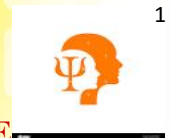




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ADOLESCENTS PERCEIVED PARENTING AND SMARTPHONE ADDICTION AS PREDICTORS OF CYBERBULLYING

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Abstract

The study investigated Adolescents perceived parenting and smart phone addiction as predictors of cyber bullying. A recent study found that 26.5% of adolescents had perpetrated cyber bullying (Kim, 2023). Positive parenting plays an important role in the development of children's psychological and behavioural control, parent-child communication, and encourages moderation in the use of smart phones by adolescents (Kim, 2023; Lee, & Mun, 2022). A total of 306 male participants comprising 155 females and 151 males drawn from the population frame of Adolescent Students of Day Secondary Independence Layout (N = 108, 35%); Army Day Secondary School Awkunanaw (N = 102, 33%) and Uwani Secondary School (N = 98, 31%). The age ranges of the participants were between 13years and 17years while M = 15.31 and SD = .99. Mixed sampling technique (systematic, purposive, simple random) was used to select the participants. A 24-item Korean Parents as Social Context Questionnaire (PSCQ); Smartphone Addiction Scale-Short Version (SAS-SV) and The Cyber bullying in Social Media Scale (CSMS) English Version were used as instruments in the study. Correlation design was adopted while Hierarchical Multiple Regression and Moderated Multiple Regression were used to analyze the data. Results revealed that perceived parenting (Warmth, Structure, Autonomy Support, Rejection, Chaos, Coercion) were entered. Warmth ($\beta = -.24$, $t = -6.37$, at $P < .01$); Structure ($\beta = -.37$, $t = -9.84$, at $P < .01$) Rejection ($\beta = .38$, $t = 4.17$, at $P < .01$); Chaos ($\beta = .20$, $t = 2.42$, at $P < .05$) and Coercion ($\beta = .20$, $t = 4.35$, at $P < .01$) dimensions of perceived parenting predicted cyber bullying while Autonomy Support ($\beta = -.06$, $t = -1.37$, at $P > .05$) did not predict cyber bullying. Also, the result revealed that Smartphone is a significant predictor of cyber bullying ($\beta = .30$, $t = 6.52$, at $P < .01$). From the results it was clear that both perceived parenting styles and smart phone addition are implicated in cyber bullying among adolescents.

Keywords: Parenting, Smartphone, Cyberbullying, Addiction, Adolescents

Introduction

The interplay between adolescents' perceived parenting and smartphone usage has emerged as a significant area of inquiry, particularly concerning its implications for cyberbullying. As adolescents navigate the complexities of identity formation and social interaction, the influence of parenting styles becomes increasingly critical. Positive parenting practices characterized by warmth, support, and effective communication are associated with healthier psychological outcomes in adolescents, including higher self-esteem and lower rates of risky behaviours such as cyberbullying. Conversely, negative parenting styles may exacerbate feelings of inadequacy and lead to increased smartphone addiction, which has been linked to heightened engagement in cyberbullying behaviours.

At the heart of adolescent development lies the influence of parenting styles. Research has consistently shown that parenting practices play a pivotal role in shaping adolescents' social behaviours and emotional health

(Garaigordobil & Raúl, 2022). Authoritative parenting, characterized by warmth, support, and open communication, is linked to positive outcomes such as resilience and empathy (Ji et al., 2023). Conversely, authoritarian or neglectful parenting can lead to feelings of insecurity and loneliness, potentially increasing the likelihood of engaging in or becoming victims of cyberbullying. Research highlights that adolescents who perceive their parents as supportive and involved are less likely to engage in cyberbullying behaviours (Ji et al., 2023). For example, a study found that low levels of parental affection and high levels of conflict within the family are correlated with increased risks of cybervictimization and cyberaggression (Lingfei, 2023). This underscores the critical role that parents play in shaping their children's online interactions and emotional resilience.

Furthermore, the dynamics of parent-child relationships can influence adolescents' self-esteem and coping mechanisms, which are crucial in mitigating the effects of cyberbullying (Lumei, et al., 2018). Positive parenting practices not only foster emotional stability but also empower adolescents to navigate social challenges more effectively, thereby reducing their susceptibility to both victimization and perpetration in online environments. Simultaneously, the proliferation of smartphones has transformed how adolescents communicate and interact with one another. With nearly 95% of teens owning a smartphone, these devices have become essential tools for socialization (Lees, 2024). However, excessive smartphone use can lead to negative consequences, including addiction and exposure to harmful online content (Aviv, & Kristiana, 2022). Studies have shown that adolescents who spend significant time on their smartphones are more likely to experience cyberbullying either as perpetrators or victims due to the anonymity and distance that digital platforms provide (Baumann et al., 2022).

Research indicates that a substantial proportion of adolescents experience or perpetrate cyberbullying, with studies revealing that around 26.5% of adolescents have engaged in such behaviour (Media, 2024). The role of smartphone addiction is particularly noteworthy, as it not only facilitates access to online platforms where bullying can occur but also contributes to emotional distress and social isolation. This dual influence suggests that both perceived parenting quality and smartphone use are critical factors in understanding the dynamics of cyberbullying among youth. By examining the relationships between these variables, we can better comprehend how parenting styles may mitigate or exacerbate the risks associated with cyberbullying. Thus, understanding how perceived parenting and smartphone usage predict cyberbullying is crucial for developing effective prevention strategies. By identifying the protective factors associated with positive parenting and responsible smartphone use, stakeholders can implement targeted interventions that foster healthy online behaviours among adolescents. This research not only contributes to academic discourse but also serves as a foundation for practical applications aimed at reducing the prevalence of cyberbullying in today's technology-driven society. This understanding is also essential for developing targeted interventions aimed at reducing cyberbullying incidents and promoting healthier online interactions among adolescents.

Some theories were reviewed to explain the concepts investigated in the study. Hence, social learning theory (Bandura, 1963) posits that individuals learn behaviours through observation and imitation of others, particularly influential figures such as parents. In the context of cyberbullying, adolescents who observe negative behaviours such as aggression or hostility—modeled by their parents may be more likely to replicate these behaviours online. Conversely, positive parenting practices that emphasize empathy and conflict resolution can reduce the likelihood of adolescents engaging in cyberbullying. Research indicates that adolescents with neglectful or authoritarian parents are more likely to become involved in cyberbullying, either as perpetrators or victims, due to a lack of emotional support and guidance (Dehue, et al., 2012).

Thus, attachment theory (Bowlby, 1969) emphasizes the importance of secure emotional bonds between parents and children in shaping behaviour and emotional regulation. Adolescents who perceive their parents as supportive and involved are more likely to develop secure attachments, which can enhance their self-esteem and coping mechanisms. This emotional security acts as a buffer against the negative effects of cyberbullying. Studies have shown that weak emotional relationships with parents correlate with higher involvement in

cyberbullying, suggesting that secure attachments can mitigate risks associated with online aggression (Ensiyeh et al., 2023; Achuthan, et al., 2022).

In addition, family systems theory (Kerr, & Bowen, 1981) focuses on the dynamics within family units and how these dynamics influence individual behavior. This theory suggests that family cohesion and adaptability play crucial roles in adolescent development. Families characterized by open communication and supportive relationships can foster resilience in adolescents, making them less susceptible to engaging in or experiencing cyberbullying. Research indicates that perceived parenting styles mediate the relationship between family adaptability and cohesion and cyberbullying involvement, highlighting the importance of a healthy family environment (Ensiyeh et al., 2023)

However, problem behaviour theory (Jessor, 1991) suggests that problem behaviours in adolescents, such as cyberbullying, are influenced by various factors within their environment, including family dynamics and parenting styles. According to PBT, characteristics such as parental warmth, support, and effective communication can significantly impact adolescents' emotional stability and psychosocial development. The theory highlights that maladaptive parenting practices such as excessive control or neglect can increase the likelihood of adolescents engaging in cyberbullying behaviours (Ji, et al., 2023).

Finally the theory of planned behaviour (Ajzen, 1991) serves as the theoretical framework for the study and it posits that individual behaviour is influenced by attitudes, subjective norms, and perceived behavioural control. In the context of cyberbullying, adolescents' intentions to engage in such behaviours can be shaped by their perceptions of parental attitudes toward bullying and their own experiences with smartphone use. For instance, if adolescents believe their parents condone aggressive behavior online or do not provide adequate supervision, they may be more likely to engage in cyberbullying. Conversely, positive parental involvement can lead to healthier attitudes toward online interactions (Achuthan, et al., 2022; Ji, et al., 2023).

In summary, understanding the predictors of cyberbullying through these theoretical lenses provides valuable insights into how perceived parenting styles and smartphone usage interact to influence adolescent behaviour. By fostering positive parenting practices and promoting responsible smartphone use, stakeholders can help mitigate the risks associated with cyberbullying among adolescents, ultimately contributing to healthier online environments.

The relationship between adolescents' perceived parenting styles, smartphone usage, and cyberbullying behaviours has garnered significant attention in recent research. This empirical review synthesizes findings from various studies that explore how these factors interact to influence cyberbullying among adolescents.

Parenting Styles and Cyberbullying

A study conducted by Najjari et al. (2023) examined the mediating role of perceived parenting styles in the relationship between family adaptability, cohesion, and cyberbullying. The findings indicated that adolescents who perceive their parents as cold or indifferent are at a higher risk of being involved in cyberbullying, either as perpetrators or victims. The research emphasized that supportive parenting can mitigate the likelihood of cyberbullying by fostering better emotional relationships within families. Another investigation highlighted that adolescents with neglectful parenting styles were more likely to engage in cyberbullying behaviors compared to those with authoritative parenting. This study involved 1,200 youths aged 10-14 and confirmed that less responsive parenting correlates with higher instances of both traditional and cyberbullying (Dehue, et al., 2012).

Smartphone Addiction and Cyberbullying

The proliferation of smartphones addiction has created an environment conducive to cyberbullying. Research indicates that excessive smartphone use can lead to increased exposure to online aggression due to the anonymity it provides. A study involving 548 adolescents found that parental psychological control directly predicted cyberbullying behaviors, while parental autonomy support was associated with reduced cyberbullying through enhanced empathic concern towards others (Fousiani, et al., 2016). Moreover, findings from another study revealed that adolescents who spend significant time on their smartphones are more vulnerable to

cyberbullying, often using digital platforms to fill social voids created by poor family dynamics. This highlights the dual role of smartphones as both a tool for social interaction and a potential risk factor for negative online behaviours (Najjari et al., 2023). The empirical evidence underscores the importance of both perceived parenting styles and smartphone usage as predictors of cyberbullying among adolescents. Supportive and engaged parenting can serve as protective factors against the risks associated with excessive smartphone use, while neglectful or authoritarian parenting may exacerbate these risks.

Statement of the Problem

The rise of cyberbullying among adolescents has become a significant concern in contemporary society, with profound implications for mental health and social development. Research indicates that a substantial proportion of adolescents experience or engage in cyberbullying behaviours, often exacerbated by their interactions with smartphones and their perceptions of parenting styles (Nixon, 2014). Despite the increasing prevalence of this issue, there remains a gap in understanding how perceived parenting influences adolescents' engagement in cyberbullying, particularly in the context of smartphone use. Given the detrimental effects of cyberbullying on mental health, self-esteem, and academic performance (Gohal, 2023), it is crucial to explore these relationships further. Understanding how perceived parenting and smartphone use predict cyberbullying can inform targeted interventions aimed at reducing its prevalence and promoting healthier online interactions among adolescents. Therefore, this study aims to examine the interplay between adolescents' perceived parenting styles and their smartphone usage as predictors of cyberbullying involvement, contributing valuable insights into prevention strategies and support mechanisms for youth.

Purpose of the Study

The study investigated Adolescents perceived parenting and smartphone addiction as predictors of cyberbullying. Hence, the main purpose of the study are:

Adolescents perceived parenting will predict cyberbullying

Adolescents smartphone addiction will predict cyberbullying

Hypotheses

These hypotheses were tested in the study:

Adolescents perceived parenting will significantly predict cyberbullying

Adolescents smartphone addiction will significantly predict cyberbullying

Method

Participants

A total of 306 participants comprising 155 females and 151 males drawn from the population frame of Adolescent Students of Day Secondary Independence Layout (N = 108, 35%); Army Day Secondary School Awkunanaw (N = 102, 33%) and Uwani Secondary School (N = 98, 31%). The age ranges of the participants were between 13years and 17years. The mean and the standard deviation of their age were 15.31 and .99 respectively. Mixed sampling technique (systematic, purposive, simple random) was used to select the participants. Systematic sampling technique was used to select the schools; purposive sampling to select only the adolescent participants while simple random sampling technique was used to select the participant that participated in the study. The total no of participants was achieved with the use of Yamane (1967) sample size formula.

Instrument

Three types of instruments were used in the study; they are Parenting Care Scale (PCS), Big Five Inventory (BFI) and Drug Abuse Screening Test (DAST-10).

Smartphone Addiction Scale-Short Version (SAS-SV)

The SAS-SV (Kwon et al., 2013) is a 10 items with a 6-point Likert scale from 1 = strongly disagree, 6 = strongly agree developed to measure for assessment of smartphone addiction severity. Examples of items of the scale are: “Missing planned work due to Smartphone use”, “Having my Smartphone in my mind even when I am not using it” and “The people around me tell me that I use my Smartphone too much”. Total scores typically range from 10 – 60, with higher score indicating Problematic Smartphone Usage. Cronbach’s alpha for the scale across the whole group was 0.883, with 0.895 and 0.872 for male for female participants, respectively. The construct validity of SAS-SV has been verified in various cultures and countries (Kwon, 2013; Demirci, 2014; Lopez-Fernandez, 2017), and it is correlated with numerous measures (Yue, 2022; Yue, 2021), thus providing convergent and concurrent construct evidence for the validity of this scale.

Korean Parents as Social Context Questionnaire (PSCQ)

The 24-item PSCQ-Adolescent Report (Skinner et al., 2005) was used to measure the six parenting dimensions: (1) warmth, (2) rejection, (3) structure, (4) chaos, (5) autonomy support, (6) coercion. Each of the six dimensions contains four 4-point Likert scales (1= not at all true to 4=very true). In the study a list of possible caregiver figures was given (such as mother, father, grandmother, stepmother, sister/brother, other relatives) to accommodate participants who were not living with their parents. Thus, the participants were able to choose the caregiver that fitted their situation. Each subscale’s score ranges between 5 and 20, and higher scores on each sub-scale indicate greater levels of the corresponding parenting in that area. Internal reliabilities were as follows: warmth $\alpha = .78$, rejection $\alpha = .67$, structure $\alpha = .69$, chaos $\alpha = .60$, autonomy support $\alpha = .63$, and coercion $\alpha = .78$.

Korean parents as social context questionnaire

The Parents as Social Context Questionnaire (PSCQ; Skinner, Johnson, & Snyder, 2005) assesses the self-reported quality of multiple aspects of parenting style. The present study used the adapted Korean version of the PSCQ (K-PSCQ) (Egeli, Rogers, Rinaldi, & Cui, 2015; Jeong & Shin, 2011). Overall, the questionnaire comprises 30 items, for which respondents are asked to evaluate the extent to which they agree with a given statement about parenting on a 4-point Likert scale ranging from 1 (not at all true) to 4 (very true). The K-PSCQ contains six subscales: (a) warmth (e.g., “I set aside time to talk to my child about what is important to him/her”); (b) rejection (e.g., “At times, the demands that my child makes feel like a burden”); (c) structure (e.g., “I expect my child to follow our family rules”); (d) chaos (e.g., “When my child gets in trouble, my reaction is not very predictable”); (e) autonomy support (e.g., “I trust my child”); and (f) coercion (e.g., “My child fights me at every turn”). Each subscale’s score ranges between 5 and 20, and higher scores on each sub-scale indicate greater levels of the corresponding parenting in that area. Internal reliabilities were as follows: warmth $\alpha = .78$, rejection $\alpha = .67$, structure $\alpha = .69$, chaos $\alpha = .60$, autonomy support $\alpha = .63$, and coercion $\alpha = .78$.

Procedure

The researcher collected approval letter of identification from the department for the study. With the letter of identification for the study the researcher introduced herself to the Principals of the selected schools (Army Day Secondary School Awkunanaw; Community Secondary School Ugwuaji; Community Secondary School Ndiagu Amechi; Maryland Secondary and Uwani Secondary School Enugu). The Principals invited the class Form teachers and introduced to them the researcher and also narrated the purpose of the study. The class Form teachers took the researcher to the selected classes where she was introduced to the participants. The administration of the instrument took the form of group testing in their respective class rooms with the help of the Form teachers and the exercise lasted for two weeks. Only participants who are males and in Senior Secondary classes were administered the research instruments (purposive sampling). The researcher made use of simple random sampling by folding “Yes” and “No” in a paper where those participants that picked Yes

participated while those that picked No were sent out of the class. The participants were instructed that there is no right or wrong answer, no time limit and that they should not look at another person's responses. Hence, with the help of the Form teachers the researcher was able to administer the research instruments to the participant and they were collected at the point of administration. Out of the 380 copies of each of the research instruments administered, 361 copies were collected. However, only 310 copies (95%) that were correctly filled were the ones used in the study while 51 copies that were not properly filled were discarded.

Design and Statistic

The design for the study was correlational design. This is because the data for the analysis was collected via questionnaire with the interest to investigate the relationship between the study variables. Therefore, the researcher adopted Hierarchical Multiple Regression statistics to account for the contribution of each of the independent variable (Parenting Styles and Personality Traits) on the dependent variable (Substance Abuse).

Result

Table 1: Zero order correlation coefficient matrix showing Adolescents Perceived Parenting and Smartphone Addiction as Predictors of Cyber Bullying

	M	SD	1	2	3	4	5	6	7	8	9	10
Age	15.31	.99	1									
Gender	.51	.50	.13*	1								
Warmth	10.18	3.14	.61**	.43**	1							
Structure	9.84	2.49	.68**	.37**	.90**	1						
Autonomy Support	10.45	2.99	.52**	.49**	.82**	.79**	1					
Rejection	7.64	3.52	-.60**	-.47**	-.80**	-.79**	-.90**	1				
Chaos	7.00	3.38	-.57**	-.41**	-.80**	-.79**	-.88**	.98**	1			
Coercion	7.28	3.28	-.59**	-.46**	-.85**	-.83**	-.91**	.90**	.91**	1		
Smartphone Addiction	26.48	13.51	-.52**	-.48**	-.81**	-.82**	-.91**	.89**	.86**	.92**	1	
Cyber Bullying	13.44	10.23	-.48**	-.60**	-.78**	-.81**	-.89**	.92**	.91**	.90**	.92**	1
Coefficient of Determinant (r^2)					.61	.66	.79	.85	.83	.81	.85	

Note ** $p < .01$; * $p < .05$ Bold are relevant coefficient for research hypothesis

The result shows that Perceived Parenting (Warmth, Structure, Autonomy Support, Rejection, Chaos, Coercion) correlated significantly with Cyber Bullying. The table shows that correlation coefficients were as follows; Warmth and Cyber Bullying, $r = -.78$, $P < .01$, $r^2 = .61$; Structure and Cyber Bullying, $r = -.81$, $P < .01$, $r^2 = .66$; Autonomy Support and Cyber Bullying, $r = -.89$, $P < .01$, $r^2 = .79$; Rejection and Cyber Bullying, $r = .92$, $P < .01$, $r^2 = .85$; Chaos and Cyber Bullying, $r = .91$, $P < .01$, $r^2 = .83$; and Coercion and Cyber Bullying, $r = .90$, $P < .01$, $r^2 = .81$. Also, Smartphone Addiction correlated with Cyber Bullying ($r = .92$, $P < .01$, $r^2 = .85$)

Table 2: Summary of Hierarchical Multiple Regression Analysis for Variables Predicting Cyber Bullying (N=306)

	Step 1		Step 2		Step 3	
	β	t	β	t	β	t
Age	-.41	-10.17**				
Gender	-.55	-13.81**				
Warmth			-.24	-6.37**		
Structure			-.37	-9.84**		
Autonomy Support			-.06	-1.37		
Rejection			.38	4.17**		
Chaos			.20	2.42**		
Coercion			.20	4.35**		
Smartphone Addiction					.30	6.52**
R	.73		.97		.97	
R ²	.53		.94		.94	
ΔR^2	.53		.41		.01	
F	167.73(2,303)		317.81(6,297)		42.54(1,296)	

Note * $p < .05$; ** $p < .01$

Results of the hierarchical multiple regression for the test of the first factors of cyber bullying index is shown in the Table 1 above. The variables were entered in stepwise models. The demographic variable (age) in the Step 1 of the regression analysis and it had a significantly predicted cyber bullying negatively. Age, $\beta = -.41$, $t = -10.17$, $p < .01$. Also, the demographic variable (gender) significantly predicted cyber bullying negatively. Gender, $\beta = -.55$, $t = -13.81$, $p < .01$. Hence, the demographic variable (age and gender) serves as control variables in the study and that is why they are keyed in step 1

In step 2, Perceived Parenting (Warmth, Structure, Autonomy Support, Rejection, Chaos, Coercion) were entered. Warmth ($\beta = -.24$, $t = -6.37$, at $P < .01$); Structure ($\beta = -.37$, $t = -9.84$, at $P < .01$) Rejection ($\beta = .38$, $t = 4.17$, at $P < .01$); Chaos ($\beta = .20$, $t = 2.42$, at $P < .05$) and Coercion ($\beta = .20$, $t = 4.35$, at $P < .01$) dimensions of perceived parenting predicted cyber bullying while Autonomy Support ($\beta = -.06$, $t = -1.37$, at $P > .05$) did not predict cyber bullying. The contribution of perceived parenting in explaining the variance in cyber bullying was 41% ($\Delta R^2 = .41$). Therefore, perceived parenting is a significant predictor of cyber bullying among adolescents.

In step 3, Smartphone Addiction was entered and it a significant predictor of cyber bullying ($\beta = .30$, $t = 6.52$, at $P < .01$). The contribution of Smartphone Addiction in explaining the variance in cyber bullying was 01% ($\Delta R^2 = .01$). Therefore, smartphone addiction is a significant predictor of cyber bullying among adolescents.

Summary of Result

There is a significant predictor of adolescent's perceived parenting (Warmth, Structure, Autonomy Support, Rejection, Chaos, Coercion) on cyberbullying.

There is a significant predictor of adolescent's smartphone addiction on cyberbullying

Discussion

The present study have two major objectives, one is to assess if adolescent's perceived parenting (Warmth, Structure, Autonomy Support, Rejection, Chaos, Coercion) will significantly predict cyberbullying. Second, is to examine if adolescent's smartphone addiction will significantly predict cyberbullying. The result showed that perceived parenting (Warmth, Structure, Autonomy Support, Rejection, Chaos, Coercion) significantly predicted cyberbullying. Warmth dimension of adolescents perceived parenting negatively predicted cyberbullying. A negative beta coefficient indicates that higher levels of perceived parental warmth are associated with lower rates of cyberbullying. Warmth encompasses emotional support, affection, and

responsiveness from parents. Hence, Adolescents who feel loved and supported by their parents are less likely to engage in aggressive behaviours online. This suggests that fostering a nurturing environment can be a protective factor against cyberbullying. Also, Structure dimension of adolescents perceived parenting negatively predicted cyberbullying. Structure refers to the presence of clear rules and expectations within the family. A strong negative relationship indicates that adolescents who perceive their parents as providing structure are less likely to engage in cyberbullying. So establishing consistent boundaries and guidelines helps adolescents navigate social interactions more effectively, reducing the likelihood of harmful behaviours online.

On the other hand rejection dimension of adolescents perceived parenting positively predicted cyberbullying. The positive beta coefficient for rejection suggests that higher perceived parental rejection predicts increased instances of cyberbullying. Adolescents who feel rejected or unsupported by their parents may seek validation or power through cyberbullying others, highlighting the detrimental effects of negative parenting practices. In addition, chaos dimension of adolescents perceived parenting positively predicted cyberbullying. Chaos in parenting refers to a lack of organization and predictability in the home environment. A positive relationship indicates that chaotic parenting is associated with higher rates of cyberbullying. An unstable family environment can lead to emotional distress in adolescents, which may manifest as aggression towards peers online. Also, Coercive dimension of adolescents perceived parenting positively predicted cyberbullying. Coercive parenting involves using force or manipulation to control behaviour.

The positive relationship suggests that coercive tactics may lead to increased cyberbullying behaviours. Adolescents exposed to coercive parenting may internalize aggressive strategies as acceptable means of conflict resolution. While autonomy support dimension of adolescents perceived parenting did not predict cyberbullying. Autonomy support involves encouraging independence and self-direction in adolescents. The lack of significant predictive power indicates that this dimension does not have a direct impact on cyberbullying. While autonomy support is essential for healthy development, it may not directly influence cyberbullying behaviors; instead, it could interact with other factors. The findings underscore the complex role that perceived parenting plays in shaping adolescent behaviour regarding cyberbullying. Positive dimensions such as warmth and structure serve as protective factors, while negative aspects like rejection, chaos, and coercion increase the likelihood of such aggressive behaviours online.

The outcome of the study is in consonant with the findings of Najjari et al. (2023) and Dehue, et al., (2012). In their study their findings indicated that adolescents who perceive their parents as cold or indifferent are at a higher risk of being involved in cyberbullying, either as perpetrators or victims. The research emphasized that supportive parenting can mitigate the likelihood of cyberbullying by fostering better emotional relationships within families.

Further, the study showed that adolescent's smartphone addiction significantly predicted cyberbullying. This indicates a strong relationship where increased levels of smartphone addiction are associated with higher instances of cyberbullying. This suggests that adolescents who are more addicted to their smartphones are more likely to engage in cyberbullying behaviours, either as perpetrators or victims. Adolescents who spend more time on their smartphones are likely to be more exposed to online interactions, which can include both witnessing and participating in cyberbullying. The constant connectivity may create opportunities for aggressive behaviours that might not occur in face-to-face interactions. Smartphone addiction is often linked to mental health issues such as anxiety and depression, which can exacerbate aggressive behaviours. Adolescents struggling with emotional difficulties may resort to cyberbullying as a means of coping or exerting control over their social environment (Ji, et al., 2023)

Studies indicate that a significant percentage of adolescents report engaging in cyberbullying, with smartphone usage patterns contributing to this behavior. For instance, research shows that nearly 30% of respondents reported being involved in cyberbullying perpetration, correlating with their levels of smartphone addiction (Rocky, & Laxmi, 2022). In addition, researches indicates that excessive smartphone use can lead to increased exposure to online aggression due to the anonymity it provides (Fousiani, et al., 2016; Najjari et al., 2023).

Implications of the Finding

The findings from the study on adolescents' perceived parenting and smartphone addiction as predictors of cyberbullying have several important implications for various stakeholders, including parents, educators, mental health professionals, and policymakers.

The study emphasizes the importance of positive parenting styles characterized by warmth, structure, and support in mitigating cyberbullying. Parents should be encouraged to foster open communication, emotional support, and clear expectations to reduce the likelihood of their children engaging in or becoming victims of cyberbullying. There is a need for training programmes that educate parents on effective parenting strategies that promote healthy emotional development and resilience in adolescents. Workshops could focus on enhancing parental involvement and monitoring without being overly controlling.

Schools can implement programmes that educate students about the risks associated with smartphone addiction and cyberbullying. These programmes should also teach conflict resolution skills and promote empathy among peers. Mental health professionals should consider integrating family dynamics into counseling sessions. Addressing perceived parenting styles may help in developing tailored interventions for adolescents struggling with cyberbullying.

Policymakers should consider developing guidelines or regulations regarding smartphone use among adolescents, particularly in educational settings. This could include limits on screen time during school hours or promoting digital literacy programmes. Policies that support families facing challenges related to parenting styles and technology use could be beneficial. This might include access to family counseling services or resources that promote healthy family interactions.

Limitations of the Study

The study employed a cross-sectional design, which captured data at a single point in time. This limited the ability to establish causal relationships between perceived parenting, smartphone addiction, and cyberbullying. Longitudinal studies would be more effective in determining how these factors influence each other over time. Also, the study examines several dimensions of perceived parenting (Warmth, Structure, Autonomy Support, Rejection, Chaos, Coercion), it may not encompass all relevant aspects that could influence cyberbullying behaviours, such as parental involvement, monitoring practices, or cultural factors affecting parenting styles.

The study was conducted in a specific geographic area (Enugu), cultural and environmental factors unique to that location may not apply to adolescents in different other regions. This limits the external validity of the findings. The study may not adequately control for other variables that could influence both parenting perceptions and cyberbullying behaviour, such as peer relationships, socio-economic status, or mental health issues. These confounding factors could distort the observed relationships.

Suggestions for Further Study

Based on the outcome of the study the researchers suggests that future researcher should conduct longitudinal studies to examine how perceived parenting styles and smartphone addiction influence cyberbullying behaviours over time. This approach would help establish causal relationships and track changes in behaviour as adolescents grow.

Also, future researchers should expand the research to include diverse demographic groups across different geographical locations. This would enhance understanding of how cultural, socio-economic, and contextual factors influence the relationships between parenting, smartphone use, and cyberbullying. In addition, examine the psychological outcomes associated with cyberbullying, such as depression, anxiety, and self-esteem, in relation to perceived parenting styles and smartphone addiction. This could help identify protective factors that mitigate negative outcomes.

Conclusion

In conclusion, the study highlights the significant role of perceived parenting and smartphone addiction in predicting cyberbullying among adolescents. It emphasizes the necessity for interventions that address both parenting practices and the management of smartphone use to foster healthier online behaviours and improve adolescent mental health outcomes.

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