

Efficacy of Self-Control Training in Reducing Compulsive Texting Behaviour Among Students in Tertiary Institutions in Lagos State

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Abstract: The desire for social acceptance and connection among adolescents and young adults has made some of them stay longer checking and sending text messages, which could eventually lead to excessive texting. This study investigated efficacy of self-control training in reducing compulsive texting behaviour among students in tertiary institutions in Lagos state. The study adopted pretest posttest quasi-experimental research design with two research questions and two hypotheses. The population comprised students in all tertiary institutions in Lagos State. The sample consisted of 85 students identified as compulsive texters, selected from two tertiary institutions in Lagos state through multi-stage sampling procedure. A 30-item research instrument titled ‘*Text Messaging Addiction Scale*’ (TMAS), with a reliability coefficient of 0.83 was used for selecting sample, and for obtaining their pretest and posttest scores. Participants were grouped into two. The first group were exposed to an 8-week self-control training, while the second group were the control group. Data obtained were analyzed using percentages and ANCOVA. The first hypothesis was rejected, while the second was not rejected. Findings revealed that a significant difference existed in the post test mean scores of compulsive texters exposed to self-control training as compared to those who were not; while gender do not have any influence. The study recommends that tertiary institutions should engage professional counsellors, adopt the use of self-control training and discourage excessive texting behaviour among students in tertiary institutions.

Keywords: Compulsive Texting Behaviour, Counsellor, Self-Control Training, Students in Tertiary Institutions.

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I. INTRODUCTION

Students in tertiary institutions are usually adolescents and young adults, characterized by developmental challenges such as autonomy, identity crisis, high inclination to peer approval, heightened social needs, emotional reactivity, poor self-regulation, and constant digital access (Twenge, 2023). The rapid growth of digital communication technologies has transformed how young people interact, learn, and socialize. Among these technologies, texting has become a dominant mode of communication, particularly among adolescents and young adults in tertiary institutions (Afolayan & Adeyemi,

2023). The emergence of social media has made communication better and faster, all over the world and the most active users of this means of communication are young adults. The desire for social acceptance and connection among young people has made some of them to stay longer checking and sending text messages (Blum et al, 2022). While texting enables convenience and connectivity, its excessive and uncontrolled use has resulted in a behavioural concern known as compulsive texting (Lopez-Fernandez et al., 2022).

Compulsive texting refers to excessive, uncontrollable texting that interferes with normal functioning, academic performance, and interpersonal relationships. Compulsive texting is characterized by an irresistible urge to text, accompanied by anxiety or restlessness when unable to do so, and often interferes with academic, social, and emotional functioning (Elhai et al., 2020). Studies by Lopez-Fernandez et al. (2022) and Twenge (2023) have shown that students who engage in compulsive texting often experience anxiety, reduced concentration, and lower academic achievement. Compulsive texting involves persistent phone checking, prioritizing texting over essential tasks, and reacting negatively to interruptions. Young adults often engage in marathon texting sessions, displaying heightened anxiety when unable to text. This behaviour has been linked to social media addiction, as it fosters compulsive engagement without external interference. Many adolescents find it difficult to function without texting, as it has become ingrained in their daily routines (Ivanova, 2023).

According to Garcia (2015), an individual is classified as “compulsive texters”, when he/she sends more than 100 texts per day. It has been discovered that about 12 % of girls and 3 % of boys were globally meet this criterion. Global prevalence of compulsive texting behaviour showed that the prevalence of compulsive texting behaviour among American teens, is significantly higher, with 1 in 3 sending greater than 100 text messages per day. These recent trends indicate text messaging to be the primary method of communication between teens. Assignon (2018) also reported that 94% of students across the United States received texts while in a class, and 86% texted while in class. In Africa, the prevalence of compulsive texting behaviour among students revealed that about 67.0% of Africans (approximately 1.13 billion) are involved in compulsive text messaging behaviour (Balogun & Olatunde, 2020).

In Nigeria, the rate keeps skyrocketing, and has increased dramatically among adolescents over the past 10 years with a high frequency of texting and problematic texting behaviour (Odinka et al., 2023). Ikuburuju-Orola & Olusakin (2018) reported a compulsive texting prevalence of 26.9% among senior secondary school students in Lagos state. A recent study by Evbusogie et al. (2025), found a prevalence of excessive texting behaviour to be 73.3 % among undergraduates aged 18–24 years in three public tertiary institutions in Lagos State, with significant associations to depression, anxiety and stress. These findings underscore the prevalence of compulsive texting among Nigerian undergraduates, and it is linked with academic/psychosocial concerns.

Compulsive texting behaviour is characterized by factors such as social pressure, urgency to respond immediately to text messages, maintain social status, and keeping up with their peers. This can lead to a sense of urgency and anxiety around texting. Other factors include fear of missing out (FOMO), and the need to check messages and respond, even at the expense of other activities or responsibilities (Alutaybi, 2020). Young

people may use texting to cope with stress or anxiety, receive social validation and support from peers. Also, the constant availability and accessibility of smartphones and messaging apps may contribute to a compulsive texting habit. Ayandele et al., 2020; highlighted the connection between fear of missing out, the need for touch, anxiety, and depression to problematic smartphone use, suggesting that these factors contribute to emotional responses associated with texting. Texting during inappropriate times, such as during class, meals, or social events.

Symptoms of compulsive texting behaviour include constantly checking and responding to text messages, feeling anxious or agitated when unable to text, texting during inappropriate times, such as during class, meals, or social events, neglecting responsibilities, such as homework or chores, and so on. It also includes losing track of time, staying up late to text, constantly checking and responding to text messages, even when it interferes with other activities ((Ivanova, 2023)). In a study by Fook et al. (2021), found that constant checking and responding to text messages were indicative of problematic cell phone use among college students. Feeling anxious or agitated when unable to text or when not receiving responses. Also, a study by Kheirinejad et al. (2023), explored the association between social media use and sleep disturbance, indicating that staying up late to text can disrupt sleep patterns among young adults. Understanding these symptoms is crucial for early identification and intervention in reducing compulsive texting behaviour among students in tertiary institutions.

The consequences of compulsive texting include increased anxiety, social isolation, decreased physical activity, low self-esteem, and sleep loss (Zayed & Dhingra 2023). It can also affect students’ academic performance leading to spelling difficulties, reduced concentration, increased stress and anxiety (Ikuburuju-Orola & Olusakin, 2018). Many young adults will stay up late texting friends without their parents’ knowledge. Study by Lawson et al. (2019) indicated that there is a strong correlation between shortened and interrupted sleep time and poor academic performance. This therefore, underscores the urgent need for deployment of empirical counselling intervention such as self-control training in remediating consequences of compulsive texting behaviour among Nigerian undergraduates.

Self-control, defined as the ability to regulate impulses, emotions, and behaviour to achieve long-term goals, plays a crucial role in managing compulsive digital engagement. Empirical studies have established that individuals with higher self-control demonstrate lower tendencies toward problematic smartphone and social media use (Amaya, 2020). Self-control training (SCT) has been found to enhance individuals’ capacity to delay gratification, monitor impulsive urges, and adopt more adaptive behavioural patterns. Such training programmes, which include cognitive restructuring, mindfulness exercises, and behavioural rehearsal, have shown promising results in

reducing addictive tendencies and improving emotional regulation (Ozbek & Eroglu, 2021).

Despite the growing evidence globally, limited research in Nigeria has examined the efficacy of self-control interventions specifically targeted at reducing compulsive texting among tertiary students; a population particularly vulnerable due to their developmental stage and social context (Li et al., 2021). Self-control training (SCT), a structured counselling-based intervention, seeks to strengthen clients' capacity for impulse regulation through techniques such as cognitive restructuring, mindfulness, goal setting, and behavioural rehearsal. Research has shown that self-control training can effectively reduce maladaptive behaviour and enhance emotional regulation (Ozbek & Eroglu, 2021). Within the educational context, such training aligns with the counsellor's role in promoting personal development, behavioural adjustment, and academic success among students. By equipping students with the skills to consciously manage their digital habits, counsellors can foster a healthier balance between technology use and academic productivity.

The moderating effect of demographic factors such as gender and age as variables in influencing compulsive texting behaviour was also explored in this study. The influence of gender as a critical aspect of reducing this compulsive texting behaviour has been a mixed reaction. While some researches shows that effect of gender is obvious, others disagree. Ikuburuju-Arola & Olusakin (2018), stated that gender may influence the motivations behind texting behaviour, the content of messages, and the emotional responses associated with texting. Gender has shown to be a predictor of mobile messaging overuse in some studies. Wu and Chou (2023) in their study found no significant effect of gender on smart phone addiction among Taiwanese teenagers. In the same vein, Rodrigues et al. (2017) also found that there are no gender differences regarding the evaluation of emoticons of participants.

The theoretical framework applied in understanding compulsive texting behaviour among undergraduates in Nigerian tertiary institutions is Psychosocial Theory of Development by Erik Erikson (1902-1994). The theory emphasizes the influence of social dynamics as well as the extension of psychosocial development into adulthood. It emphasises the importance of social interactions in shaping identity, and his theory spans eight stages, from infancy to old age, each characterized by a unique conflict that must be resolved for healthy psychological development (Erikson, 1993). The theory posits that texting among young adults can become a compulsive behaviour when individuals use it to seek validation, avoid social isolation, or compensate for unfulfilled emotional needs.

In the context of compulsive texting, social media and texting platforms serve as arenas where adolescents negotiate their identities. The act of texting compulsively may represent

an attempt to maintain social validation, as teens constantly seek reassurance from their peers, conforming to social norms (Cherry, 2020). The need to engage in social comparison, seeking affirmation from peers, fits with Erikson's argument that adolescents are trying to establish a sense of self in relation to others (Nesi & Prinstein, 2015). Moreover, the fear of missing out (FOMO) can exacerbate compulsive texting behaviour, as young adults may feel they need to constantly stay updated and engaged in conversations to avoid being left out. This highlights the central role of social interaction during the identity vs. role confusion stage in today's digital age (Cherry, 2020).

➤ *Statement of the Problem*

The widespread use of mobile phones among students in tertiary institutions has made texting a central part of their academic and social lives. However, excessive and uncontrollable texting referred to as compulsive texting behaviour, has become increasingly problematic. Many students now experience difficulty concentrating during lectures, delayed academic tasks, and social anxiety when disconnected from their phones (Afolayan & Adeyemi, 2023). Compulsive texting not only undermines students' academic performance but also affects their psychological well-being, interpersonal relationships, and capacity for self-regulation (Twenge, 2023).

Despite the prevalence of this issue, interventions addressing compulsive texting among Nigerian students remain limited. Counselling strategies in most tertiary institutions tend to focus on study habits, career guidance, and substance abuse, with little emphasis on technology-related behavioural concerns. Meanwhile, research in other contexts suggests that self-control training can effectively enhance individuals' ability to regulate impulses and delay gratification, thereby reducing behavioural addictions such as compulsive phone use (Ozbek & Eroglu, 2021). The lack of empirical evidence on the application of self-control training in addressing compulsive texting in Nigerian tertiary institutions creates a research gap. Therefore, this study seeks to fill this gap by examining the efficacy of self-control training in reducing compulsive texting behaviour among students in tertiary institutions in Lagos State.

➤ *Purpose of the Study*

The central objective of this study is to investigate the efficacy of self-control training in reducing compulsive texting behaviour among students in tertiary institutions in Lagos State. In particular, the study was designed to:

- Ascertain the efficacy of self-control training in reducing compulsive texting behaviour among students in tertiary institutions in Lagos State.
- Investigate the influence of gender in reducing compulsive texting behaviour among students in tertiary institutions in Lagos State

➤ *Research Questions*

The study was guided by the following research questions:

- Will there be any effect of self-control training in reducing compulsive texting behaviour among students in tertiary institutions in Lagos State?
- Is there any difference in compulsive texting behaviour reduction among male and female students in tertiary institutions in Lagos State?

➤ *Research Hypotheses*

The following hypotheses are raised and tested in the study at 0.05 level of significance:

- There is no significant effect of self-control training on compulsive texting behaviour reduction among students in tertiary institutions in Lagos State.
- There is no significant difference in compulsive texting behaviour reduction among male and female students in tertiary institutions in Lagos State.

➤ *Significance of the Study*

This study shall be beneficial to several stakeholders in the education and in the society. Specifically, this study shall promote the well-being of students in tertiary institutions by revealing the determinants, symptoms and damaging consequences of compulsive texting behaviour. It shall also encourage and promote the development of self-regulation necessary for combating the menace of compulsive texting behaviour among students in this digitally saturated century. In addition, this study shall assist counsellors, in developing and application of self-control as proven interventions to help students manage compulsive texting behaviour. Also, insights and findings from this study shall assist tertiary institutions' administrators and policymakers in designing long lasting and friendly policies that would encourage healthy digital use, promote time management, and reduce technology-related distractions. The study will also contribute to the growing body of literature on digital addiction, and compulsive texting behaviour among students in various levels of study.

II. METHODOLOGY

This study adopted a two-group pretest-posttest quasi-experimental design. The population of this study consisted of all students in both public and privately owned tertiary institutions in Lagos state, Nigeria. A total of 85 students were selected through multi-stage sampling technique from two higher institutions in Lagos state. The first stage involved selection of one university and one college of education from the cluster of tertiary institutions through stratified random sampling.

The second stage of the sampling involved simple random sampling to select a faculty/school from each of the selected institutions. The third stage was by balloting to select a department from the selected faculty/school. The last stage of multi-stage sampling procedure involved administration of the

instrument titled "Text Messaging Addiction Scale" (TMAS) to 200 Level students from the selected departments to select sample for the study.

The Text Messaging Addiction Scale designed by Tasuku et al. (2005) was adapted for the study. The scale has two sections, Section A and B. Section A contains bio-data of the respondents such as age, gender, faculty, department and others, while section B comprised of 30 items that measured level of addictive behaviour of texters such as negative emotional response, an excessive amount of time spent on text messaging and withdrawal from face-to-face communication. All items were measured on a four-point likert scale which ranges from strongly disagree = (1), disagree = (2), agree = (3), and strongly agree = (4). Maximum point on TMAS was 120, and the minimum point obtainable was 40. Anyone whose scores on the TMAS was above 60 was adjudged to be addicted to compulsive texting behaviour and was selected for the training. A total of 102 students were initially selected, but due to absenteeism, and attrition only 85 students completed the training session, and they were referred to as sample. The instrument was validated by three psychometric experts, while its Cronbach Alpha reliability index obtained through validation study was 0.83.

➤ *The Training Session*

The sample for the study were grouped into two. Group one consisted of 50 students, and were exposed to the self-control training for a duration of 8-weeks training, 30 minutes per session. Group two, also known as the control group consisted of 35 students with no treatment/training. At the commencement of the training, TMAS was administered on the two groups to obtain their pretest scores, then actual training took 8 weeks, thereafter, TMAS was administered on the two groups to obtain their posttest scores.

First week involved general orientation, which involved introduction of researchers, explanation on the benefits of the training, agreement on the timing of the training and administration of TMAS on all participants in this group to obtain the pre-test scores. Second week involved introduction on the concept of compulsive texting behaviour and self-control training. Third week involved discussions on behavioural contract, which involved role play of behavioural contract situation that gave direction on what the participants were expected to do.

Fourth week training focused on self-monitoring, which described the process of observing one's behaviour including the antecedents and also set up behavioural standards for the participants.

Fifth week involved training on self-evaluation and goal setting, which included the process of assessing one's behaviour, thoughts and feelings to identify areas for improvement, and the need to develop plans to achieve their goals for managing triggers and staying on track. Sixth week

consisted of training on self-reinforcement through reward, punishment, alternate behaviour and stimulus control in reducing the compulsive texting behaviour. Seventh week involved training on process verification that involved demonstration and role play. The eight week involved training on relapse prevention and follow up, as well as administration of TMAS on all participants to obtain their posttest scores. The control group was on the waiting list, and were not given the treatment.

Data obtained from the instrument was analysed using percentages, and ANCOVA to test all stated hypotheses at 0.05 level of significance.

III. RESULT

➤ *Research Question 1*

Will there be any effect of self-control training in reducing compulsive texting behaviour among students in tertiary institutions in Lagos State?

Table 1: Effect of Self-Control Training on Compulsive Texting Behaviour Reduction Among Students in Tertiary Institutions in Lagos State

	Treatment	N	Posttest Mean	Std. Dev	Pretest Mean	Std. Dev	Mean Diff
	SCT	50	50.62	8.337	91.98	10.257	-41.36
	Control	35	77.71	10.634	79.00	10.281	-1.29
	Total	85	61.78	16.317	86.64	12.060	-24.86

Table 1 revealed that participants in the self-control training (SCT) group had the higher compulsive texting behaviour reduction level with mean difference of – 41.36, while participants in the control group had the lower reduction level with mean difference of -1.29. This finding showed that the SCT had positive effect in reducing compulsive texting behaviour among students in tertiary institutions.

➤ *Research Question 2*

Is there any difference in compulsive texting behaviour reduction among male and female students in tertiary institutions in Lagos State?

Table 2: Effect of Gender on Compulsive Texting Behaviour Reduction Among Students in Tertiary Institutions in Lagos State

	Gender	N	Posttest Mean	Std. Dev	Pretest Mean	Std. Dev	Mean Diff
	Male	28	65.29	19.434	86.50	11.768	-21.21
	Female	57	60.05	14.425	86.70	12.304	-26.65
	Total	85	61.78	16.317	86.64	12.060	-24.86

From Table 2, the mean difference of female students on the basis of compulsive texting behaviour reduction which was – 26.65 is higher, than the mean difference of their male counterpart which was –21.21. This result revealed that their mean differences though very close, the compulsive texting behaviour reduction was more evident among female than their male counterparts.

➤ *Hypothesis 1*

There is no significant effect of self-control training on compulsive texting behaviour reduction among students in tertiary institutions in Lagos State.

Table 3: ANCOVA of Effect of Self-Control Training on Compulsive Texting Behaviour Reduction Among Students in Tertiary Institutions in Lagos State

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	19162.506 ^a	2	9581.253	245.347	.000	.857
Intercept	42.638	1	42.638	1.092	.299	.013
Pretest	4048.675	1	4048.675	103.674	.000	.558
Treatment	19026.527	1	19026.527	487.213	.000	.856
Error	3202.247	82	39.052			
Total	346753.000	85				
Corrected Total	22364.753	84				

a. R Squared = .857 (Adjusted R Squared = .853)

Table 3 showed that the effect of treatments $F(1, 82) = 487.21$, $p = 0.000$, $\eta^2 = 0.856$, was significant at 0.05. This showed that the p-value of the F-ratio was less than 0.05, therefore the null hypothesis was rejected. That is, a significant difference existed in the post test mean scores of compulsive texters exposed to self-control training as compared to those who were not. Also, the value of partial eta squared (η_p^2) which was 0.856 indicated that self-control training accounted for 85.6 % of the variance on compulsive texting behaviour reduction. This suggests that self-control training was effective in reducing compulsive texting behaviour of the participants.

➤ Hypothesis 2

There is no significant difference in compulsive texting behaviour reduction among male and female students in tertiary institutions in Lagos State.

Table 4: ANCOVA of Effect of Gender on Compulsive Texting Behaviour Reduction Among Students in Tertiary Institutions in Lagos State

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	646.032 ^a	2	323.016	1.220	.301	.029
Intercept	8188.741	1	8188.741	30.917	.000	.274
Pretest	131.836	1	131.836	.498	.482	.006
Gender	510.054	1	510.054	1.926	.169	.023
Error	21718.721	82	264.862			
Total	346753.000	85				
Corrected Total	22364.753	84				

a. R Squared = .029 (Adjusted R Squared = .005)

From Table 4, it was revealed that the effect of gender $F(1, 82) = 1.926$, $p = 0.169$, $\eta^2 = 0.023$, was not significant at 0.05. This showed that the p-value of the F-ratio was greater than 0.05, therefore the null hypothesis was not rejected. That is, there was no significant difference in the post test mean scores between male and female compulsive texters. Also, the value of partial eta squared (η_p^2) which was 0.023 indicated that gender accounted for a mere 2.3 % of the variance on compulsive texting behaviour reduction. Hence, there was no significant effect of gender in reducing compulsive texting behaviour of the participants.

IV. DISCUSSION OF FINDINGS

➤ Hypothesis One

Hypothesis one states that there is no significant effect of self-control training on compulsive texting behaviour reduction among students in tertiary institutions in Lagos State. The findings revealed that a significant difference existed in the post test mean scores of compulsive texters exposed to self-control training as compared to those who were not. Thus, the null hypothesis was rejected. This means that self-control training was effective in reducing compulsive texting behaviour of the participants. This finding agreed with the study by Amaya (2020), who opine that self-control training emerges as a targeted intervention designed to address and mitigate compulsive behaviour by empowering individuals to exert greater control over their impulses and establish healthier patterns of behaviour. In addition, the finding agreed with the study by Li et al. (2021), who discovered that, in the context of compulsive texting behaviour reduction, self-control training aims to equip individuals with the tools and strategies necessary to modulate their engagement with digital communication,

fostering a more balanced and mindful approach. Reasons attributable to similarities of these findings self-control training as a proven counselling intervention provides a tailored approach to breaking the cycle of compulsive texting, through the cultivation of self-awareness, the establishment of realistic goals, regain control over texting habits, and develop a healthier relationship with digital communication.

➤ Hypothesis Two

Hypothesis two states that there is no significant difference in compulsive texting behaviour reduction among male and female students in tertiary institutions in Lagos State. The findings revealed that a significant difference does not exist in the post test mean scores between male and female compulsive texters. Thus, the null hypothesis was not rejected. This means that compulsive texting behaviour reduction of the participants was not aged based. This finding on the influence of gender as a critical aspect of reducing compulsive texting behaviour has been a mixed reaction. While some researches showed that effect of gender is obvious, others disagree.

This finding agreed with Wu and Chou (2023), who in their study found no significant effect of gender on smart phone addiction among Taiwanese teenagers. In the same vein, Rodrigues et al. (2017) also found that there are no gender differences regarding the evaluation of emoticons of participants. Contrariwise, this finding on the import of gender is at variance with Ikuburuju-Arola and Olusakin (2018) who found out that the influence of gender could be a critical aspect of reducing this compulsive texting behaviour. They opine that gender may influence the motivations behind texting behaviour, the content of messages, and the emotional responses associated with texting. However, the overriding effect of the counselling

technique such as self-control training over gender signifies that the techniques effectively reduced compulsive texting behaviour in both male and female texters, and thus the reduction is not gender specific.

V. RECOMMENDATIONS

This study investigated efficacy of self-control training in reducing compulsive texting behaviour among students in tertiary institutions in Lagos state. The following recommendations were made:

- Authorities of higher institutions of learning should employ professional counsellors to man various counselling units or centres in their institutions.
- There is also the need for provision of funds and necessary tools such as psychological test, computers, and others items for counsellors to discharge their duties efficiently.
- The counselling treatment applied in this study which is self-control training, should be part of the counselling activities in all tertiary institution in Lagos Nigeria.
- Counsellors, lecturers and parents are expected to promote and encourage personal self-control on the use of phones at home, in the school and in the society
- Education policymakers should use insights from this study to design policies that encourage healthy digital use, promote time management, and reduce technology-related distractions.

VI. CONCLUSION

The increasing dangers of compulsive texting behaviour and its consequences on the overall well-being among students in tertiary institutions makes this study germane to counselling psychologists. The study has also shown that SCT is very effective in reducing compulsive texting behaviour. The study equally revealed that the moderating variable of gender did not in any way influence compulsive texting behaviour reduction of the participants.

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