Social Media usage (SMU) and Delinquent Behaviour (DB) among Secondary School Students in Delta State.

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Abstract: This study examined the relationship between social media usage and delinquent behaviour among secondary school students in Delta state. In the course of the study, one research question and one hypothesis were tested. The correlational research design was adopted. The population was made up of 72,854 senior secondary school students in Delta State. A sample size of 1,045 students was selected through a multistage sampling procedure. A questionnaire made up of standardised items was used to gather data. The questionnaire was validated by experts' judgement and factor analysis. The Cronbach alpha reliability coefficient was used to estimate the reliability index of the instrument. The Pearson's Product Moment Correlation Coefficient of Determination was used to answer the research question, while regression statistics were used to test the hypotheses at the 0.05 level of significance. The findings of the study revealed that a significant positive relationship exists between social media usage and delinquent behaviour among secondary school students in Delta State. The researcher recommended that parents and other relevant stakeholders play their role in monitoring and reducing the amount of time teenagers spend on social media.

I. Introduction

Social media has become an integral part of modern life revolutionizing the way people communicate, share information and interact with one another. It has quickly become one of the most used means of communication and social networking among the youths of today. In delta state for example, social media usage has witnessed a significant surge in popularity among the secondary school students this is mainly due to factors such as increased number smartphones which is as a result of affordability of said phones, internet accessibility, the need for connection and self-expression, peer influence and engaging content across the social media platforms.

Social media applications, defined as web-based applications that enable individual users to generate and share content with others, are especially popular with young people. They possess a wide range of purposes and usage options, ranging from text-focused apps (e.g., Twitter) and image-centric apps focused on sharing videos and photos (e.g., Instagram, Snapchat) to apps that encompass a wide variety of usage capabilities (e.g., Facebook; Associated Press-NORC, 2017). Virtually all adolescents globally (93%–97%) use social media apps (Pew Research Center, 2018). Moreover, many adolescents (24%) report that they are online "almost constantly" (Lenhart, et al., 2015). "Common Sense Media" in 2019 reported that the contemporary youth spends approximately 7 to 9 hours a day engaging with technology, primarily via social media apps. Adolescents' use of multiple social media apps is a common trend in today's digital age. Many teenagers are active on various social media platforms simultaneously, reflecting the diverse ways in which they communicate, share content, and engage with their peers (Barry et al., 2017). Among adolescents, the most popular apps, in order, are Instagram, Snapchat, Facebook, and Twitter (Associated Press-NORC, 2017).

Social Media may either have a positive or negative effect on the society and individuals. However, sometimes its cost outweighs its benefits, especially for secondary school students. Electronic gadgets have provided students with a floodgate of opportunities to be inspired by social media content and express themselves in ways that may constitute crimes on social networking sites or in real life. Juvenile delinquency has been made worse by several factors, such as the anonymity provided by social media and the view of fakeness it portrays.

It is a general belief that many youngsters are initiated into smoking, drinking, bullying and other anti-social or delinquent behaviours through the social media. According to Kariku (2016), teens are exposed to everything through the social media and no matter how hard parents try to protect their adolescent children from negative information, it seems to be impossible. Tayo-Olajubutu (2017) trying to link media violence to real-life violence behaviours, stated that there is no doubt, children like adults, are equally exposed to a tremendous amount of violence through the media.

Social media applications ("apps"), defined as web-based applications that allow users to generate and share content with others (Kaplan & Haenlein, 2010), are especially popular with young people. Social media apps possess a wide range of purposes and usage options, ranging from text-focused apps (e.g., Twitter) and image-centric apps focused on sharing videos and photos (e.g., Instagram, Snapchat) to apps that encompass a wide variety of usage capabilities (e.g., Facebook; Associated Press-NORC, 2017). In the United States, virtually all adolescents (93%–97%) use social media apps (Barry et al., 2017; Madden et al., 2013; Pew Research Centre, 2018). Moreover, many adolescents (24%) report that they are online "almost constantly" (Lenhart, et al., 2015). Notably, much of the research conducted on social media use has focused on high school and college-age youth; younger adolescents have been overlooked. However, the specific social media apps used, time spent using social media, and the relationship between social media use and psychological adjustment may differ by developmental stage.

Social media has drastically changed how information is communicated and consumed today, and it is now an important component of businesses and government organisations (Kaplan and Haenlein, 2010; Sulaiman, *et al.,* 2023). In contrast to conventional centrally located news sources, social media has enabled users to share information and viewpoints (Fadhel, et al., 2022), potentially achieving a more open dissemination of thoughts and enabling users to connect with an important segment of the general public (Kwak et al., 2010).

Data collected from social media is a valuable input to analyse the flow of information, opinions and sentiments, and by detecting who shares what and how frequently. According to Xu et al. (2014), social media posts and tweets are used to identify and analyse activism and social movements. Social media data is utilised to provide valuable information to emergency responders during crisis situations. Lampos and Cristianini (2012) explained that social media content is employed to track and study the spread of diseases and public health trends. Social media data is used to determine the roles and behaviours of different users within a network. Cresci et al., (2020) points out that Social media data is analysed to understand and characterise the various behaviour of individual users. Social media data is used to measure the extent of media coverage on specific topics. Quantifying media coverage (Prieto-Curiel et al., 2019). Social media content is used to offer recommendations and information to tourists (Barchiesi et al., 2015; Muntean et al., 2015). Social media data is utilised to monitor and analyse road traffic conditions. Social media analysis is employed to assess exposure to diverse ideological content. Analysing Exposure to Cross-Ideological Content (Barchiesi et al., (2015; Cresci, 2014; Muntean et al., 2015; Himelboim et al., 2013) Himelboim et al. (2013) point out that social media is used as a source of political information. Highlighting the role of social media in political participation, Ausserhofer and Maireder (2013) state that social media data is analysed to understand political participation patterns. in her contribution to the diverse role of social media Coletto (2017) emphasised that social media data is used to gain insights into social phenomena like migration flows. Furthermore, Dodds et al. (2011) assert that social media data is used to create a real-time indicator of happiness or sentiment.

According to relational developmental systems models of human development (Lerner et al., 2015), human behaviour results from the interaction between the individual and the individual's contexts. Given that social media has become a central context during adolescence, it is critical to understand how social media use may influence behaviour during this critical period of development. A growing number of studies have focused on the benefits and risks of youth social media use. Social media use may benefit youth by enhancing communication, providing access to novel information, and contributing to identity development (Shapiro & Margolin, 2014). However, social media use also has been associated with increased depressive symptoms (Vannucci & Ohannessian, 2019), anxiety symptoms (Vannucci et al., 2017; Vannucci & Ohannessian, 2019), and alcohol and drug use (Ohannessian et al., 2017).

In addition, social media use may provide a means for adolescent externalizing behaviours, including poor behavioural conduct and problem behaviours that are directed outward toward the external environment such as aggression, bullying, and disobeying rules (Carpenter, 2012; Elsaesser et al., 2017; Liu, 2004; Patton et al., 2014). For example, cyber-bullying is widespread with close to 75% of school-age youth experiencing cyber-bullying at least once a year (Elsaesser*et al.,* 2017).

The anonymous nature of social media may be attractive for youth lacking in social skills and social competence, making it easier for such youth to act aggressive toward others. Moreover, some research and theory (e.g., social compensation theory; Campbell et al., 2006) has suggested that youth with pre-existing conduct problems tend to have poor social skills are attracted to social media and use it more frequently because it allows for anonymity. Mesquita, 2015) asserted that social media exacerbates negative outcomes for individuals with existing behavioural problems.

Peer influence effects that occur via social media use also may exacerbate delinquent behaviours in adolescents. Social norms theory proposes that adolescents' perceptions of their friends' engagement in delinquent behaviours increase motives for these behaviours, as the need for social acceptance is of paramount importance during this developmental period (Cotter &Smokowski, 2016).It is a common observation that receiving "likes" on personal photos of delinquent behaviours on social

media has robust rewarding properties for adolescents, and exposure to photos of delinquent behaviours posted by peers has been shown to predict adolescents' own delinquent behaviours (Sherman et al., 2016). Image-based social media apps, including Instagram and Snapchat, may therefore be especially potent social media platforms for peer influence processes to operate during adolescence.

Of note is the fact that, most existing research examining the link between social media use and externalizing behaviours in youth has focused on overall social media use or specifically on Facebook. For example, in a study examining late adolescents and emerging adults, childhood conduct disorder symptoms and adolescent antisocial behaviours were significantly and positively associated with more daily social media use overall (Galica et al., 2017). In another study, narcissistic and delinquent behaviours were associated with self-promoting, grandiose, and exploitative styles of interacting on Facebook (Carpenter, 2012). Antisocial personality disorder symptoms also have been linked to more Facebook use in older adolescents and adults (Rosen et al., 2013). Few studies have examined associations between externalizing behaviours and social media apps other than Facebook. This limitation is significant, given that Facebook use has declined among youth, whereas the use of other social media apps, such as Instagram and Snapchat, has steadily increased (Associated Press-NORC, 2017; Duggan et al., 2015; Molina, 2016). It also should be noted that much of the limited research to date has focused on older adolescents and adults. The relationship between social media use and externalizing behaviours during early adolescence has been overlooked.

According to Chen et al. (2017), social media can be used to effectively assess emotional distress and suicide risk. According to Robinson et al. (2017), social media may play a significant role in the avoidance and management of depression in addition to suicidal conduct and thoughts. This is consistent with the position of Bryan et al. (2018) who subsequently found that certain sequences in the content of social media could predict the cause and timeline of death by suicide. The conclusions of Bryan et al. (2018) are in line with Tan et al. (2017) who reported that whereas web-based interventions can be effective in the prevention of online suicide, it is also imperative to increase user engagement with online information and discussion groups.

According to Gentile et al. (2004) there is a connection between violent media content and aggressive behaviours. These aggressive behaviours can take on a variety of forms, from mild forms like arguing to severe forms like fighting, according to Gentile et al. (2004). This implies that criminal behaviour could take the form of violent, aggressive activity. According to Krahé & Müller (2010), examples of minor forms of aggressiveness include pushing or insulting another person.

Violent media which can be found on the various social platforms has also been shown to influence a wide range of other aspects of aggression, such as aggressive thoughts (Gentile et al., 2017), desensitization to violence (Fanti et al., 2009), or everyday sadism (Greitemeyer & Sagioglou, 2017). Krahé and Möller, (2010) averred that individuals who are regularly exposed to violent media may become less emotionally affected by real-life violence or suffering, which can contribute to decreased empathy.

Social network analysis is concerned with examining relationships or ties (e.g., friendships, romantic relationships, communication exchanges) between individuals or groups (nodes) within a network. The goal is to extract valuable information and insights from these connections. Social network studies have provided substantial evidence that various phenomena can propagate through these network ties, sometimes reaching up to three degrees of separation. In other words, the influence or impact of one individual's actions or choices can extend to others within their social network. SNA has shown that voting behaviors can spread through social ties, suggesting that individuals are influenced by the voting choices of their friends and acquaintances. Christakis &Fowler (2008) demonstrated that smoking habits can be contagious within social networks, with individuals more likely to smoke if their social connections do. The pleasure of one's social contacts can have a positive impact on one's own well-being, as demonstrated by Bliss et al. (2012) in their study of how happiness can propagate within social networks. Personal observation has revealed that one's social network's members' actions and preferences can have an impact on things like body mass index and fast food intake.

The "General Aggression Model" (GAM) developed by Anderson and Bushmanin 2002 is the theoretical framework on which a substantial portion of the literature on violent media aggression is based. The GAM claims that exposure to violent content repeatedly strengthens hostile structures through learning processes, resulting in a more aggressive attitude overall. Additionally, it's important to note that experiencing or witnessing aggressiveness from friends can also make one feel aggressive.

As was already mentioned, exposure to violent media does not significantly influence violence. However, it has also been seen that low-intensity behaviours propagate across social networks (e.g., rudeness in workplaces, Foulk et al., 2016). The question of whether watching violent media might influence a person's social network has been the subject of several studies. For example, is it plausible that viewers of violent media not only become more aggressive but also cause their friends and relatives to become hostile even if they do not actually watch violent media?

But it's crucial to remember that, in the case of social networks, there are at least three mechanisms that can account for similarities between a person (hence referred to as the consumer) and others who are close to them (hereafter referred to as friends) (Christakis & Fowler, 2013). According to McPherson et al. (2001), homophily is the tendency for people to bond with those who are similar to them. This would imply that people who consume violent media and are consequently more likely to be hostile befriend other people who also consume violent media.

Any connection between the media consumption of the consumer and the aggressive behaviour of the friend could simply be homophily. Confounding is the name of the second procedure. It comes about as a result of common environmental conditions that simultaneously affect both friends and customers. For instance, delinquency in the neighbourhood of two friends could raise their level of hostility, and this increased delinquency in the community could constitute a fictitious variable in the relationship between media use and friend violence. The last topic, and the one that interests' social psychologists the most, is social influence. In other words, the customer is actively persuading their friend to become more like to them. In the current study, we concentrated on the homophily and social impact mechanisms.

II. Statement of the Problem

The increasing popularity of social media platforms among secondary school students has raised concerns about their potential influence on their behavior, particularly in terms of delinquency. Delinquent behavior refers to actions that deviate from social norms and are often considered illegal or morally wrong. While some previous research has been conducted on social media usage, it focuses more on the association between social media usage and students' performance (Chethiyar, et al., 2019) and the association between social media usage and SMEs' performance (Qalati et al., 2022), with limited research specifically on the association between social media usage and the delinquent behavior of secondary school students in Delta State. Thus, this study bridged the research gap by examining the relationship between social media usage and delinquent behavior among secondary school students in Delta State.

Research question

1. What is the relationship between social media usage and delinquent behaviour among secondary school students in Delta State?

Hypothesis

1. There is no significant relationship between social media usage and delinquent behaviour among secondary school students in Delta State

III. Research method

The study is a correlational study that deals with the relationship that exists among different variables. In this regard, the correlational research design was adopted from Satar, et al., (2023). This design enabled the researcher to ascertain the nature of the relationship that exists between social media usage and delinquent behaviour among secondary school students. The population of the study comprised 72,854 senior secondary school students who are in their second year (SS2) in Delta State. The participants were selected from the 452 secondary schools across the 25 local government areas in Delta State

The sampling techniques that were used to select the students were proportionate stratified, simple random and convenience sampling techniques. These sampling techniques were used at different stages during the sampling procedure. In the first stage the researcher made use of the proportionate sampling technique to ensure that all the Local Government Areas were equally represented. To do this, the researcher determined the percentage of 1,045 sample size in relation to the entire population, which stood at 1.434%. Therefore, 1.434% of the population in each Local Government Area was selected. In selecting the number of schools, simple random sampling was used to randomly select one school from each of the local government areas in the state. Then the students were selected from each of the selected schools by way of convenience sampling technique. This means that only students who were available and willing to participate were selected.

The instrument that was used in the study was a questionnaire. The questionnaire was made up of two sections; Section A was a "Social Media Usage Rating Scale" (SMUS)and section B was a "Delinquent Behaviour Rating Scale" (DBRS). The Social Media Usage Rating Scale" (SMURS)was used to determine the extent to which the students use social media. The scale contains a total of 20 items, which was later reduced to 14 after validation. The items were adapted from Bawa and Suleiman (2017). The original test had a Cronbach's Alpha Coefficient of 0.87. The items were structured on a 4-point scale, ranging from 1 for strongly disagree to 4 for strongly agree.The Delinquent Behaviour Rating Scale" (DBRS)was used to determine the extent to which the students will exhibit delinquent behaviour. The scale contains 25 adopted from Kumuyi, Akinnawo and Akintola

(2020). The original test had a Cronbach's Alpha Coefficient of 0.75, a Spearman-Brown coefficient of 0.68 and Guttman Split-Half coefficient of 0.68. The items were however, reduced to 23 after validation (3 items for vandalism, 7 items for Theft, 5 items for Physical Aggression, 4 items for Truancy, 2 items measuring destructiveness, and 2 items for status offense). The items were structured on a 4-point scale, ranging from 1 for strongly disagree to 4 for strongly agree.

The face, content and construct validities of the instrument was estimated. The experts in Guidance and Counselling Department estimated the face validities to ensure that items in the instrument are appropriate and in line with objectives of the study. They assessed the choice of language, sentence structure and use of grammar in the instrument. Their judgement was used to ascertain the face validity of the instrument.

After face validity, the researcher pilot tested the questionnaire by administering it on 100 respondents in secondary schools other than the ones earmarked to be used in the final study. The responses were collated and entered into a computer system with the Statistical Package for Social Science (SPSS) version 26. The data were analysed using principal component analysis method of confirmatory factor analysis. The total cumulative variance was used to estimate the content validity of the instrument. It yielded the following values; 61.93% for Social Media Usage and 77.29% for Delinquent Behaviour. The rotated component matrix will be used to estimate its construct validity. It yielded the following range of values; 0.53-0.84 for Social Media Usage and 0.57-0.91 for Delinquent Behaviour The data obtained from the pilot study were subjected to a reliability test using the Cronbach's alpha reliability coefficient. The coefficient obtained was used to estimate the internal consistency of items in the questionnaire. Scales with index within the range of 0.70 and above were judged to be acceptable in reliability while those with index less than 0.70 were deemed to be unacceptable. It yielded the following coefficient;0.91 for Social Media Usage and 0.94 for Delinquent Behaviour.

The questionnaire was personally administered to the respondents in their various schools. She recruited the service of five research assistants to help her administer the questionnaire. The research assistants were trained on the objectives of the study and how to go about administering the questionnaire to the respondents. Prior to the administration of the questionnaire, the researcher sought and obtained permission from the principals of the various schools, the students were not be coerced to respond to the questionnaire instead they were told that the process was completely voluntary and that they were free at any time to discontinue the process whenever they felt uncomfortable. The completed questionnaire was retrieved immediately from the students.

IV. Data Analysis

The data obtained from the field were collated, scored, coded and entered with the aid of the Statistical Package for Social Sciences (SPSS) version 26. The Pearson's Product Moment Correlation Coefficient of Determination was used to answer the research question. On the other hand, the simple regression was used to test the hypotheses. The hypothesis was tested at 0.05 level of significance.

V. Results

Research Question 1: What is the relationship between social media usage and delinquent behaviour among secondary school students in Delta State?

Table 1:Pearson's Correlation analysis of social media usage and delinquent behaviour

Variables	N	Mean	SD	r	r^2	r^2%	Remark
Social Media Usage	1,043	41.50	9.27	0.198	0.039	3.9	Positive Relationship
Delinquent Behaviour		52.08	15.00				

In Table 1, the researcher presented the result of a Pearson's correlation analysis, which was used to examine the relationship that exists between social media usage and delinquent behaviour among secondary school students in Delta State. The result revealed that $r = 0.198$, $r^2 = 0.039$, and r^2% = 3.9. The result showed a positive relationship between social media usage and delinquent behaviour among secondary school students in Delta State. It implied that social media usage contributed 3.9% to the variability in delinquent behaviour among secondary school students in Delta State.

Hypothesis 1: There is no significant relationship between social media usage and delinquent behaviour among secondary school students in Delta State

Table 2: Regression analysis of social media usage and delinquent behaviour.

Model Summary					
R	*R²*	*Adj. R²*		Std Error	
0.198	0.039	0.038		14.70	
ANOVA					
	SS	*Df*	*MS*	*F*	Sig.
Repression	9223.522	1	9223.522	42.660	.000[b]
Residual	225075.188	1041	216.211		
Total	234298.709	1042			
Coefficient					
	Unstandardized Coefficients		Standardized Coefficient	*t*	Sig.
	B	**Std. Error**	**B**		
(Constant)	38.759	2.089		18.550	.000
Social Media Usage	.321	.049	.198	6.531	.000

In Table 2, the researcher presented the result of a regression statistics which was performed to investigate the relationship between a social media usage and delinquent behaviour among secondary school students in Delta State. The calculated F-value is 42.660, and the p-value is 0.000, which is less than the alpha level of 0.05. Consequently, the null hypothesis is rejected. This suggests that a relationship exists between social media usage and delinquent behaviour among secondary school students in Delta State.

The R^2 value of 0.039 indicates that social media usage explain for 3.9% of the variation in delinquent behaviour among secondary school students in Delta State. The unstandardized regression coefficient (B) for predicting delinquent behaviour from social media usage, is 0.321; while the standardized regression coefficient is 0.198, $t = 6.531$, $p < 0.05$ level of significance.

VI. Discussion

The finding of the study revealed positive relationship between social media usage and delinquent behaviour among secondary school students in Delta State. The finding showed that social media usage contributed 3.9% to the variability in delinquent behaviour among secondary school students in Delta State. A corresponding hypothesis showed that a significant relationship exists between social media usage and delinquent behaviour among secondary school students in Delta State. This finding implies that social media usage can influence students into indulging in delinquent behaviour. The possible reason for this finding is that social media has become a central context during adolescence, it is critical to understand how social media use may influence behaviour during this critical period of development. It has the ability to provide a means for adolescent externalizing behaviours, including poor behavioural conduct and problem behaviours that are directed outward toward the external environment such as aggression, bullying, and disobeying rules. The anonymous nature of social media may be attractive for youth lacking in social skills and social competence, making it easier for such youth to act aggressive toward others.

The above finding supports the findings of Vannucci and Ohannessian (2019); Vannucci et al. (2017); Vannucci and Ohannessian (2019); and Ohannessian et al. (2017), which linked social media use with increased depressive symptoms, anxiety symptoms, alcohol and drug use. The finding is also in line with Sherman et al. (2016), who found that receiving "likes" on personal photos of delinquent behaviours on social media have robust rewarding properties for adolescents, and exposure to photos of delinquent behaviours posted by peers predict adolescents' own delinquent behaviours. The finding further agrees with Carpenter (2012), whose finding suggests that narcissistic and delinquent behaviours were associated with self-promoting, grandiose, and exploitative styles of interacting on Facebook.

VII. Conclusion

On the basis of the finding obtained in the study, researchers conclude that secondary school students' delinquent behavior in Delta State are being influenced by social media usage. exposure to inappropriate content, such as violence, drug use, or criminal activities, on social media platforms can desensitize and normalize deviant behaviors among impressionable students. This exposure may inadvertently contribute to a distorted sense of right and wrong, leading to increased involvement in delinquent activities.

VIII. Recommendations

1. Parents should limit screen time and reduce students' involvement in social media in order to avoid their indulgence in delinquent behaviour

2. Relevant stake holders such as the telecommunication service providers should do their best to filter the content of the social media available to the student at secondary school level in the country

3. Parents should monitor the activities of the student at secondary school level on the social media platforms.

4. Training should be provided for the secondary school students on better usage of the social media.

5. Schools should put a ban on the use of smart phones on school premises or during school hours

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