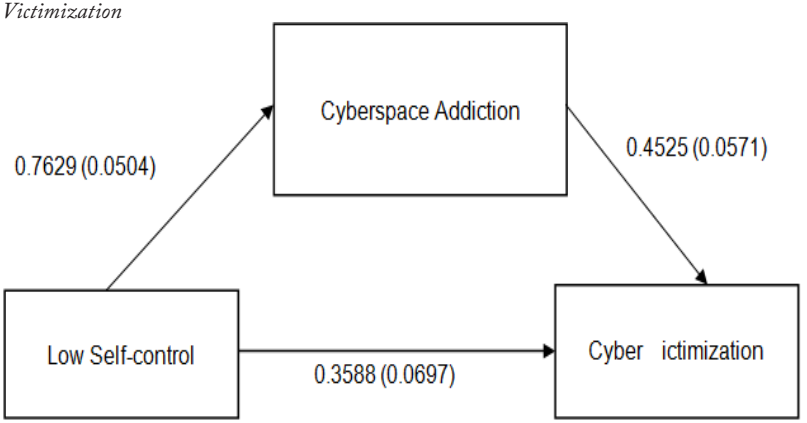
Finally, to check whether the mediation exists is significant, the Sobel Test was employed, and the result is presented in Table 12. Since the p-value is less than the 0.05 level of significance, we reject the null hypothesis and conclude that the mediation effect of Cyberspace Addiction on the Relationship between Low Self-control and Cyber Victimization is significant.

Table 8. *Summary of the Sobel Test of Mediation*

Indirect Effect	Estimate	Se	P-Value	Interpretation
Low Self-control ⟶ Cyberspace Addiction	0.7629*	0.0504	<0.001	Significant
Cyberspace Addiction ⟶ Cyber Victimization	0.4525*	0.0571	<0.001	Significant

Figure 1

The Mediating Effect of Cyberspace Addiction on the Relationship between Low Self-control and Cyber Victimization



Examining the components of the mediation process, the estimates for the paths Low Self-control ⟶ Cyberspace Addiction (0.7629) with p-value 0.001 and Cyberspace Addiction ⟶ Cyber Victimization (0.4525) with p-value 0.001 are both statistically significant, indicating that low self-control significantly influences cyberspace addiction, and, in turn, cyberspace addiction significantly influences cyber victimization. This aligns with existing literature and theoretical frameworks, such as Routine Activity Theory and the General Theory of Low Self-Control, which posit that individuals with low self-control are more likely to engage in risky behaviors, both online and offline.

Figure 1 is the diagram showing the mediating effect of Cyberspace Addiction on the relationship between Low Self-control and Cyber Victimization of SPAMAST Students. The mediation model, as depicted in

the figure, illustrates the pathway from Low Self-control (IV) to Cyberspace Addiction (MV) and subsequently to Cyber Victimization (DV). As Low Self-control increases, Cyberspace Addiction shows a significant positive effect (0.7629), indicating that Cyberspace Addiction mediates the relationship between Low Self-Control and Cyber Victimization. Moreover, the effect of Cyberspace Addiction on Cyber Victimization is also significant (0.4525), further emphasizing its role as a mediator.

The result aligned with Cohen and Felson's Routine Activities Theory (RAT) (1979), which holds that crime—and thus victimization—requires the convergence of motivated offenders, eligible targets, and a lack of adequate supervision in both time and location. Researchers have discovered support for RAT in offline forms of crime and victimization (Culatta et al., 2020; Näsi et al., 2015; Partin et al., 2022; Räsänen et al., 2016). The characteristics of Internet target accessibility and visibility distinguish cybercrime victims from non-victims.

Furthermore, Gottfredson and Hirschi's (1990) General Theory of Low Self-Control was developed to explain delinquent and criminal behavior and behaviors similar to crime. According to this notion, those who lack self-control are more likely to commit crimes and other related offenses. In this regard, research has discovered a correlation between a lack of self-control and being a victim of cybercrime (Louderback & Antonaccio, 2021). It appears that both routine activity theory and the general theory of low self-control help elucidate the factors that lead to victims of cybercrime.

CONCLUSIONS

The study focuses on investigating the mediating effect of cyberspace addiction in the relationship between low self-control and cyber victimization among students of Southern Philippines Agribusiness and Marine and Aquatic School of Technology (SPAMAST). The objectives are structured to comprehensively assess the levels of low self-control, cyber victimization, and cyberspace addiction among the student population while also exploring the significant relationships between these variables and the mediating role of cyberspace addiction.

A descriptive-correlational research design was employed in the study. There were three hundred fifty-nine (359) students from Southern Philippines Agri-Business and Marine and Aquatic School of Technology (SPAMAST) who were included in the study. The mean, Spearman's rank-order correlation analysis, mediation analysis, and Sobel z-test were the statistical tools utilized throughout the study. In addition, the results on the level of low self-control with physical activities had the highest responses (3.47), while self-centeredness had the lowest (2.84), with an overall mean of 3.08. In terms of cyber victimization, perceived distress received the most responses (3.31) and misuse of personal information got the least responses (2.46), with an overall

mean of 2.78. On the other hand, the level of cyberspace addiction with online gaming addiction had the highest responses, while social media addiction had the lowest (3.14), with an overall mean score of 2.86.

The mediation analysis and Sobel Test showed that cyberspace addiction significantly mediates the relationship between low self-control and cyber victimization (0.7629). Additionally, cyberspace addiction's effect on cyber victimization is significant (0.4525). These findings highlight the need for targeted interventions addressing individual traits and online behaviors to enhance online well-being among SPAMAST students.

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CONFLICT OF INTEREST

Authors declare no conflict of interest.

DECLARATION OF REGENERATIVE AI

AI was used as a tool for proofreading to enhance grammar and check for misspelled words only.

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